



AgEcon SEARCH
RESEARCH IN AGRICULTURAL & APPLIED ECONOMICS

The World's Largest Open Access Agricultural & Applied Economics Digital Library

This document is discoverable and free to researchers across the globe due to the work of AgEcon Search.

Help ensure our sustainability.

Give to AgEcon Search

AgEcon Search

<http://ageconsearch.umn.edu>

aesearch@umn.edu

*Papers downloaded from **AgEcon Search** may be used for non-commercial purposes and personal study only. No other use, including posting to another Internet site, is permitted without permission from the copyright owner (not AgEcon Search), or as allowed under the provisions of Fair Use, U.S. Copyright Act, Title 17 U.S.C.*

International Agricultural Trade
Research Consortium

Trade Update Notes

Report of the Task Force on
Tariffication and Rebalancing*

Working Paper #89-6

The International Agricultural Trade Research Consortium is an informal association of university and government economists interested in agricultural trade. Its purpose is to foster interaction, improve research capacity and to focus on relevant trade policy issues. It is financed by USDA, ERS and FAS, Agriculture Canada and the participating institutions.

The IATRC Working Paper series provides members an opportunity to circulate their work at the advanced draft stage through limited distribution within the research and analysis community. The IATRC takes no political positions or responsibility for the accuracy of the data or validity of the conclusions presented by working paper authors. Further, policy recommendations and opinions expressed by the authors do not necessarily reflect those of the IATRC.

This paper should not be quoted without the author(s) permission.

*Task Force Members: Tim Josling (Chair), Stanford University, Maury Bredahl, University of Missouri-Columbia, Larry Deaton, Economic Research Service, USDA, Karl Meilke, University of Guelph and Stefan Tangermann, Institut für Agrarökonomie der Universität Göttingen

Correspondence or requests for additional copies of this paper should be addressed to:

Dr. Timothy Josling
Food Research Institute
Stanford University
Stanford, California 94305-6084

December 4, 1989

Outline of Report

Executive Summary

Introduction	1
1. Tariffication as an Aspect of Trade Reform	3
a) Advantages and drawbacks of tariffs	3
b) The place of tariffs within the GATT	5
c) Tariffication and other aspects of negotiations.	6
2. Tariffication in Practice	9
a) Choice of policies to convert to tariffs	9
b) Choice of levels and base periods	11
c) Impact of tariffication on specific markets	14
3. Rebalancing and Trade Policy	18
a) The case for rebalancing levels of support	18
b) Rebalancing and GATT obligations	21
c) Rebalancing and other aspects of negotiations	22
4. Rebalancing in Practice	24
a) Instrumentation of Rebalancing	24
b) Levels of "balanced" protection	26
c) Impact of rebalancing on specific markets	28
5. Tariffication and Rebalancing as Elements in a Package	31
a) Compatibility of T and R	31
b) Linking T and R with Other Aspects of the Negotiations	32
c) Implications for Other Countries of T and R	34
Conclusions	37
Appendix	

TARIFFICATION AND REBALANCING

Executive Summary

The Uruguay Round Mid-Term Agreement of April 1989 invited countries to make detailed proposals on changes in existing agricultural trade policy. Among those aspects of policy change mentioned were "tariffication, decoupled income support, and other ways to adapt support and protection." "Tariffication" referred to the objective set out in the US proposal of November 1988 that countries should convert all non-tariff import barriers to fixed tariffs, which would then be reduced by negotiation. The "other ways" to adapt policies was understood to include "rebalancing" protection, along the lines favored by the EC. Such rebalancing would imply the increase in levels of protection of certain commodities presently entering without tariffs, in conjunction with a lowering of high levels of protection in other related markets.

Tariffs are generally regarded as the least undesirable form of import protection. They are transparent, non-discriminatory, predictable and negotiable. They introduce competition into the marketplace and ensure that importing countries share in trade adjustments to world market developments. On the other hand, importers often use non-tariff import measures for a reason. State trading, variable levies and import quotas are often in place to support domestic objectives. Changing to tariffs may involve modifications to domestic marketing arrangements and the introduction of alternative stabilization policies. As a result, it is likely that tariffication will involve difficult negotiations even if every country could agree in principle on the merits of such a move.

Rebalancing involves different issues. It is a reflection of domestic policy problems. Undue support in one sector can lead to a spill-over of the problems to other related sectors. The EC, in arguing for rebalancing, is seeking a way to relieve some specific domestic problems. In particular, the EC would like to raise protection on soybeans, vegetable oil and meals and starchy products that substitute for cereal in feed rations. Such increased protection would require GATT negotiations to agree on compensation for any injury to exporters: the Uruguay Round presents an opportunity to combine this process with other negotiations on agricultural trade.

The conversion of non-tariff import measures to fixed tariffs would bring agriculture closely into line with the rules of the GATT for other products. Future negotiations on

agricultural trade would be greatly facilitated. Tariffication could also solve certain other tricky problems. Arbitrage in the market implies that in general a country can not set an export subsidy higher than the level of tariff (or other form of import) protection. In this sense, tariffication could help to avoid the issue of negotiating limits on export subsidies in the GATT. However, tariffication does not assist with solving the problem of domestic subsidies. Conversion of such subsidies to tariffs would not be desirable nor has it been suggested. An alternative way to control these domestic subsidies would still need to be employed. Moreover, some overall measure of the level of support from the various border and non-border policy instruments (the AMS) would still be useful to monitor the progress of liberalization.

Several technical issues arise in the conversion of non-tariff import measures to tariffs. One has to decide on the level of tariff that replaces the other measures. This may often involve comparison of domestic and world prices. It may also matter which base period is chosen for such a comparison. Some non-tariff trade barriers allowed in the GATT for other reasons (such as under Article XX on grounds of health and safety) may have to remain "untariffed". The US has recently suggested that a tariff-rate quota, fixed at the level of current imports, be used to safeguard the exporter from a possible reduction in market access from the introduction of too high a tariff. Similarly, under the US proposal the importer would have some safeguard against a surge in imports arising from the introduction of a tariff.

Rebalancing raises somewhat different problems in the context of the Uruguay Round. Though the EC is keen on such rebalancing, overseas interest will be hurt by the imposition of further trade restrictions on non-grain feeds and oilseeds and products. One should perhaps treat this issue as part of a request-and-offer approach to trade negotiations, where the EC's request would have to be matched by its willingness to yield to the requests of others in other areas. In the context of the reconsideration of GATT rules, rebalancing seems to offer little progress: there seems to be no interest in generalizing the ECs suggestion by mandating "balanced" protection in other countries. However, rebalancing could be consistent with the notion of negotiating support reductions using an AMS if the aggregate support reduction target covered several commodities. Negotiated AMS reductions by commodity would not, however, allow significant rebalancing.

How rebalancing is to take place will influence its acceptability. Introducing variable levies for oilseeds and non-grain feeds in the EC would seem to be problematic for exporters: introducing fixed tariffs could have negative trade effects, in particular in oilseeds, where they would replace direct payments. Voluntary export restraints would seem to give away less GATT rights on the part of exporting countries than would unbinding EC tariffs, and might even give an economic gain. On the other hand, such VRAs would not be consistent with the attempt to liberalize trade. A tariff rate quota could provide benefits to the exporter and be more consistent with the objective of the trade talks. In the end, acceptability would largely depend upon the levels of reduction and increase in protection in the commodities involved in rebalancing.

It would seem that as tariffication is of direct interest to the US and rebalancing a central objective of the EC, that a package including both would be attractive. Other countries would have to go along with both tariffication and rebalancing for such a solution to be effective. Tariffication poses difficulties for countries where domestic marketing agencies control import levels. Rebalancing causes concern to developing countries supplying oilseeds and animal feed ingredients to the EC. On the other hand, tariffication offers developing countries the prospect of more stable world prices, and rebalancing could benefit countries that export commodities such as beef to the EC.

Although tariffication and rebalancing might seem to form part of a US-EC deal, there is also the danger that negotiations could fail as a result of an open conflict on either or both issues. In this respect, both elements have to be taken in conjunction with other aspects of the negotiations. A strong commitment to support reduction would make it easier to agree to some modest rebalancing. An agreement on export subsidies could make the prospect of removing non-tariff import barriers easier to countenance. And a move toward decoupled policies for income support would make tariffication, removal of export subsidies, and even rebalancing more manageable tasks. The reinstrumentation of domestic support policies and the reduction in the level of such support remains the fundamental condition under which the trade rules can be revised and the trading system for agricultural products can be improved.

International Agricultural Trade Research Consortium

Trade Update Notes

Report of the Task Force on Tariffication and Rebalancing

Introduction

The Task Force has been asked to address the issues of "tariffication and rebalancing" (T and R) in the context of the Uruguay Round of negotiations on agriculture. Tariffication refers to the conversion of all non-tariff import measures to fixed tariffs. It is seen both as a desirable policy change and as a first step toward reduction of the levels of protection presently implied by non-tariff import barriers. Rebalancing implies modification of levels of protection to achieve a better balance between closely related products. In the context of the GATT round, rebalancing would be accomplished as a part of the overall reduction in trade barriers and support levels. Tariffication is an avowed negotiating objective of the US, and rebalancing is being championed by the EC. Success or failure in these two aspects of the negotiations will go some way to determining the outcome of the Uruguay Round in agriculture.

The GATT Work Programme for agriculture, which came out of the Mid-Term Agreement in April, specifies six areas in which detailed proposals are invited by December 1989. These six areas are:

- the terms and use of an aggregate measure of support;
- strengthened and more operationally effective GATT rules and disciplines;
- the modalities of special and differential treatment for developing countries;

- sanitary and phytosanitary regulations;
- tariffication, decoupled income support, and other ways to adapt support and protection;
- ways to take account of the possible negative effects of the reform process on net food-importing developing countries.¹

Tariffication clearly comes within the fifth of these items, along with other aspects of the "reinstrumentation of national policies." It is generally understood that "rebalancing" is included among the "other" ways in which support could be adapted.

In June 1989 the US tabled a discussion paper which dealt specifically with the issue of tariffication.² It also forms a major plank in the comprehensive proposal submitted by the US in October 1989.³ The EC has yet to table a paper on rebalancing, but it is clear that it sees success in this area as important to its own negotiating objectives. This report is designed to clarify some of the issues that lie behind the US and EC positions, and to develop constructive ideas to further the negotiations in Geneva.

¹ GATT, Mid-Term Agreement on Agriculture, para 11.

² US Discussion Paper on Tariffication.

³ Submission of the United States on Comprehensive Long-Term Agricultural Reform, October 25, 1989.

1. Tariffication as an Aspect of Trade Reform

The concept of tariffication (the conversion of non-tariff import barriers to tariffs) was first introduced into the Uruguay Round by the US in its submission to the agricultural negotiating group of November 1988.⁴ The idea had previously been proposed by the US to the GATT Committee on Trade in Agriculture (CTA) in February 1985, but found little support from other countries. Paarlberg suggests that it was at that time "an improvised international accompaniment" to the Administration's 1985 Farm Bill proposal, which proposed a radical scaling down of domestic farm support.⁵ Its re-emergence at this stage of the negotiations reflects concern on behalf of US export interests that the negotiation of general reductions in support might not yield quick and tangible improvements in market access. It also reflects satisfaction in the US with the outcome of bilateral talks with Japan which yielded an agreement to convert that country's beef import quota system to tariffs. But no matter what the motive behind the proposal, it is clear that the issue is firmly on the table in the GATT talks as a major part of the US approach to the negotiations.

a) Advantages and drawbacks of tariffs

Tariffs have clear advantages over other import barriers--at least, to the exporter. They are transparent, negotiable, relatively stable and apply equally to all exporters, subject to any preferential arrangements. Compared with the arbitrariness of licenses, the volatility

⁴ There was no mention of tariffication in the original (July 1987) US proposal, which recommended the phasing out of all trade-distorting policies. Similarly the November 1988 paper does not mention the use of an aggregate measure of support as a way of monitoring the progress of liberalization. The links between tariffication and the use of an AMS are discussed below.

⁵ Robert L. Paarlberg, Fixing Farm Trade: Policy Options for the United States, Council on Foreign Relations, 1988, p. 60.

of variable levies, the capriciousness of state trading and the uncertainty of quotas, a tariff is a benign trade barrier. While they may not be able to eliminate the biases often found in internal distribution systems, they will tend to introduce more competition and openness in such markets. As emphasized by the US paper, tariffs also help to ensure that importing regions share in adjustments to market shares and trends. World price variations are transmitted to domestic markets when the only protection is a tariff.

To the importer, however, the situation is less clear cut. Non-tariff measures are usually in place for a purpose. State trading is often a reflection of the role of government in domestic marketing as well as in international commerce: switching to tariffs will require more than just a trade policy shift. Variable levies are designed to stabilize domestic prices: tariffs do away with such domestic market stability.⁶ Import quotas are often used as ways of conferring direct benefit to particular exporting countries, and may be a part of a country's overseas development policy: tariffs ensure that the "rent" from the trade restriction is collected by the importing country and does not accrue to the developing country exporter.⁷ Import quotas also provide stability in employment to refining activities and port facilities. Licenses confer market regulation power to public bodies which under tariffication may need to be replaced by some other controls. In short, the conversion to tariffs may not be without cost for the importer, however much the exporter would prefer that means of protection. It follows that "tariffication" will have to be negotiated just as would as any other policy change.

⁶ In the case of the EC, where domestic prices are fixed annually, the switch to tariffs would completely change the role of the Council of Ministers in determining agricultural policy.

⁷ Tariff-free quotas, or agreements to refund tariff revenue, could be implemented if necessary to meet development objectives.

b) The place of tariffs within the GATT

The tariff is the preferred protective instrument within the GATT. Article XI states that "no prohibitions or restrictions other than duties, taxes or other charges, whether made effective through quotas, import or export licenses or other measures, shall be instituted or maintained" on trade between contracting parties.⁸ Such price-based measures give all the advantages of transparency noted above. Moreover, the level of tariffs admissible under the GATT are generally bound, and hence cannot be changed without notification, consultation and compensation to injured parties.⁹ Conversion of non-tariff measures to bound tariffs was a major thrust of the early years of the GATT. Agriculture largely "escaped" this movement, partly through exceptions written into the GATT articles and partly by deregulations, such as that given to the US in 1955, which allowed quantitative import restrictions to remain as part of domestic farm policy. Any widespread conversion of agricultural NTBs to tariffs would therefore be a major step in the direction of incorporating agriculture fully into the GATT.

Conversion to tariffs not only simplifies the treatment of existing trade barriers within the GATT, it also makes negotiations much more straightforward. The reduction of tariffs within the GATT has been the most notable success of that organization. The Kennedy Round (1963-67) reduced tariffs by about 35 percent, using the approach of an "across-the-board" formula; in the Tokyo Round (1974-79) the reduction was about 30

⁸ The Articles goes on to exclude quantitative restrictions on agricultural trade subject to certain conditions. The issue of adapting the GATT articles is not pursued in this report. For a full discussion of the issue of rule changes see Bettina Hartwig, Timothy Josling, and Stefan Tangermann, "Design of New Rules for Agriculture in the GATT," report prepared for NCFAP/RFF, September 1989.

⁹ Zeitz and Valdes point out the importance of binding tariffs. A variable levy could be thought of as an unbound tariff, varying at the discretion of the EC authorities in Brussels. Once a tariff is bound it can no longer be used as a domestic stabilization device in this way. See J. Zeitz and A. Valdes, Agriculture in the GATT: An Analysis of Alternative Approaches to Reform, IFPRI, Research Report No. 70, Washington, D.C., November 1988.

percent.¹⁰ Tariffs are now generally low on industrial goods, many in the range of 5-8 percent, and do not form a major impediment to trade. The proponents of tariffication argue that the new agricultural tariffs arising from conversion will also be successfully reduced, either by special agreement or in the context of general tariff negotiations--at least over a period of years.

c) Tariffication and other aspects of negotiations.

The April Agreement which completed the Midterm Review left open the question of the means for meeting the objective of a long-run reduction in trade-distorting support. The goal was to be achieved "through negotiations on specific policies and measures, through the negotiation of commitments on an aggregate measure of support....., or through a combination of these approaches."¹¹ The use of an aggregate measure of support (AMS) is favored by the EC, while the US sees a more limited role for such a measure. Within the Cairns Group views differ on the role of an AMS. - Canada has generally argued for a more central place for an AMS, whereas Australia has been less keen on such a development. How tariffication fits in with the AMS approach is therefore a key issue for the negotiations.

At the conceptual level, tariffication and the use of an AMS are not alternative modes of negotiation. Tariffication is a policy change, whereas the use of an AMS is an agreement on how to measure the level of support. Conversion of all non-tariff import

¹⁰ For a discussion of tariff cutting in the pre-Uruguay Rounds, see Robert E. Baldwin, "Multilateral Liberalization," in J. Michael Finger and Andrzej Oelchowski (eds.), The Uruguay Round: A Handbook on the Multilateral Trade Negotiations, World Bank, Washington D.C., 1987.

¹¹ GATT, Mid-Term Agreement, para 6.

barriers to fixed tariffs would make an AMS approach easier, but no less relevant. If, in addition to tariffication of import barriers, all other instruments of support were decoupled (and export subsidies banned), then the AMS becomes the tariff, and the measurement issue becomes trivial. So long as policies other than tariffs remain, then the AMS will be necessary as a way of providing monitoring information on the totality of policy impacts on trade. Thus, even those in favor of eventual tariffication might wish initially to negotiate limits on overall support through the AMS.

At the practical level it would appear that there is somewhat more "competition" between the move to tariffs and the use of an AMS. Tariffication seems to provide an alternative focus for the US (and other exporters) to use to pry open foreign markets. The approach has had some success in the case of the Japanese beef market: the implicit assumption is made that the EC feed grain market will yield to the same remedy. Use of a tariff by the EC would also "recouple" the European market to the world price level, and assist in market adjustments. With limited supplies of negotiating capital, making a push for tariffication as a means of de-clawing the CAP would clearly be at the expense of the broader AMS approach. If exporters viewed an AMS approach as being less than totally effective in opening up markets, either because of a poorly conceived AMS variant or the cunningness of governments in avoiding its implications, then the switch of emphasis could be attractive to them.¹²

The US has made it clear that tariffication cannot carry the whole burden of trade reform. Export policies and domestic subsidy issues have also to be addressed in the negotiations. There has been no suggestion that the US would be happy with tariffication

¹² In addition, tariffication has the convenience of removing the anomaly of Section 22 quantitative restrictions that presently require the GATT waiver.

alone. On the other hand, in any set of negotiations priorities have to be set. The final negotiated package will not contain all the elements on each country's shopping list. At this fundamental level the introduction of tariffication is bound to have an impact on the progress in other areas of agricultural negotiation.

2. Tariffication in Practice

Whatever the merits of tariffication at a conceptual and strategic level, the actual implementation of tariffication poses a number of issues. As the possibility of tariffication has been introduced only after two years of negotiations, it has had less discussion in the GATT and outside.¹³ Among the issues that arise are the inclusion of policies to convert to tariffs, the choice of base period and tariff level: in addition it is useful to see how tariffication might apply to particular commodity situations.

a) Choice of policies to convert to tariffs

The argument for tariffication usually rests on the comprehensive conversion of all non-tariff import barriers to fixed tariffs (ad valorem or specific). These would include quotas, variable levies, minimum import prices, state trading, and the use of restrictive import licenses, as well as voluntary export restraint (and voluntary import expansion) agreements. These policies all act at the border and relate directly to trade.¹⁴ The notion of tariffication is weakened if it only relates to some types of trade barriers (e.g., quotas): problems of transparency and market isolation would still exist. Such ad hoc tariffication could form part of a traditional request/offer negotiation on specific policies and commodities. A formulation for widespread adoption would need to be more comprehensive. It might, for instance, cover all non-tariff import measures that are not explicitly allowed for in GATT articles (such as those justified under Article XX on grounds of health and safety).

¹³ It is perhaps worth noting here, however, that while tariffication with respect to agricultural trade has only been the subject of fairly recent discussion, the long experience with it with respect to industrial goods trade reform in the Tokyo Round gives it a background in tackling many of these problems.

¹⁴ Some other practices, such as long-term bilateral agreements and conditional import authorizations could also be included if thought to be significant impediments to trade.

Though not suggested in the US proposal or currently under discussion in the GATT, it would be conceptually possible to tariff policies which do not act at the border. A consideration of the problems to which this might give rise illustrates the importance of limiting tariffication to the conversion of border measures. Many domestic policies influence trade, by changing incentives to domestic production, by increasing costs to consumers, or by imposing health and other regulations which impede commerce. In principle, there is a "tariff equivalent" (TE) of all such policies, at least for importing countries.¹⁵ The TE will be that tariff which will have the same effect on trade (i.e., volume of imports) as the policy in question. But imposing a tariff of this level may have unwanted consequences. If the policy were in the form of a producer subsidy, with consumers buying at world market prices, the imposition of a tariff at the TE level will imply a fall in producer prices. The tariff that would keep producer prices the same would reduce market access.¹⁶

There is a more fundamental problem with the conversion of domestic (as opposed to import) policies to tariffs. Many policies are specifically aimed at particular situations. A fertilizer subsidy may be aimed at increasing fertilizer use; a credit subsidy may be aimed at encouraging investment. Trade policies, such as tariffs, may be clumsy and inefficient ways of achieving these specific objectives. This issue is particularly relevant to developing countries, who (in spite of the attraction of tariff revenues) may not find tariffs a satisfactory substitute for more carefully targeted development policies.

Tariffication is, of course, not designed to deal with export policies. It could,

¹⁵ The tariff equivalent of a domestic measure in an exporting country runs into semantic difficulties. There will, however, be an "export subsidy equivalent" in such cases.

¹⁶ For a fuller discussion of this point see the discussion of the choice of instruments for rebalancing, in section 4(a), below.

however, have an important limiting effect on such policies. Most countries that run export subsidy policies also maintain barriers (often quotas) against imports. Without such back-up policies, goods exported at a lower price than ruling on the domestic market could be reimported. In the absence of high transport costs, such arbitrage would ultimately defeat the object of the export subsidy. In this important sense, tariffication extended to areas where imports do not presently exist (i.e., to the export commodities of the major trading countries) could prove a valuable "back door" way of dealing with export problems.

If such an indirect approach is not convincing, one could think of an analogy with tariffication that could relate to export subsidies. Though no name exists for such a concept ("export subsidication"?), it is straightforward to describe its implications. The replacement of variable export subsidies and indirect assistance to exporters with fixed subsidies (which would presumably be bound) could be an advantage over present arrangements. Such subsidies would be transparent and could be reduced by negotiation. On the other hand, many of the same problems arise as with tariffication. A fixed export subsidy does not satisfy the needs of a policy designed to unload domestic surpluses and maintain internal prices. Any attempt to persuade exporters to fix such export subsidies would entail the risk that they would be set at high levels and become a more permanent part of export strategy. Export subsidies to get rid of occasional surpluses may be temporarily disruptive, but their institutionalization in the market could be more serious over time. For these reasons, export subsidies (and domestic subsidies in exporting countries) are more appropriately dealt with by either rule changes or by inclusion in an AMS.

b) Choice of levels and base periods

A tariff might be in principle preferable to a non-tariff measure: in practice it will depend on the height of the tariff and the extent to which it can be negotiated down over time. Choosing the initial height of the tariff is not straightforward. The decision will have both technical and political components. At the technical level, it is possible to envisage the tariff that would maintain the level of imports that would have entered under the non-tariff barriers. The US proposal suggests a simple way of calculating this tariff equivalent—that of taking the price gap between domestic and world prices.¹⁷ This price gap will approximate the tariff equivalent under competitive conditions, but in many cases there may be trade implications from such a procedure.¹⁸ How serious this discrepancy is will depend on the circumstances.¹⁹

The real virtue of tariffing the price gap is its simplicity, both in terms of technical requirements as well as political acceptability. But the price gap method is not without major problems. Under the price gap approach, some commodities may face higher trade barriers than before. This will be the case if the price gap overstates the "true" impact of the non-tariff border measure on price. "High" price gaps are particularly visible in Japan, where the government has argued that imports (of rice, beef and oranges) would tend to sell for less than the domestic product in free trade. Exporting countries will be concerned to minimize this overstatement where it exists. As a consequence, the US comprehensive proposal of October 1989 suggests tariff-quotas in an interim period, where the exporter can

¹⁷ See the appendix for details of tariff calculations that might be used in three specific cases. The appendix also discusses alternative methods for reducing the tariff over time, once established.

¹⁸ Problems that arise in non-competitive markets are described in Brad C. Gehrke and Maury E. Bredahl, "Converting Non-Tariff Barriers to Tariffs: Case of Non-Equivalence," (unpublished).

¹⁹ An alternative procedure would be to calculate the tariff that would give the same domestic support to producers, i.e., the same PSE.

be assured of at least the level of access available before tariffication. The tariff quotas would expand over time.

Importers will be more concerned with the other possibility, of an understatement of protection levels. If the imported food would normally sell for more than the domestic product, the price gap will be less than the impact of protection. In this case, using the price gap to fix the tariff will cause domestic prices to weaken. This could be the case in developing countries, where the imported commodity may sell into a limited urban market at a price distorted by exchange controls.²⁰ A tariff based on the price gap, in place of other policies, could lead to a rapid increase in imports. For this reason, the US comprehensive proposal makes the suggestion that safeguards be put in place to guard against sudden increases in import levels.

There are other problems with the use of a price gap to measure the needed tariff. In some cases, there will be imported goods that really have no domestic substitute. In other cases there will be goods which would have been imported under lower trade barriers: but since they were not imported, there are no established import prices to use. Then there is the question of the definition of goods. Groups of products which under the SITC headings, for example different types of cheeses, currently enter some countries under quotas. In such cases, the problem will be one of computing price indices for composite domestic goods, and calculating composite world reference prices to compare with the domestic price.

In addition to the method of calculating the tariff, the base year chosen for the calculation will clearly make a difference to this height. The negotiation over base periods

²⁰ At the extreme, there may even be negative price gaps, where world prices appear above domestic prices. Presumably no "tariffication" of these negative gaps is envisaged.

(as in the case of the AMS) will determine whether liberalization is actually achieved. Choosing a base period where world prices were low (as in 1986) will clearly tend to build in high levels of protection and put a greater burden on reduction schedules. On the other hand, this may be the only way to get agreement by the importers.

On the political level, the fact that tariffs are not perfect substitutes for non-tariff import barriers will tend to make importing countries extract a "price" for tariffication. In particular, if variable levies have been high in the period prior to negotiations, it may be difficult to resist the argument that an equitable tariff will include all that protection against low prices. Importers who have argued for years that world prices are artificially depressed will start to argue that they must be prepared for such conditions and include in the tariff protection against such dumping. Whether much liberalization could be expected in such circumstances is doubtful. And if world prices rose, then internal prices in importing countries could be increased considerably by the conversion to fixed tariffs.

c) Impact of tariffication on specific markets

Discussion of tariffication as an option for the trade negotiations must ultimately come down to its impact on individual commodities and policies. One way of testing such a translation from concept to application is to look at a few of the existing policies which seem to be most troublesome to international trade. Listed below are twelve policies which might constitute a reasonable test of any negotiated outcome: if these policies are not influenced significantly, then the talks will have achieved little. They could be thought of as the "dirty dozen" of industrial country policies. Tariffication addresses many but not

Selected Developed Country Agricultural Policies
of Key Significance to the Agricultural Negotiations

Country	Commodity	Major Instrument	Tariffication
1. US	Cereals	Deficiency Payments	No
		Export Subsidies	(Yes)
2. US	Sugar	Import Quotas	Yes
3. US	Dairy	Import Quotas	Yes
4. EC	Cereals	Variable Levies	Yes
		Export Subsidies	(Yes)
5. EC	Dairy	Variable Levies	Yes
		Export Subsidies	(Yes)
6. EC	Beef	Variable Levies	Yes
		Health Regulations	No
7. EC	Sugar	Variable Levies	Yes
8. EC	Oilseeds	Production Subsidies	No
9. Japan	Rice	State Trading	Yes
10. Japan	Sugar	Import Levies	Yes
11. Canada	Cereals	Transportation Subsidies	No
		Direct Payments	No
12. Canada	Dairy	Import Quotas	Yes

"No" implies that tariffication will have little impact.

"Yes" implies that tariffication could be substituted for named policy.

"(Yes)" implies that tariffication will have an indirect effect which may constrain the policy in question.

all of the trade problems raised by these policies.

The impact on the US of an agreement on tariffication would have a direct effect on the policies for sugar and dairy products. At present, import quotas are maintained under the domestic price support regimes, tolerated by the GATT as a result of the 1955 Waiver.²¹ Conversion to tariffs would remove the anomaly of the waiver and could be seen as constructive by potential exporters of dairy products. Sugar exporters, by contrast, might expect compensation for the loss of quota rents presently accruing to them in the US market. Return of tariff revenue to the developing country sugar suppliers could resolve this issue. Domestic sugar and dairy interests, presently against tariff protection, might be persuaded to accept this change in policy as a part of an international agreement.

Though the main deficiency payment and supply control programs would be untouched by tariffication, US cereals policy would be affected indirectly if tariffs were introduced to replace measures designed to prevent reimportation. The effectiveness of US export subsidy programs would be undermined if widespread reimportation were allowed. Imports of barley from Canada, rice from Thailand and wheat from Argentina are examples of actual or potential trade flows resulting from US export subsidies. The introduction of fixed tariffs would put an upper limit (the tariff plus the cost of shipping and handling) on the level of export subsidy.

EC policy would be radically affected by an agreement to tariffify. This constitutes both the main reason why negotiating such an agreement will be difficult and also a major incentive to try. The variable levies used for cereals, dairy products and beef would have to be replaced with fixed levies. These tariffs in turn would limit the level of export

²¹ For a discussion of the impact of changing to tariffs in the US dairy and sugar market see Steve Neff and Tim Josling, "An Economic Analysis of the Impact of Removing Section 22 Dairy and Sugar Quota Restrictions," (unpublished), January 1989.

subsidies, as reimportation would act to prevent subsidies exceeding the tariff plus handling and shipping costs. Enough examples of such "carousel" trade exist to bring home the practicality of this point. Present variable levies for many EC export commodities are higher than necessary (i.e., there is "water" in the levies), and the method of calculation of the tariff will be important (see Appendix).

The changes in the Common Agricultural Policy (CAP) that tariffication would imply are far-reaching. The focus would shift from annual negotiations in the Council of Ministers over farm price levels: internal prices would follow world price developments. One would expect other forms of price stabilization to develop, such as an active stock policy, or a move toward income stabilization (as in Canada). The intervention mechanism would be indirectly weakened, as it would be generally impossible to maintain an open-ended commitment to buy at a fixed price at a time when prices were falling on world markets. Other causes of trade friction, such as EC oilseed subsidies and beef hormone regulations would not be challenged by tariffication, though the former might potentially be converted to a tariff under a rebalancing proposal.

The impact of tariffication on Japan would be felt largely through the modification to the marketing structure for domestic and imported produce. In the case of rice, where only limited private trading is allowed, tariffication could imply an extension of private trading. If the only restriction allowed on imports was a fixed tariff, then importing firms could compete with the state agency in the domestic market. In practice, such a development will probably occur in the absence of tariffication, but the pace of change could be accelerated by the trade negotiations. Whether such changes would give rise to substantial rice imports depends upon the level of tariffs set, which in turn will be

influenced by the method used to calculate the tariff equivalent (see Appendix). Japanese sugar imports, subject to a variety of duties and levies, and carefully controlled by a state agency, could increase with tariffication--again depending upon the height of the tariff.

Tariffication should have less of an impact on Canadian import policies, with the exception of those for the dairy sector, and little effect on domestic and export policies for grains. The dairy industry is characterized by supply management which keeps domestic prices at a relatively high level. Cheese imports are governed by quota, and other dairy products are prohibited or tightly restricted. In principle, it is possible to set a tariff at a level which would maintain the same price as do present import restrictions. In practice, the impact of domestic supply management is altered by the existence of a fixed tariff. The world price plus the tariff provides an upper bound to the extent to which prices can be raised by supply control. A fall in world prices would lower domestic prices, with supply management powerless to stop the impact on domestic producers. On the other hand, variations in domestic output and demand would have less effect on price, as the availability of imports would add stability to the domestic market.

There is no doubt that domestic policy in these various country and commodity situations could be changed to incorporate a fixed tariff in place of non-tariff import measures. The fact that such a change implies a modification in domestic policy acts as a reminder that tariffication is not just a technical matter confined to trade policy discussions. The chances for tariffication would seem to be better if accompanied by policies which enhance domestic market stability and by a reduction of trade (and output) regulation.

3. Rebalancing and Trade Policy

The phrase "rebalancing" has come to refer to a particular set of issues in agricultural policy. The EC has for some time been aware of the fact that different levels of support and protection in closely related agricultural markets lead to problems. Similar issues are of concern in other countries: most governments pay attention to relative prices when setting policies. But the problem has become particularly acute in the EC. High levels of protection for certain commodities, such as cereals, milk and products, sugar and olive oil, contrast with low levels of protection for oilseeds, vegetable oils and non-grain feed ingredients. Surpluses of grains (wheat, and more recently feed grains), of butter and skimmed milk powder (non-fat dried milk), and potential surpluses of olive oil have been blamed in part on the low levels of protection on imports of substitute products. Rebalancing, in the context of the GATT talks, thus has a fairly precise meaning. It refers to the ability of the EC to establish some type of import controls on non-grain feeds and on oilseeds and oilseed products at the same time as support is reduced for cereals (and possibly for dairy products, sugar and olive oil).

a) The case for rebalancing levels of support

A case can be made that an unbalanced level of protection can create more distortions to agricultural markets than a balanced level of protection. Economic theory would suggest that a uniform tariff, for instance, is generally more efficient than a schedule of disparate rates as a way of shielding import-competing sectors from exchange rate distortions. This would hold so long as the uniform tariff is set at or below the (weighted)

average of the disparate tariff rates. Indeed, a uniform tariff coupled with a similar uniform export subsidy may cause even less resource allocation distortion: trade policy, in effect, would merely cancel out the distortions generated by the exchange rate misalignment.

Free trade is an example of a uniform tariff, where the uniform tariff rate is, of course, zero. This will tend to be the "best" uniform tariff for a small country, under the standard assumptions of competitive markets. However, if an importer has the power to influence world prices, the "optimum" tariff may be neither zero nor uniform. A different level of tariff will be needed to exploit market power in each separate market. Similarly, if protection is granted by non-border measures (such as producer subsidies, or subsidies on inputs) to correct some perceived market failure, the optimal level of those subsidies will differ depending upon the magnitude of the divergence that the policy aims to correct.²² As a result, there is no theoretical reason why uniform protection will always be better than unbalanced protection, and a strong presumption that it will often be worse.

The argument for balanced protection is better considered in terms of policy administration. A high level of price support in one sector will shift demand to other products, some not even available when the protection is first given. This increases the cost of the price support policy both in terms of budget outlay (as exports increase or imports decrease) and trade conflicts. To correct the problem, either the price support has to be reduced in the favored product or consumption of the related product must be curbed--or both. If the "imbalance" is unintentional and serves no purpose, then rebalancing would seem to represent a sensible policy correction. Whether this can be done without

²² Not all subsidies can be justified on grounds of correcting market failures. Some are maintained on dubious grounds of supporting domestic production to increase self-sufficiency, while others are largely political responses to requests from well-organized special interests. Uniform protection does not satisfy these criteria for subsidies.

further budget costs or trade disruptions depends upon the circumstances under which it is tried.

If the EC persists in granting protection in cereal markets (i.e., charging prices to users that are above world market levels), then some policy problems can be reduced by putting a similar tax on use of non-cereal feeds while reducing protection for cereals. This would also have beneficial budgetary impacts, decreasing spending on grain export subsidies and (potentially) bringing in revenue on non-cereal tariffs, which would make it attractive in domestic political terms.²³ Domestic interests that would be hurt by such change would include animal feed compounders, who have invested heavily in facilities at the ports; oil processors; manufacturers of margarine, and other vegetable oil-based food products, and not least, consumers of these products. The impact on livestock farming would depend on the balance between grain price cuts and non-grain feed price increases.²⁴

The problem with rebalancing is that even if it reduces or leaves unchanged the overall level of protection, it can have significant impacts on particular trade flows. It matters little to the foreign supplier that such trade flows are themselves a result of the imbalance in protection, and the domestic policy problems caused by "disharmonies" matter even less. Uneven protection creates its own constituency. US soybean producers have as much vested interest in the continuation of the unbalanced policies as do EC cereal farmers: the former have benefitted from the latter's political strength.

²³ Whether there would actually be an additional revenue from non-cereal imports depends on the instrumentation of rebalancing (see below).

²⁴ A study performed for the EC Commission looked at some of the implications of reducing "disharmonies" in EC policies. See U. Koester, et al, Disharmonies in EC and US Agricultural Policy Measures, EC Publications Office, Luxembourg, 1988.

More specifically, US soybean producers may lose from both aspects of rebalancing. They would lose from new EC duties on oilseed imports. On the other hand, they would also lose from a cereals price cut in the EC. Though the cereal price cut is supposed to compensate third country exporters, it would impair the rights of cereal-substitute producers. Hence, the solution to the rebalancing dilemma is inherently more difficult than that of reducing protection in one single market. The protection increase in the unprotected sector will raise problems which could essentially stop progress in all sectors. Harmonized protection levels may be desirable in itself, but it may be possible that at a time of trade negotiations "you cannot get there from here!"

b) Rebalancing and GATT obligations

These issues would be serious enough if EC rebalancing merely threatened exporters of soybeans, corn gluten feed, etc. with loss of markets. It is made much more problematic by the fact that the low protection on these products is bound in the GATT. Agreements in the Dillon Round of GATT negotiations led to a zero binding on import duties for oilseeds and meals, and in the Kennedy Round the tariff on cassava pellets was bound at six percent. The EC could adjust these bindings (i.e., adjust or withdraw the "concession" made to its trading partners) but it must enter into consultations and negotiations with the principal supplier and probably with other interested parties.²⁵ These negotiations would have to lead to compensation for lost market access, a difficult problem if the US argued that such compensation should be in agricultural trade. In the absence of compensation, the injured parties could retaliate with trade sanctions against the EC.

²⁵ The consultations have also to include the country with whom the initial concession was negotiated. See GATT Article XXVIII and the discussion in Koester, *et al.*, p. 19/25.

The "complication" of the GATT binding has other implications. In political terms the EC binding of a zero soybean duty is regarded by exporting interests in the US as one of the few benefits conferred by GATT discussions. The "price" that would have to be paid by the EC to get the US to agree to the unbinding of the zero duty, within the context of the Uruguay Round, would be high. It would certainly have to include some irreversible changes in the CAP which could be sold domestically in the US as having equivalent value.

c) Rebalancing and other aspects of negotiations

Under the traditional request-and-offer type of trade negotiation, rebalancing would be explicitly "on the table," to be discussed along with the policies of others. The EC would presumably have to offer a reduction in grain market protection, conditional upon a higher tariff on non-grain feeds and oilseeds. Other countries would decide whether they were interested in striking a deal with the EC for policy changes of their own. The Uruguay Round has opened up the possibility of a different form of negotiation. If an AMS were used, then the exercise of rebalancing takes on a very different complexion. If the overall level of AMS across all commodities were bound, the EC could rebalance its protection within that constraint. The attraction of the AMS approach for the EC may not be entirely unrelated to this possibility, and it may also account for some of the US concern about the effectiveness of an AMS reduction (unless to zero) to open up markets.

On the other hand, it is of course possible to devise AMS rules that would prevent significant rebalancing. Sector-by-sector AMS targets would not allow protection to be raised in the oilseed and cereal by-product markets. Even without such sectoral limits, a side condition could be imposed which would constrain any increase to less than a

particular percentage.²⁶ The EC would presumably object to an AMS which allows no degree of rebalancing at all. Indeed, it appears that the EC expects rebalancing to be dealt with separately from, and outside of, any type of AMS arrangement. Moreover, if AMS commitments should relate to producer support only, rather than to consumer taxation, the substitution of an import duty on oilseeds for the current EC deficiency payments would as such not affect the AMS commitment of the EC.

The AMS approach offers a new context in which rebalancing can be achieved, but it does not solve the problem that a "concession in the hand is worth two in the bush." Given the general mistrust in the US of the intentions of EC policymakers, the reductions in CAP protection that balanced the increases would have to be credible and secure. It is unlikely that a loose agreement to reduce an AMS would be satisfactory without the guarantee of a GATT binding. However, an AMS based on variable world prices and exchange rates may also be too volatile a measure to bind. Reductions in a fixed-base AMS, such as suggested by the EC, could be bound for a transitional period--in essence, binding domestic policy prices. Under these conditions, a "country plan" (such as suggested by the US) could contain the details of the rebalancing. Exporters would know that the reductions and the increases in protection were equally controlled for the duration of the agreement.

²⁶ One example of such a side-constraint has been suggested by Franklin, who suggests that there could be a 10 percent limit on any protection increase. See Michael Franklin, Rich Man's Farming: The Crisis in Agriculture, RIIA, London, 1988, p. 82.

4. Rebalancing in Practice

However much one might argue the merits of rebalancing at a conceptual level, the issue is one of practical politics. In the EC there are differences of opinion among member states on the merits of rebalancing protection. Livestock farmers tend to take a view different from that of cereal farmers in the EC, and the agricultural processing and supply industries are very much involved in the issue. The feeling in the US also varies by industry, and rebalancing would have uneven effects on different export sectors. It will all come down to the instrumentation of rebalancing, the levels of balanced protection, and the needed compensation for those who lose by rebalancing, which depends upon the impact on specific markets.

a) Instrumentation of Rebalancing

The type of policy changes used to implement rebalancing can affect their acceptability. The EC would, if it could proceed without any constraints, probably prefer that non-grain feeds and oilseeds could be included in the Community's regime of variable levies. However, given the general thrust for getting away from variable levies in the GATT, it appears unlikely to be agreement on new variable levies in a sector where they didn't exist so far. Another solution would be tariffs on imports of grain-substitutes and oilseeds. This has the advantage of using an instrument of support which is transparent and negotiable--and which is apparently consistent with the US emphasis on tariffication of import barriers.²⁷

Converting a policy of protection through deficiency payments to a tariff poses a

²⁷ This option was explored in the "Disharmonies" study prepared for the EC Commission. Koester *et al.* (1988).

particularly serious problem. A tariff which gives the same price to producers as a deficiency payment will reduce imports. The reason is simple: a deficiency payment is "decoupled" on the consumption side. The consumer pays in taxes rather than at the food counter. The tariff is a fully coupled policy, the support coming through the market in proportion to consumption and production.²⁸ If, however, a deficiency payment were converted to a tariff with the same trade effect (the tariff equivalent), then the producer price would drop in the protected market. It is not clear why the exporter would wish to impose this reduction on the importer for no gain in access.

A third option would be to enter into voluntary export restraint agreements with all those suppliers of non-grain feeds which are not yet covered by existing self-restraint agreements. From the point of view of the countries exporting non-grain feeds into the EC, an export restraint agreement might--if any new regime is being considered at all--be the least objectionable solution. In purely economic terms, a self-restraint agreement might even be of benefit to the exporting countries. In legal terms, a voluntary export self-restraint agreement would give away less of the rights of exporters than would an unbinding of EC tariffs on non-grain feeds. On the other hand, export restraint agreements would imply all sorts of technical and legal problems. Moreover, it would be politically difficult for the exporters, who have always claimed that they wanted free access to the EC market, to agree to a new restriction which they themselves would have to implement. Such arrangements may have to offer the prospect of eventual unimpaired market access.

²⁸ Converting a policy which is decoupled or partially decoupled on the producer side will also negate any presumed beneficial trade effects. This is likely to be the case where supply control (or expenditure limitation) policies are in effect. Such policies are, however, more likely to be found in exporting countries.

A fourth option would be a tariff quota under which a given quantity would be imported into the EC at low duties, while imports in excess of that quota would be levied at a higher rate. For example, the EC could seek an agreement according to which it would continue to import the current volume (or the volume in a given base period, or the current volume plus x percent) at the existing low or zero duties, while any growth of imports beyond that base volume would be subject to higher (possibly prohibitively high) levies or tariffs.²⁹

From the point of view of the EC such a tariff quota may be a particularly attractive option. It would provide the "security" which some people in the EC seek, in terms of making sure that any attempts by the EC to reduce its domestic cereals production are not undermined by increasing inflows of non-cereal feed ingredients. At the same time, it would not make the situation for EC livestock producers and feed compounders more difficult than it currently is (though it would, of course, worsen their situation relative to what it might have been with other arrangements). For similar reasons this option may be more palatable for exporters than a flat rate duty.

b) Levels of "balanced" protection

It is clear that the EC's emphasis on rebalancing is mistrusted in the US. As a result, the act of rebalancing per se would have to be seen as resulting in a significant reduction in protection, at least on cereal if not on other products. Such a reduction would have to be such as to offer to the US the prospect of increased corn sales or of significantly

²⁹ Such a solution would be similar to the existing arrangement between the EC and the non-Thai exporters of manioc. In this arrangement, the levy on above-quota imports would be equal to the levy on barley imports which means that for all practical purposes it is prohibitive.

less competition for wheat export markets. It is unlikely that a 5-10 percent cereal price cut would be enough to meet this criterion: a reduction of 20-25 percent in cereal prices could make a significant impact on demand.

One way of linking rebalancing with liberalization would be to focus on the price of compound feeds. If the combination of price cuts for cereals and price increases for other feed ingredients was to result in a significant decrease in compound feed price, then demand for ingredients would expand in total. In addition, livestock farmers would benefit-unless the "rebalancing" reduced their own output prices by more than enough to offset this effect. The feed price would act as a convenient index of protection, and the method of calculating it could be agreed upon in the GATT. Should a fall in the value of this index require too large a cereal price cut, the EC could offer direct payments of a temporary nature to cereal farmers, paid in part by increased corn levies and savings on wheat export subsidies.

Attractive as this option may be, it is not without analytical and conceptual difficulties. In particular, there can be ambiguities regarding the reference situation. For example, according to its "stabilizer" scheme, the EC is in the process of reducing, gradually, its support prices for cereals. Hence, it could be that without any cereals price reduction beyond that resulting from the "stabilizer" scheme, the absolute price of compound feed goes down even with a (modest) increase in the duties on substitute imports. Thus, in principle, the compound feed formula approach to the quantification of rebalancing would work only if it were possible to specify the future development of EC cereals prices in the absence of any agreement on rebalancing. The actual negotiations may come close to this principle in the sense that negotiators may seek agreement on the general design of support

reduction which would apply to all participating countries. This could precede the separate set of negotiations between the EC and substitute exporters in which agreement would be sought on rebalancing and on the additional reductions in cereals support which the EC would have to achieve.

Whether such a "compound feed formula" approach to the quantification of rebalancing would work would also depend on the instrumentation of rebalancing. For example, if the tariff quota option were chosen it would be difficult to estimate the effect which this regime may have on substitute prices in the EC.

c) Impact of rebalancing on specific markets

It is likely that in the end a predominantly political agreement will have to be sought on the extent of new restrictions (if any) to EC imports of non-grain feeds. A major factor in these negotiations will be the type and size of compensation which the EC can offer.

Without compensation, rebalancing has to offer enough in the way of price reductions to offset the price increases. If compensation is paid in other areas of trade, then this would make it less necessary to achieve a balance of advantages in the feed and oilseed sectors alone. The EC may feel that it cannot reduce cereal prices enough to offer significant market expansion. In that case, some part of the compensation could come in other areas. The problem is that cereal by-products and soybean sales from the US to the EC tend to dominate the sales of other agricultural products. It is not clear what concessions the EC could give that would make up for any losses in the market for soybeans and corn gluten

feed.³⁰ This depends largely on the specific impact of rebalancing on individual markets.

The impact which rebalancing would have on specific markets would, of course, depend on the size of tariff and price changes in the EC. One particular set of such policy changes has been analyzed in a comprehensive project, the "Disharmonies" study.³¹ In this study it has been assumed that the EC institutes a 10 percent import tariff on all oilseeds and meals, as well as on all cereal substitutes, while it reduces its cereal prices, as well as producer prices of oilseeds, by 20 percent.³² Such policy changes would have significant effects in the EC, on world markets and for exporters.³³

In the EC, production of cereals and vegetable protein would go down by around 13 percent, while livestock output would expand (see Table 1).³⁴ Domestic use of cereals would increase by around 12 percent, while that of vegetable protein and cereal substitutes would be reduced, by 10 and 6 percent respectively. As a consequence, EC net exports of cereals would be reduced. Under the assumptions made in the study, the EC would even turn into a net importer of cereals (see Table 2).³⁵ Net imports of vegetable protein would, also, go down. However, the import reduction is moderated by the fact that domestic EC

³⁰ If rebalancing is to take place within the Uruguay Round negotiation, the compensation could be in the form of changes in other policies by the EC. The exact degree and form of compensation need not be calculated. The package of actions taken together in the agricultural negotiations (and in other parts of the Uruguay Round) will have to be acceptable to all parties.

³¹ Koester et al. (1988).

³² As far as oilseeds are concerned, the assumption was that the EC lowers its deficiency payments to producers while instituting the new tariff. Hence producer prices come down while user prices for oil and meal go up. Livestock and sugar prices were also assumed to fall in some of the scenarios. However, the results reported here assume no change in livestock and sugar policies.

³³ The results reported below are from the "global" model used in the "Disharmonies" study, see Chapter 17 in Koester et al. (1988). More detailed results, including results for more disaggregated commodity groups, are presented in other chapters of that study. Base quantities and prices used in the study are 1986 trend values.

³⁴ Milk and sugar output does not change because it was assumed that quotas remain in place.

³⁵ It should be remembered that these results come from a "comparative static" model, which abstracts from technical change and other dynamic elements. Absolute levels of trade in the future are not projected in the study.

Table 1: Domestic Effects of Rebalancing in the EC

Commodity	Supply Base Quantity Million Tonnes	Change %	Domestic Use Base Quantity Million Tonnes	Change %
Grains	138.00	-13.86	108.00	12.51
Veg. Protein	8.50	-13.17	28.00	-10.00
Cereal				
Substitutes	15.58	1.45	28.97	-5.73
Beef	7.80	3.85	6.60	-1.66
Pork & Poultry	14.90	5.82	14.30	4.22
Milk	103.00	0.00	82.00	0.05
Sugar	11.70	0.00	9.50	-0.11

Source: Koester et al. (1988), Chapter 17.

Table 2: World Market Effects of Rebalancing

Commodity	Base Million Tonnes	Change Million Tonnes	Net Exports		World Market Price Change %
			Change Million ECU		
Grains	30.00	-32.64	-3277.8		5.40
Veg. Protein	-19.50	1.68	346.9		-2.40
Cereal					
Substitutes	-13.39	1.89	371.3		-10.50
Beef	1.20	0.41	764.5		-1.70
Pork & Poultry	0.60	0.26	337.3		-0.10
Milk	20.00	-0.04	4.6		0.40
Sugar	2.20	0.01	2.0		-0.03

Source: Koester et al. (1988), Chapter 17.

production of vegetable protein would shrink in reaction to lower producer prices. Net imports of non-grain feeds would, also, be reduced. In value terms the change in the cereals trade balance would, though, be significantly higher than the changes for vegetable protein and cereal substitutes. Changes in EC trade flows would trigger adjustments in world market prices. World market prices for cereals would increase by around 5 percent, while those for vegetable protein and cereal substitutes would be depressed, by 2 and 10 percent respectively.

The effects of these changes on the US are also estimated in the study. The positive effects of market expansion for cereals would slightly more than outweigh the negative effects of market contraction for vegetable protein (i.e. soybean meal) and non-grain feeds (i.e. corn gluten) under the EC policy scenario reported here. The US agricultural trade balance would improve by \$230 million, and the US would gain from higher export prices by \$430 million.³⁶ Moreover, because of lower deficiency payments for cereals, there would be a budget saving of \$1,750 million in the US. On the other hand, because of lower soybeans prices, total value added in US agriculture would drop by \$1,290 million, and because of higher cereals prices, US consumer welfare would be reduced by \$300 million. On aggregate, US overall economic welfare would increase by \$160 million.

Of course the nature and extent of impacts on specific markets and for individual third countries depends decisively on the particular combination of policy changes combined in a rebalancing package. It will be a matter of negotiation to see whether a design of rebalancing can be agreed which offers the expected benefits to the EC and which at the same time is acceptable to the Community's trading partners.

³⁶ The results in the Koester study are given in ECU. In 1986, 1 ECU was roughly equivalent to 1 US \$.

5. Tariffication and Rebalancing as Elements in a Package

It is clear from the discussion so far that tariffication is of direct interest to the US and of some concern to the EC, while rebalancing is of considerable concern to the US and a central objective of the EC. A deal might therefore seem possible with elements of one being "traded" for elements of the other. Both however have to be taken in a context broader than bilateral negotiations. Though the EC and the US will clearly have to reach agreement, active support from the Cairns Group and Japan along with acquiescence from other countries will be necessary for success. The issue addressed here is whether both tariffication and rebalancing can be part of a successful GATT package for agriculture. This involves looking at the compatibility of T and R, their role in the context of AMS reductions and potential GATT rule changes, and the implications of each for other countries party to the negotiations.

a) Compatibility of T and R

Tariffication by itself, if applied to the EC cereal and other sectors, would probably have to be at a high initial level of protection to be acceptable to the EC.³⁷ Rebalancing, by contrast, might require a sharply lower level of cereal prices and a very modest levy on non-grain feeds and on oilseeds to be acceptable to the US. The two may be imperfectly compatible at present. One possible way out of this dilemma is to introduce these steps one at a time. Tariffication could be agreed to as a goal but not implemented until

³⁷ The EC currently imports 6 million tons of grains and exports over 30 million tons. Changes in import policy alone will not have a major effect on access into the EC cereal market. However, as explained above, tariffication could have the effect of limiting the level of export subsidies that could be paid on cereal exports.

domestic EC prices were closer to world price levels. This would also imply that internal EC prices would be close to world prices for those commodities which they would continue to export.

This suggests that the immediate objective should be to reduce EC cereal and oilseed support prices. This would reduce the imbalances among commodities. Lower EC cereal prices would increase grain consumption, and reductions in oilseed production subsidies would help to prevent further erosion in that market. Rebalancing would be allowed, subject to limits on tariff levels for cereals, oilseeds and products and non-grain feeds or if necessary with quantitative access guarantees. Converting all protection to tariffs would follow this period of support reduction.

For an initial period, the tariffs could be allowed some movement to grant a degree of internal price stability. This could be done, for instance, by basing variable levies on a moving average of world prices. Alternatively, an upper limit could be put on the variable levy (and, of course, on the level of export subsidy paid). This would reproduce the behavior of a fixed tariff at times of low world prices, but allow the domestic price to be stable as prices rise. After some experience with such quasi-fixed tariffs, a bound tariff could be introduced at an agreed level.

b) Linking T and R with Other Aspects of the Negotiations

Even if tariffication could be made consistent with rebalancing, the issue still arises of their compatibility with other aspects of negotiations. What impact would a T and R package have on the negotiation of AMS reductions or of changes in GATT rules?

Tariffication in itself would seem to be consistent with both AMS negotiations and rule changes. It involves policy changes which will, among other things, increase the transparency of border protection. As mentioned above, this will incidentally simplify the measurement of support. But tariffication applies only to non-tariff import measures, it does not obviate the need to monitor and negotiate down the levels of support. It would make simpler the re-writing of Article XI, by removing several import policies inadequately covered at present. But it does have the potential problem of "legitimizing" the protection inherent in the NTBs that the tariffs would replace.

Rebalancing, in a similar way, does not pose any direct threat the AMS negotiations so long as the AMS chosen allows for rebalancing within the context of support reductions, and there is not apparent conflict between rebalancing and rules changes. However, the concept of rebalancing may be enough to undermine the case for an AMS negotiation--as opposed to using an AMS purely for monitoring. If countries felt that rebalancing was being introduced by the back door as a by-product of negotiating on an AMS, then this could reduce its appeal--to countries other than the EC.

The combination of tariffication, rebalancing, and other approaches therefore needs to be carefully considered. Tariffication needs to be introduced gradually and be an integral part of the process of negotiating reductions in support. If tariffs are set too high, for the sake of getting agreement, then the process of support reduction will be delayed. Tariffication as a "principle" (a goal to be reached over a period of time) would enable rules on import barriers to be clarified. All access barriers could be bound in the GATT, and all access measures not specifically provided for in the GATT could be phased out. Tariffication would be one mechanism by which one reaches that state of affairs.

Rebalancing would be consistent with this development only if it were done in minimally trade-distorting ways. In so far as rebalancing was necessary to get agreement, some additional trade distortions might be tolerated. But if rebalancing resulted in significant new trade barriers to established patterns of imports, then it could effectively halt the process of liberalization envisaged in the Punta del Este declaration.

c) Implications for Other Countries of T and R

Both tariffication and rebalancing will have impacts on other countries besides the EC and the US. Tariffication as a principle of trade policy would have a major impact on the conduct of agricultural policy in other developed countries and change the nature of world markets. The greater impact of international market developments on domestic prices (the "recoupling" of domestic prices to world markets) is generally regarded as beneficial. It may, however, need to be accompanied by policy changes toward other methods of price and income stabilization. These could include price-responsive grain reserves (although history suggests this would be difficult to achieve), well designed safety-net programs and income insurance schemes. Developing countries should benefit from the greater market stability, so long as the increased fluctuation in domestic prices in developed countries does not induce another form of instability.

Whether tariffication would prove acceptable as a model for import policies of developing countries is less certain. Tariffs may not fit in with current marketing systems, and may not give the degree of control over imports and import prices that many countries presently enjoy. To try to force such policy changes at present may be undesirable, although one element of the special and differential treatment sought by developing

countries might involve an agreement not to institute new NTBs and to replace state control of imports with fixed tariffs over an extended time period.

Rebalancing in the EC is likely to have impacts on developing countries, in particular through the effect on the market for oils and for animal feed ingredients. Exporters of tropical oils have always been concerned about the possible loss of their EC markets arising from a fats-and-oils tax. The US position has helped those countries. If rebalancing were to involve access guarantees, then these exports would have to make their own case. The artificial EC market for cassava chips has been one of the most visible signs of the imbalance in the CAP. A full rebalancing would remove much if not all of that market. Again, the US pressure to keep open the EC market for citrus pulp and corn gluten feed presumably helps Thailand: if corn became more competitive again as an animal feed, these starchy feed ingredients would compete for a reduced market in Europe.

Rebalancing, if accepted as a principle in the negotiations, also would have implications for the policies of other countries. Japan, Canada, Korea, and many other countries have "unbalanced" protection. They may consider that this lack of balance is either desirable (because of strongly divergent needs for support) or inevitable (because of the power of particular farm groups). Rebalancing may be even more problematic in such cases than in the EC. In Japan, for instance, a rebalancing of support between rice and other commodities could be beneficial to the structure of agriculture, and it might be done so that the resulting degree of overall protection was lowered. But the degree of imbalance is so great that import access for a number of products could be significantly harmed if protection on some commodities was increased to offset the loss of support on rice.

Even in those cases where rebalancing is viewed as desirable, as in the EC, it may be difficult to match with trade liberalization. This is because rebalancing redistributes the "burden" around the exporting countries, and the sectors within those countries. As such, it is bound to hurt those who have come to regard their overseas markets as "rights", even if others will gain at their expense. Unlike selective importer liberalization, which holds few negative threats for exporters, rebalancing may pose a political dilemma for the exporter. The exporting country may have to find ways of compensating the losers in such situations even though there is a welfare gain for the country as a whole.

Hence, tariffication and rebalancing are issues that involves far more players than just the EC and the United States. Tariffication is likely to appeal to other exporters and have indirect beneficial effects on developing countries which import grains. Those that might benefit from rebalancing include countries that export grains but not oilseeds, such as Australia.³⁸ Opposing rebalancing will be non-grain oilseed and product exporters (Brazil, Malaysia, Indonesia) and cereal substitute exporters (Thailand). Caught in between are those countries that export both grains and oilseeds, such as Canada and Argentina. The support or opposition of these countries will depend on their perceptions of the costs and benefits of any particular tariffication and rebalancing package.

³⁸ Dairy product and beef exporters would benefit if rebalancing included the livestock sector.

Conclusions

Tariffication and rebalancing represent two elements in the Mid-Term Agreement in the Uruguay Round. Tariffication is offered by the US as a way to improve market access. Conversion of non-tariff import barriers to tariffs would have considerable advantage to the exporting countries. Such tariffs would be transparent, bound, and easily negotiable. Importer markets would be "recoupled" to world markets, and competition in those markets would be enhanced. Conversion of non-tariff measure to tariffs holds considerable advantage for the GATT, and would facilitate the revision of the agricultural rules. On the other hand, tariffication is unlikely to be welcomed by the importing countries. Non-tariff barriers are usually there for a purpose, to stabilize the domestic economy or to support a particular system of domestic marketing. To change to tariffs in such circumstances could clearly be difficult, and limit the possibility of agreement in the Uruguay Round.

Rebalancing levels of domestic protection, primarily in the EC, is an objective born of the difficulties in administering the CAP. Whereas the trade negotiations seek to reduce protection, rebalancing implies an increase in some access barriers. Such increases would in any case require GATT negotiations and some form of compensation offered for trade injury. Though there may be some merit in avoiding undue dispersion of levels of protection for closely related products, it would seem to be more consistent with the underlying thrust of the Uruguay Round to reduce such a dispersion by bringing down high levels of support.

Rebalancing, therefore, is best considered as a change in domestic policy on the part of the EC which requires agreement in the GATT. Tariffication by contrast is a

change in trade policy beneficial to the GATT but requiring domestic policy modifications. Over a period of time, both could be achieved. Tariffs could be phased in, by such means as putting upper limits on variable levies or on the selling prices of parastatal importers. Movement to an eventual tariff-only system might be initiated in the Uruguay Round along with other aspects of the negotiations, such as the reduction in support levels. Rebalancing could be allowed so long as it was accomplished in a way that minimizes trade disruptions. It would be treated not as a desirable principle but as a way of dealing with the reality of an unbalanced policy. The trade disruption could be minimized by means of access guarantees or by ensuring that the average level of protection for all closely related products decreases.

One danger of the emphasis on tariffication and rebalancing on the part of the US and the EC is that the multilateral trade talks on agriculture may become even more a bilateral negotiation. Not only would this downplay the interests of other exporting countries, but it may make an agreement harder to reach. The agenda for the Uruguay Round, strengthened by the political support given by the OECD Ministers and the Economic Summit meetings, represents a rare opportunity to improve the agricultural trading system. It would be unfortunate if this chance is lost as a result of the EC's dislike of tariffication and the distrust of the US for the notion of rebalancing protection. Though both elements could appear in a final package, they should be considered firmly in the context of the overall objective to achieve a more open system of agricultural trade and less disruptive domestic farm and food policies.

Appendix

Examples of the Implementation of Tariffication

The implementation of any tariffication proposal that involves conversion to tariff equivalents would require a number of decisions. In essence, there are two sets of decisions. The first set is most basic and contains those determinations that are necessary for the calculation of tariff equivalents. These decisions include the following: (1) the selection of price series (both a particular domestic price and the world reference price) to be used for calculating a price gap, and (2) the selection of a period to use for the tariff equivalent base year(s). As was discussed in the text, the decisions in some cases will not always be easy or straightforward.

After the price series and base period are selected, a new set of decisions must then be made. Given that the first decisions will establish a tariff equivalent, the following decisions are then required before implementation of a tariff reduction can be made: (1) the tariff cutting formula to be used, (2) whether an ad valorem or a specific tariff would be put into place, (3) the final goal of tariff reduction, i.e. whether tariff rates are to be reduced to zero or allowed to remain at some higher level, (4) the annual rate of reduction, (5) the time period over which tariffs are to be cut, and (6) the exceptions that might be granted. This last decision involves issues such as special and differential treatment for developing countries and consideration for the food security concerns of countries such as Japan.

With respect to tariff-cutting formulas, there are many possibilities, each of which has its own particular attributes. Any formula can be made to achieve a given tariff reduction in a given year, but the time paths that follow among the formulas will vary greatly. Three particular formulas were examined in detail and were used in the separate country specific examples discussed below. These formulas were the simple linear formula, the radial formula, and the Swiss formula.

In formal terms, the linear tariff cutting formula was given by the simple expression,

$$(1) \quad T = (1 - (r*t)) * (B), \text{ where}$$

T = the tariff rate in a given year,
r = the annual rate of reduction,
t = the step of the reduction, and
B = the base tariff equivalent.

As an example, in the third year of a 10 percent annual reduction, this formula becomes $(1 - .10*3) * B$, or 70 percent of the base tariff equivalent.

The second formula examined used was a successive linear reduction, sometimes referred

to as a radial formula,

$$(2) \quad T = (1-r)^t * B, \text{ where}$$

r = the annual rate of reduction,
 t = the step of the reduction, and
 B = the base tariff equivalent.

In this case, a 10 percent annual reduction would result in the following:

$$T = .90^3 * B, \text{ or 73 percent of the base tariff equivalent.}$$

Simply put, the radial formula reduces tariffs more slowly than does a linear formula (of the same annual rate of reduction), because the annual reduction is applied to the previous year's tariff instead of applying it to the tariff base. The difference between the two formulas is shown in figure 1.

Finally, because of its use in cutting tariffs on industrial goods in the Tokyo Round and its current application by New Zealand in ongoing unilateral tariff cuts, the Swiss formula was examined in detail. The Swiss formula is given by equation (3),

$$(3) \quad T_{t+1} = (T_t * c)/(T_t + c), \text{ where}$$

T = the tariff rate in a given year, and
 c = a coefficient that is arbitrarily set.

The base tariff equivalent here can be treated as T_0 . The importance of the c coefficient is revealed by figure 2, which shows that the higher the value of c , the smoother would be the decline in tariff rates. Another crucial difference (one not shown here) between this and the previous formulas is that the value of the tariff reduction in a given year also depends crucially on the existing tariff level. For a given value of c , the higher the beginning tariff rate, the greater is the drop--even in percentage terms--in the tariff rates.

It is clear to even a casual observer of the distortions in world agricultural trade that the impact of tariffication would vary greatly across countries and commodities. Three country/commodity cases are chosen for discussion here, mainly because of the particular differences that they offer in both levels and in substantive details. They are the cases of Japanese rice, EC wheat, and Canadian poultry. They are chosen so as to give an example of an instance where trade barriers and price distortions are at the maximum, one where trade barriers are very important, and one where the degree of price distortion is rather minimal. Tariff equivalents, using the price gap methodology were calculated for these three cases. Tariff equivalent rates vary greatly (table 1) across the three cases, and in the case of EC wheat vary significantly across the years. The case of Canadian poultry also exhibits the problem--often noted as to the developing world--of a negative price gap for 1986.

Table 1--Tariff equivalents in selected years

	1986	1987	1988	Avg. 86-88
	(Percent ad valorem equivalent)			
Japanese Rice	492	601	485	526
EC Wheat	287	286	103	225
Canadian Poultry	-7	14	10	10

In each of the examples shown, a 10 year period of tariff reductions was specified. Tariffs were reduced beginning in 1992 from the average tariff equivalent level that existed in 1986-88. The three separate tariff cutting formulas were used to cut the TE base over the 10 year period. The linear and the radial formulae both were used to reduce tariff rates at a 10 percent annual rate of reduction; the Swiss formula was used with a c coefficient equal to 170. Of the three formulas, only the first would achieve a total elimination of tariffs at the end of the 10 year tariff reduction period.

The greatest adjustment of any of the cases considered here would be required in the case of Japanese rice. The Japanese tariff equivalent for the 1986-88 period of 526 percent would result in an initial tariff rate at this level, which would then be reduced over the next ten years, according to the different tariff cutting formulas (figure 3). Reduction of the tariff rate would itself force a reduction of the domestic price for rice in Japan. As imported rice at lower prices became available, domestically produced Japanese rice would become increasingly uncompetitive.

One implication of tariffication in this case would probably be to encourage some form of deficiency payment (or two-price) program, with producer prices being maintained above market prices. As an interim step towards complete trade liberalization this can be viewed as a positive outcome. However, if open-ended deficiency payments replaced the current implicit tax on consumers, then the tariff equivalent of the Japanese rice policy could rise to levels above the actual tariff rate. This would be clearly inconsistent with the objectives of the Uruguay Round to reduce protection and improve market access. While the level of domestic price supports, and hence government expenditures, under these programs might be constrained by taxpayer costs, they could also be capped by limiting the quantity eligible for support or by negotiating them downward using an AMS based approach.

If the domestic producer price for rice were cut so that the tariff equivalent fell at the same rate as the reductions in actual tariff rate, and if the world rice price did not increase as a result of trade liberalization, then the resulting domestic prices would be as shown in figure 4. Price change of this magnitude would require major adjustments within the Japanese rice industry.

Of all the specific cases considered here, it is not surprising that the EC wheat case has the greatest level of uncertainty associated with it, primarily because the EC is a large net

exporter of wheat. The 2-3 mmt of wheat currently imported by the EC consists of high quality specialty wheat unavailable in the EC. Consequently, the price gap used in calculation of tariff equivalents is somewhat artificial: it is the price gap equal to the threshold price minus a constructed synthetic world reference price. Other price gaps were considered, but this one was chosen on the assumption that the EC could conceivably accept conversion of the threshold price into a bound ad valorem tariff and that this tariff would be reduced over time (figure 5). With an effective difference of more than 80 ECU/mt between threshold and intervention prices small changes in the tariff rate would likely have only minor effects on imports or domestic farm prices. Large changes in the tariff rate, as illustrated in figure 6, would require the establishment of new CAP mechanisms--probably including some form of decoupled income payments--for EC acceptance of this proposal.

The Canadian poultry case stands in sharp contrast to the previous two cases. The tariff equivalent is very low; in 1986, in fact, the domestic price was actually lower than the world reference price in 1986. With the 1986-88 average TE base equal to 5.75 percent, there would be little difference among tariff reductions given by the separate formulas (figure 7). In sum, Canadian prices are not currently highly distorted and would face only minor adjustment (figure 8). However, it is worth noting that this particular case is one where liberalization may not result in expansion of U.S. exports. The Canadian global quota on poultry imports has provided the protection necessary to allow inefficient producers to remain in the industry. Abolition of the Canadian global quota would probably serve as an impetus to rationalization of the Canadian poultry industry, with the possibility of even smaller U.S. exports of poultry products to Canada.

The three examples clearly demonstrate the major differences that stem from a particular choice of a tariff cutting formula would have on the time path of tariff reduction and the likely paths that domestic prices might follow. The selection of a particular tariff cutting formula is especially important when initial tariff equivalents are high. In fact, there is wide variation in the time paths that both tariff rates and implied domestic prices would follow depending on the formula used to reduce tariffs. The radial formula is shown as being one that would have a gradual effect on reducing both tariff equivalents and the resulting domestic producer prices in these cases. Particularly in the EC and the Japanese cases, they would result in the most politically palatable solutions should direct tariffication be carried out.

Even a radial formula, however, is not likely to remove the major opposition in these countries to direct tariffication. Accordingly, the recent US "comprehensive" proposal allows for the use of a tariff-quota (similar to that used in the recent U.S. Japanese Beef and Citrus Agreement) linked to safeguards for the importer. Similarly, to add market stability a mixed tariff-variable levy (in the case of the EC) may be necessary in the interim to win acceptance of the U.S. tariffication proposal by the other nations in the Uruguay Round.

Fig.1--Linear and Radial Formula Tariff Reductions

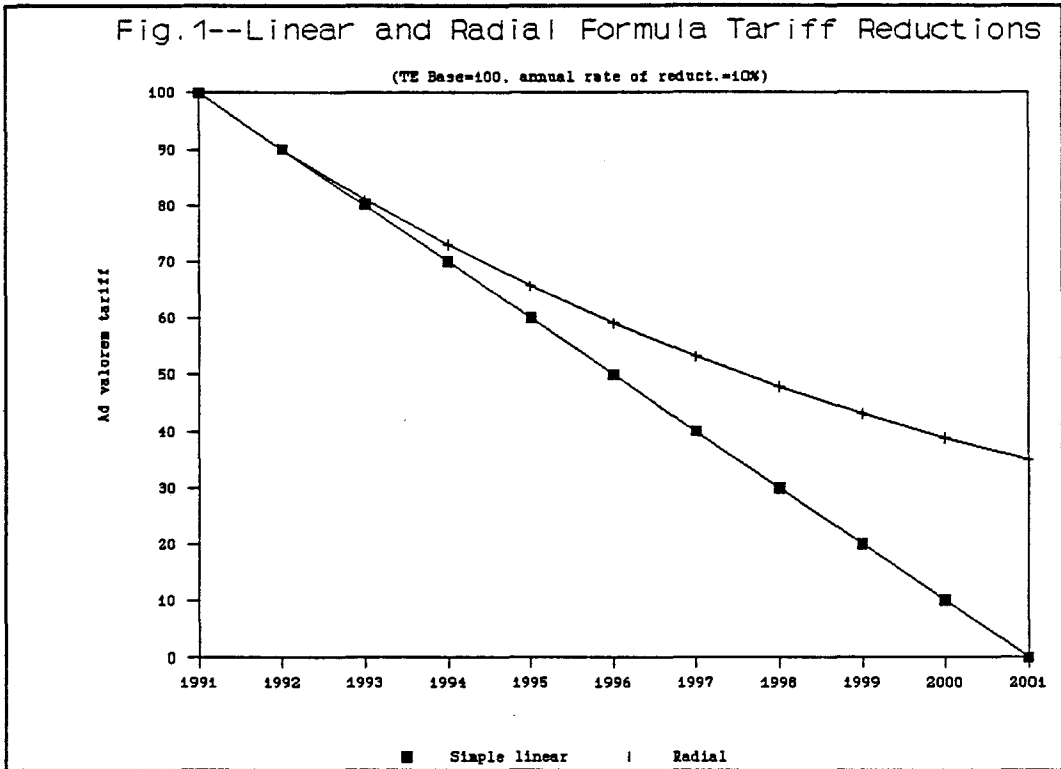


Fig.2--Swiss Formula Tariff Reductions

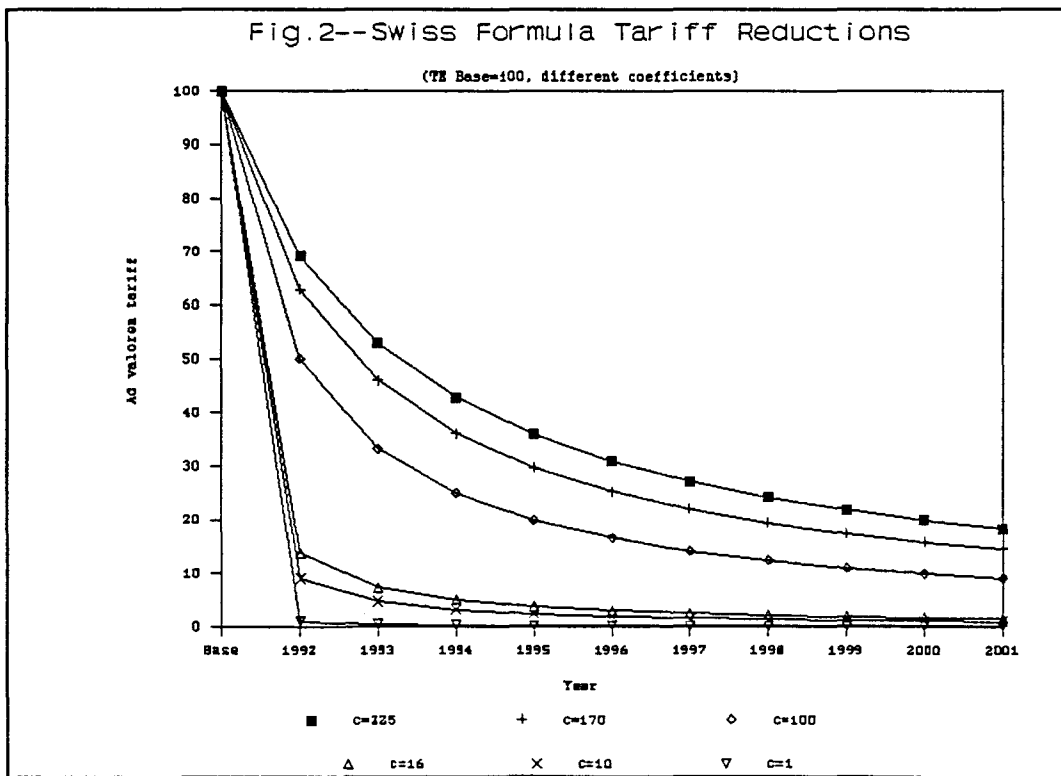


Fig.3--Japanese Rice Tariff Equivalents Under Different Reduction Formulas

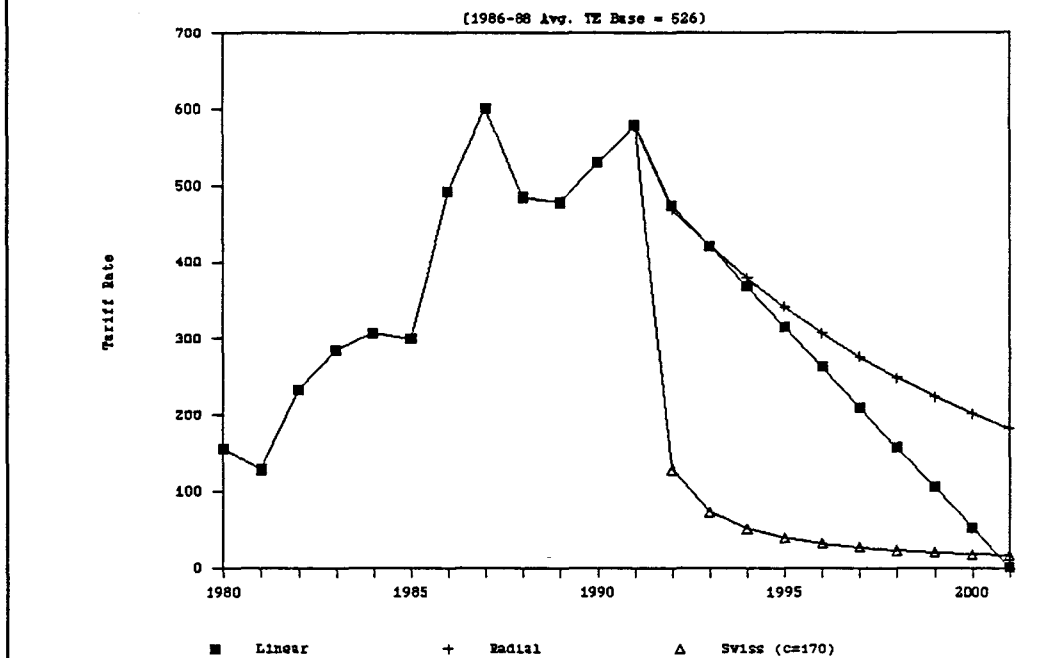


Fig.4--Effect of Tariff Reduction Formulas on Japanese Rice Prices

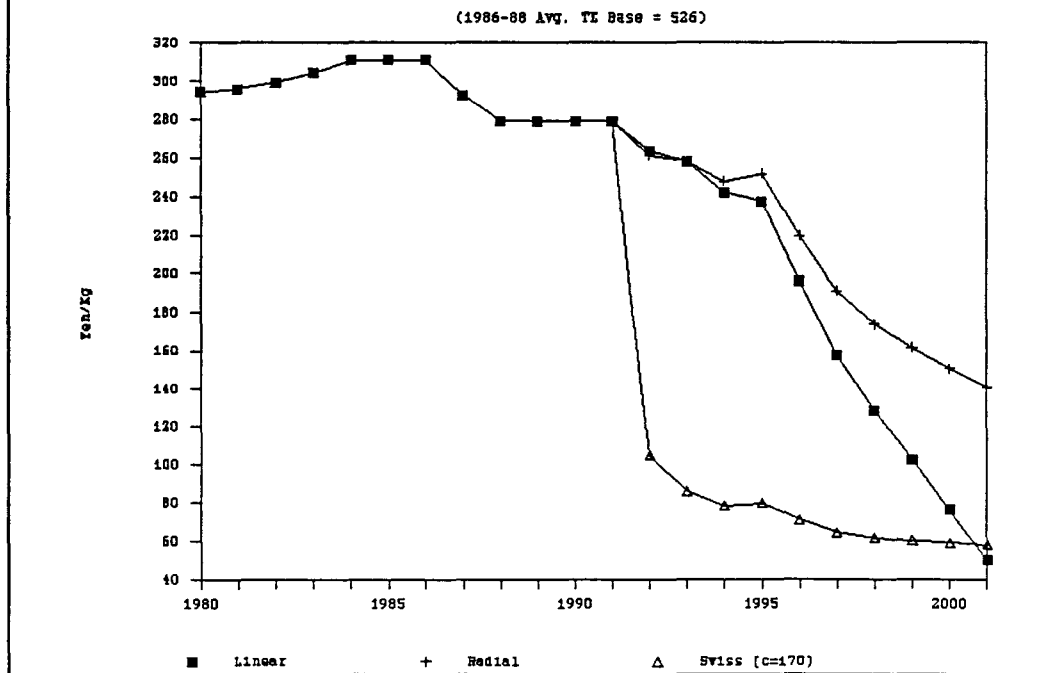


Fig.5--EC Wheat Tariff Equivalents Under Different Reduction Formulas

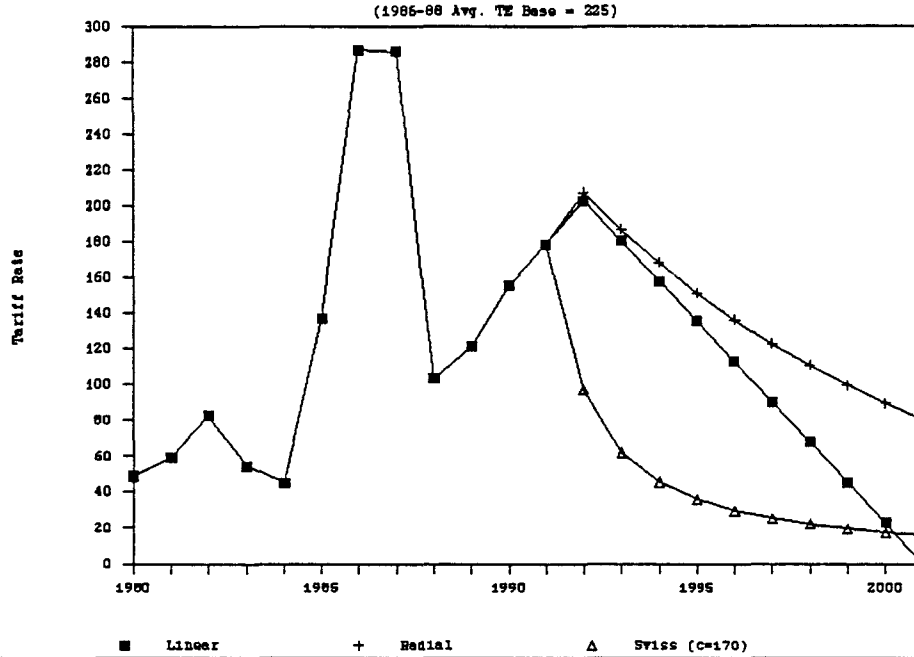


Fig.6--Effect of Tariff Reduction Formulas on EC Wheat Prices

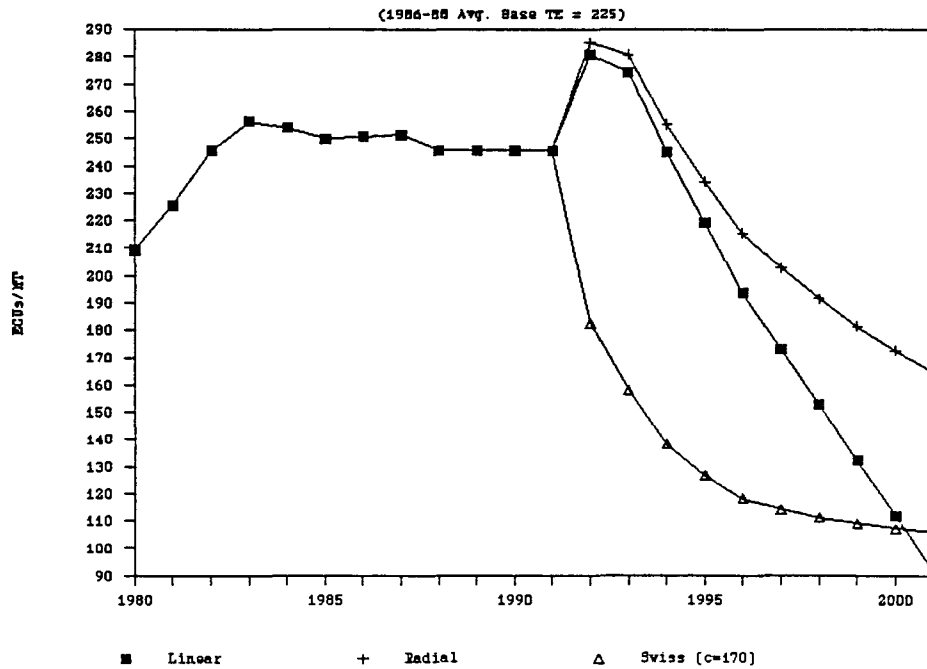


Fig. 7--Canadian Poultry Tariff Equivalents Under Different Reduction Formulas

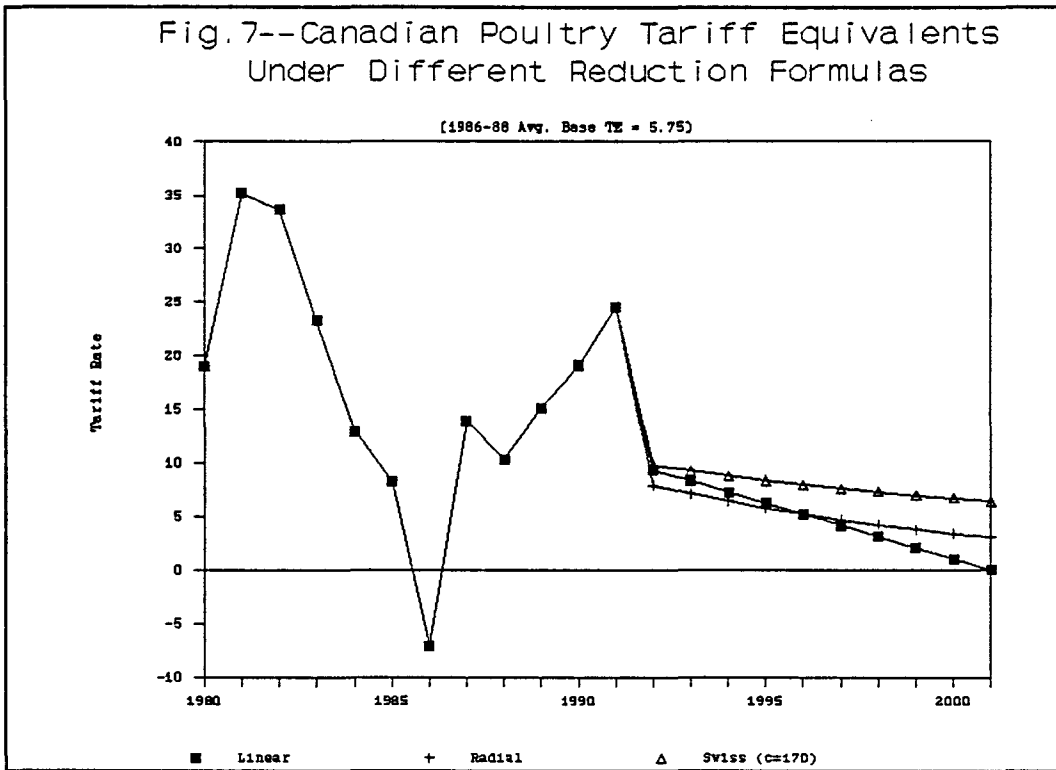


Fig. 8--Effect of Tariff Reduction Formulas on Canadian Poultry Prices

