LA LETTRE DU

No 211 – April 2002

CEPII

CENTRE
D'ETUDES PROSPECTIVES
ET D'INFORMATIONS
INTERNATIONALES

Market Access: The Objectives after Doha

After failure in Seattle, the Doha Conference ended by establishing an agenda for a new round of multilateral trade liberalisation. It covers negotiations aimed at progressively withdrawing policies distorting agricultural trade, though progress in this field risks being limited. Under these circumstances, improving market access for agricultural and industrial goods could constitute the main area of progress in the new round. Although average levels of protection are now relatively low, an analysis of 5000 products shows that their dispersion and the presence of tariff peaks still create strong distortions. The simulations carried out with the mirage model indicate that implementing the Doha agenda in the field of market access could lead to gains that are twice as important as those of the Marrakech agreement. The major share of these gains is conditional on the inclusion of tariff peaks in the negotiations.

The completion of the Uruguay Round in Marrakech in 1994 finalised a new stage in multilateral trade liberalisation. Cuts in customs tariffs and their consolidation, the suppression of quantitative obstacles to trade, the specific agreement reached on agriculture, the progressive reintegration of the textiles and clothing sectors into the non-discrimination rules of the GATT heralded not just a new reduction in the obstacles to trade, but also greater transparency in the instruments of protection. However, the failure of the Seattle Conference in 1999, aimed at launching a new multilateral round, highlighted the prevailing dissensions. Given that the main negotiating parties did not share a common, strong political consensus, the new WTO (of which perhaps too much was expected) was unable to push multilateral trade liberalisation forward. Further doubts then arose over the benefits to be reaped from globalisation, while developing countries became increasingly aware of the influence they could wield in the new organisation.

In the wake of Seattle, efforts were made to revive the dialogue with the developing countries, and to lend a certain credibility to the North's commitment to the liberalisation process. This allowed the Doha Conference to end by the establishment of a new agenda, which puts considerable stress on improving market access in agriculture and industry[1]. On agriculture, the agenda also envisages negotiations on the progressive withdrawal of all forms of export subsidies, as well as on reductions of internal support where this leads to trade distortion. Nevertheless, progress on these latter issues risks being limited: the recent US Farm Bill marks a change in tack among Northern countries in favour of significant domestic support for agriculture. This is in complete opposition to the arguments that have been put forward since the early 1990s which stress how such policies destabilise world markets. Under these conditions, improving market access could indeed constitute the major advance of the new round in the fields of agriculture and industry.

Market Access at the Heart of the New Agenda

It may be considered as surprising that improved market access is still the primary objective of negotiations, both for agricultural as well as for non-agricultural goods. A rapid inventory of world protectionism does indeed show that average customs duties are low. It is estimated, for example, that the tariff equivalent of European Union's protection measures for all goods, and for all exporters to the Union is less than 10%[2].

So what makes reducing duties so important? What are the advantages to be gained from holding negotiations between 144 countries on customs duties which should no longer constitute an important obstacle to trade? After all, transport costs, which are often higher, do not prevent trade.

1. Cf. Articles 13 and 16 of the Ministerial Declaration adopted the 14 November 2001.
2. MAcMaps (see Box 1) yields an average of slightly less than 9%. The OECD states 9.5% (*Post-Uruguay Round Tariff Regimes: Achievements and Outlook*, OECD, Paris, 1999) and Patrick Messerlin provides a figure of 12% ("Measuring the Cost of Protection in Europe", *European Commercial Policy in the 2000s*, Institute of International Economics, Washington, 2001). The differences arise from different methodologies.

Several answers may be given to these questions:

- First, the dispersion of duties, and not their average rate should be considered. The social cost of protectionism is proportional to the square of the protection. Setting a 2% duty on one product and a 12% duty on another, though both goods are equally important to trade, is more costly than establishing a uniform 7% duty.
- The escalating nature of duties (with transformed products carrying higher duties) is an obstacle to the export of transformed products from countries which traditionally export raw materials. While such escalation is less important nowadays, it has not disappeared with the Uruguay Round.
- Tariff peaks are numerous: it is not unusual for duties to rise to 100% or more. Such peaks are, by nature, highly protectionist and merit special attention. They are currently one of the main obstacles to the negotiations.
- Moderate duties (of average value) may have protectionist consequences that are not negligible, if the price elasticity of demand is high.
- As for low customs duties, they are merely just additional transaction costs, which is why they are generally qualified as nuisance duties. Their suppression will not expose protected activities to a surge in competition and will only have a limited impact on customs revenues and would entail a clear benefit for private agents.

These answers make it possible to establish the outlines of a successful negotiation on trade liberalisation; the reduction in tariff dispersion, implying a non-linear formula for reducing tariff peaks; the systematic reduction of moderate tariffs, and the straightforward suppression of nuisance duties. This is exactly what the Ministerial Declaration in Doha proposes, besides the specific treatment of developing countries which aims to provide them with less constraining time schedules for implementing liberalisation[3]. What are the likely consequences of these measures?

A General Equilibrium Analysis

The impact of measures for sectoral trade liberalisation on the whole of an economy is often examined in terms of their expected effect on competition in sectors that import strongly. Alternatively, from a more mercantilist standpoint, the impact may be examined in terms of the new markets liberalisation creates abroad. Neither approach is fully satisfactory. The analysis needs to take into account interactive effects on quantities and prices, in all goods, services and factor markets, both within the economies concerned and internationally. However, this so-called general equilibrium approach is complex, which explains why it is only ever applied with a limited sectoral breakdown (fifty industries at most). The effects of liberalisation are then analysed on the basis of cuts in protection at this sector level, whereas negotiations are carried out at the level of tariff lines (there are, for example, 16,132 for the European Union).

This approach leads to errors related to problems of aggregation. A simple example bears this out. Let there be a sector which only has two products, of equal importance. These are protected by a 10% and an 18% tariff. The average level of protection in the sector is then 14%. To cut the dispersion of tariffs, it is then decided to apply a non-linear formula to bring down protection: tariffs less than 15% are cut by 10%, whereas tariffs over 15% are cut by 50%. The overall cut in tariff protection for the sector will then amount to 10% (the average rate of will fall from 14% to 12.6%). But, a calculation at the level of the products indicates that the average tariff for the sector has fallen to 9%, equivalent to a fall of 36%. The effect of liberalisation is therefore massively underestimated when calculated on aggregated data.

To avoid such problems, the CEPII together with the International Trade Centre (ITC)[4] has developed a research programme linking a database of the obstacles to trade MAcMaps (see Box 1) to a general equilibrium model MIRAGE (see Box 2). This makes it possible to study several hypotheses relating to the reduction of protection, at a detailed product level. The results can then be aggregated at the sectoral level, so as to study their consequences, while taking into account the general equilibrium constraints which exist within economies as well as within world trade.

Box 1: The MAcMaps Database

The MAcMaps (Market Access Maps) database has been developed by the ITC and the CEPII to calculate levels of bilateral protection (to take into account the different regimes applied to a product by each country with its trade partners) and to aggregate such protection. The original information is that given per tariff line. It is based on calculations made on raw data provided by the UNCTAD's TRAINS database, national data, the AMAD database, the inclusion of national notifications made to the WTO of anti-dumping proceedings. Lastly, the data is rendered coherent with the UN's COMTRADE database. MAcMaps measures market access to 137 countries for 223 exporting countries, at the bilateral level. A specific aggregation procedure makes it possible to consolidate data for 5,000 products and 137 countries into the number of sectors and regions used in the MIRAGE model.

Reference: A. Bouët, L. Fontagné, M. Mimouni & X. Pichot (2001), "Market Access Maps: a Bilateral and Disaggregated Measure of Market Access", CEPII *Working Paper*, No 01-18.

Several general equilibrium estimates were conducted at the time of the Uruguay Round[5]. As for Doha, no overall estimation of the impact of liberalising market access in

3. Article 16 of the Ministerial Declaration.
4. UNCTAD-WTO, Geneva.
5. A number of these drew on the RUNS Model which was jointly developed by the World Bank and the OECD, see in particular I. Goldin, O. Knudsen & D. Van der Mensbrugghe (1993), *Trade Liberalisation: Global Economic Implications*, OECD and World Bank, Paris; see also T. Nguyen, C. Perroni & R. Wigle (1993), "An Evaluation of the Draft Final Act of the Uruguay Round", *Economic Journal*, 103 (421), pp. 1540-49.

industry and agriculture has yet been carried out[6] at the product line level. The estimates made by the CEPII are thus the first detailed estimates to be published. They should be read bearing in mind that at this stage they only relate to plausible scenarios from improving market access, as the exact terms of the negotiations are still unknown.

BOX 2: MIRAGE

(Modelling International Relationships in Applied General Equilibrium)

The MIRAGE model is a world model designed to measure the short to medium term effects (up to around 20 years) of trade policy. It is a computable general equilibrium model. It is based on a microeconomic description of agents' behaviour, while taking into account the equilibrium constraints of each market, each economy and of international trade.

MIRAGE integrates imperfections in competition, foreign direct investment, as well as differences in quality between products made in developed countries and those fabricated in developing countries. The dynamic, sequential framework makes it possible to describe the inertias and costs of adjustment following trade liberalisation, in a context in which the creation of new firms is progressive and in which installed capital is mobile.

The model draws on GTAP5 data produced by the University of Purdue and on the MAcMaps (Market Access Maps) database of protection. The model makes it possible to distinguish between 66 regions or countries, 57 sectors and 5 factors of production (skilled labour, unskilled labour, capital, land and natural resources).

Reference M.H. Bchir, "Y. Decreux, J.L. Guérin & S. Jean (2002), "Mirage, A General Equilibrium Model for Trade Policy Analysis", CEPII *Working Paper*, forthcoming.

Four Scenarios

Four scenarios for the reduction of the tariff equivalent of all instruments limiting market access[7] are studied at the level of 5,000 products. The reduction of protection is set to be spread out over 6 years for the developed regions of the world, and 10 years for the developing countries. The latter will thus benefit from special treatment.

Baseline scenario (Scenario A) assumes a uniform 35% reduction on the initial level of protection. The two other scenarios vary according to the way they handle tariff peaks of protection, in other words, tariffs above 15% for industrial products, and above 85% for agricultural products. Tariff peaks remain unchanged in Scenario B, while they are evened out in Scenario C, meaning that the tariff cut is proportionally higher, the higher the initial tariff level[8]. Lastly, Scenario D is the same as C, but is based on a more limited commitment to cut tariffs by developing countries[9]. Each scenario also assumes the elimination of nuisance tariffs (less than 2%).

The results for these scenarios are constructed for 137 countries and 5,000 products, which then need to be aggregated using the classification of the model. The latter includes 41 sectors (22 in agriculture, 16 for industry, one for raw materials and 2 for services) and seven regions, which are relevant given the positions expected to be held in the negotiations: the United States, the European Union with 25 members (EU25)[10], Japan, the Cairns group[11], developing Asia, the ACP (African, Caribbean and Pacific) countries, and the rest of the world. It is thus possible to obtain quantified scenarios for trends in protection, whose consequences can be simulated using the MIRAGE model.

Larger Gains Compared to Marrakech

The simulations conducted indicate that the different scenarios will lead to trade creation for all the regions considered (see Table). When compared to a scenario which assumes no liberalisation, trade could rise by between 4% and 8% for the European Union, depending on the scenario, and by between 4% and 18% for developing Asia. The way tariff peaks are handled plays a key role: trade creation is twice as important when they are included in the scenarios of trade liberalisation, and it is noticeably stronger when

Table - The medium term effects of four scenarios on the liberalisation of market access (in %)

	UE25	United States	Japan	Cairns	Developing Asia	ACP countries	Other	World
				On trade				
(a) Uniform	6.9	5.6	7.1	6.9	12.8	8.6	8.8	7.5
(b) Uniform excluding peaks	4.6	4.2	4.7	3.5	4.7	2.7	4.4	4.3
(c) Evening out peaks	7.9	6.4	8.3	8.7	18.4	10	12.3	9.5
(d) Asymmetric evening	7.7	5.6	7.1	7	13	5.8	9.4	7.8
				On the terms of trade				
(a) Uniform	0.1	0.4	0.6	-0.4	-0.3	-1.6	-0.4	-
(b) Uniform excluding peaks	0	0.2	0.2	0	-0.1	-0.6	-0.2	-
(c) Evening out peaks	0	0.6	0.6	-0.6	0	-2.1	-0.4	-
(d) Asymmetric evening	-0.2	0.3	0.3	-0.3	0.4	-1.3	-0.1	-
				On welfare				
(a) Uniform	0.38	0.18	0.86	0.3	0.8	0.43	0.55	0.42
(b) Uniform excluding peaks	0.14	0.09	0.29	0.14	0.28	0.26	0.2	0.16
(c) Evening out peaks	0.55	0.24	1.45	0.35	1.07	0.41	0.79	0.61
(d) Asymmetric evening	0.47	0.12	1.29	0.39	0.91	0.29	0.7	0.51

Note: All the results are for spreads obtained 15 years after the accord, expressed in % with respect to the reference scenario in which protection is unchanged.
Source: Simulations by authors, using the MIRAGE model.

6. Several estimations limited by sector and region have been put forward, with no detail provided at the product level (see e.g. A. Rae & A. Strutt, "The Current Round of Agricultural Trade Negotiations: Why Bother about Domestic Support?", paper presented at the 5th *Conference on Global Economic Analysis*, Taipei, June 2002).
7. These instruments include ad valorem duties (in %), specific duties (in dollars per unit), tariff quotas (a certain quantity may be imported at a reduced tariff), prohibitions, and anti-dumping duties.
8. The so-called Swiss formula, used during the Tokyo Round is applied: $T_{final} = aT_{ini}/(a + T_{ini})$. The coefficient is defined in order to ensure the continuity of the curve in the reduction of duties as a function of their initial level. For industry, for example, a is such that the initial tariff of 15% falls by 35%, i.e. a = 0.28. For agriculture, a = 1.58.
9. Developing countries are assumed to cut their protection by 20% for products which are not protected by a tariff peak, and the Swiss formula is applied to the coefficient yielding a lower cut than previously.
10. The 25-member Union retained here assumes enlargement to include 10 new members.
11. This group covers 22 countries (including Canada, Australia, New Zealand and Brazil) seeking trade liberalisation in agriculture.

peaks are evened out. The sectoral disparities are marked. The greatest increases take place in food and agriculture: assuming the evening out of peaks (Scenario C), the model suggests there could be as much as a doubling of trade volumes for milk products, transformed rice and sugar. In industry, the textiles, clothing and leather goods sectors exhibit the strongest rises, of about one third.

The impact on the terms of trade, that is to say the price of exports by a zone relative to the price of its imports provides some indication of the balance of trade concessions. The deterioration in the terms of trade experienced by the developing regions in the first three scenarios indicates that the liberalisation conceded by these regions exceeds that of their partners. This slight imbalance stems from the proportionality rule for cuts in duties, which are most often adopted during negotiations and are included here. This rule implies cuts in duties which, in absolute terms, are more important for zones that are the most protected, in this case the developing countries. From this point of view, Scenario D, which reduces the concessions made by these regions inverts the situation of developing Asia, but not that of the ACP countries.

Certain sectors that are subject to imports are not competitive enough to benefit from the opening up of foreign markets, given the stronger foreign competition they face. This is the case of most textile, clothing and leather industries in the developed countries. They are estimated to experience a significant cut in protection, of up to 5 to 10%, or even more for leather products. In developing countries, the automotive sector is affected in most cases. But it is Japanese agriculture which suffers the greatest decline in net production, leading to a real fall in income for landowners, which could be higher than 10%. The trend is similar for European agriculture, though to a lesser degree (the cut in the same income does not exceed 0.7%). Generally speaking, however, better access to foreign markets for the most competitive exporting sectors and lower prices on imported foreign goods are the main benefits of liberalisation. In all the scenarios studied here, all regions benefit, as is borne out by the rise in welfare[12] estimated for all cases, fifteen years after the agreement is signed. At that point in the future, skilled and unskilled labour as well as capital will have experienced a rise in real income, in all regions of the world, for all scenarios. The reason for this outcome is twofold: first, the liberalisation process and the associated costs are spread over time; second, the multilateral and balanced nature of the scenarios under study avoids strong diversion effects.

During the last round, the WTO announced gains of 0.86% in a scenario of imperfect competition, which was comparable to the one developed here[13]. It may be estimated that 0.22 percentage points of this gain was due to market access[14]. The gain estimated here, assuming a plausible evening out of peaks and preferential treatment for developing countries (Scenario D), is therefore twice as large. By transforming quantitative barriers into tariff instruments, the Marrakech agreement greatly opened up the scope for negotiations on market access. The comparison of different scenarios also underlines the relevancy of treating tariff peaks: the gains are four times smaller when tariff peaks are excluded from the agreement (the comparison of Scenarios C and B). Asian agriculture illustrates this best. But it is a general rule: tariff peaks lead to strong distortions and they are sufficiently frequent for their suppression to yield substantial gains.

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12. Welfare is the most coherent way of quantifying the overall benefit to agents. In the present situation, it may be assimilated to the real wealth of an economy.
13. At the time, such announcements were made more in value than percentage terms, with a potential gain of $300 billion often being put forward.
14. 26% of the total gains came from the cuts in customs duties, and 10% from the "agricultural package". The remainder followed from the suppression of the Multi-Fibre Arrangement and voluntary export restraints.

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WEB site: **www.cepii.fr**
ISSN 0243-1947

CCP n° 1462 AD
2nd Quarter 2002
April 2002

Imp. ROBERT-PARIS
Imprimé en France