

NEW ZEALAND CASE STUDY

OVERVIEW REPORT

Introduction

At its 68th Session (October 1991), the Committee for Fisheries agreed that the work of the Expert Group should continue on the lines suggested by the Group, including a continuation of the New Zealand case study via the development of an integrated model of trade in selected commodities and fishing services in the New Zealand EEZ.

The purpose of this overview report is to highlight the important conceptual and practical issues that arose from the development of an integrated model and to place the modelling exercise, in the context of the general role of the OECD in supporting GATT negotiations. The report concludes with a summary and suggestions for further work.

The model itself is described in a separate paper.

Role of the OECD

Decisions that governments take domestically may affect their neighbours and trading partners. The OECD provides a forum for governments to judge the effects of those decisions on the open world economy on which they depend for their growth. The OECD has a particularly important role in facilitating the liberalisation of international trade; several of its committees concentrate on this area, and it forms a key component of the work on other committees.

Relationship to GATT

In addressing international trade issues, the OECD has paid particular attention to supporting GATT negotiations, which are the primary focus for multilateral trade liberalisation initiatives. The OECD work on PSEs, which undergirded the recent GATT discussions on agriculture, is a notable example of such work.

Besides providing "tools" for GATT negotiations, such as the PSE methodology, which provides a means to comprehensively bind assistance measures, the OECD has also facilitated the negotiation process itself. Examination of the likely effects of liberalisation, the potential gains that might be forthcoming, and ways to address particular obstacles to liberalisation, all contribute to the likely success of negotiations. For example, in terms of breaking deadlocks in negotiations, economic analysis might

highlight alternative interventions to assist domestic sectors, which were less distortionary, or more transparent, but which still met the primary needs of domestic governments.

Components of Phase I

The two phases of work described above -- first, the creation of tools for negotiation, and second, the analysis of the effects of assistance and the facilitation of negotiations -- provide a useful analytic map for organising work on economic assistance. There are a number of substantial analytical tasks in both phases. In the first phase:

- Categories of economic assistance must be decided upon. In total, these need to be comprehensive to avoid assistance being shifted to areas outside the surveillance of any agreements. To that extent the categories need to be generally defined. But, they must also be specific enough to facilitate the type of trade-offs that might arise, in view of the different interests and positions of the parties, and to recognise particular issues that arise with respect to certain types of assistance.
 - In agricultural negotiations, three categories of assistance were distinguished: internal support measures, export subsidies, and market access barriers. These were sub-divided into further categories, e.g. the so-called "less distorting policies" within the internal support category. It should be noted that the main criterion for definition of categories is a pragmatic one -- categories should be chosen to facilitate, rather than impede, mutually beneficial negotiation.
- The meaning of free-trade must be defined operationally for each category is the ultimate goal of liberalisation. This ensures that both the categories, and measurement methodologies are meaningful in terms of the goal of more liberal international trade.
- A measurement system must be decided. In order for binding agreements to be reached, each category of assistance must be underpinned by a measurement system so that negotiated agreements can be bound and monitored in terms of something quantifiable. In agriculture, the PSE methodology served this role for a number of assistance categories.

The tasks outlined above provide the necessary ground-work and operational mechanisms for later analysis, and negotiation. Importantly, negotiations can take place almost immediately Phase I work is completed. To some extent, the political processes of negotiation determine the relative importance of various measures, and what trade-offs can be made between them, even in the absence of further economic analysis.

Components of Phase II

In the second phase, the analytic tasks concern finding mutually advantageous liberalisation proposals, achieving transparency in the process, and removing road-blocks to negotiations. Although, these are not simply economic problems, economic analysis can facilitate the search for solutions. For example, it can predict how various initiatives might affect adjustments in resource allocation, incomes and economic efficiency. This might lead to the development of measures, such as that of the effective rate of assistance (ERA), to compare various proposals on a consistent basis. Analysis can identify impediments to negotiations such as a lack of transparency, or the existence of particularly affected sector

groups, who might oppose reform unless their concerns were addressed by some other means. The analysis of how the introduction of ITQs can build domestic support for greater access by foreign vessels to EEZs is an example of a Phase II analytical task.

New Zealand case study -- Conceptual issues

Having outlined the role of OECD work with respect to GATT, and the two broad analytical phases which might be distinguished, we turn to the New Zealand case study proper. The New Zealand case study exhibits both the analytical phases identified. In order to model real-world policy settings, we need to go through the complete process of identifying relevant assistance policies, categorising and measuring them, and defining the meaning of free-trade for each. In a sense, this is a small-scale version of the Phase I task of providing "tools" for negotiation. Once these tasks are complete, the model is able to analyse the effects of different policy settings, and to calculate unifying measures of assistance, such as the ERA measure. These correspond to Phase II analytical tasks.

Identifying relevant assistance measures

On the face of it, relevant assistance measures could be determined by whether they affect trade flows, in either products or in services. However, a focus on trade can obscure the underlying mechanisms, and interlinkages. For example, it could make an artificial distinction between trade in products and services, when the two are precisely correlated in some cases. Similarly, as suggested in the initial paper on the New Zealand case study, relevant assistance measures could be determined by the effect on who harvests and processes fish. But, here again, certain analytical points may be obscured by this focus, e.g. interlinkages between harvesting and processing activities.

To achieve the most fundamental analysis, it is proposed that the relevance of an assistance measure be determined by its effect on the relative (marginal) profitability of different economic activities. Trade-flows and patterns of production then become merely one effect of the relative size of competing economic activities. Moreover, if assistance measures can be shown to affect a common economic activity, or a common set of activities, they can be quantified and compared on a common basis.

The examination of underlying economic activities raises a number of important conceptual issues. In the fishing sector, the two most important economic activities are the harvesting of fish and the processing of fish. Sometimes these two activities are tightly integrated, as in the case where fish are processed on board a fishing vessel. Other times they are separated, as in the case where the unprocessed fish is landed, and the price is set by the world market for unprocessed fish.

The general question is whether the intermediate product, (the unprocessed fish), is economically tradable. If it is not, then the processing and harvesting activities should be considered as one activity. If it is, then any economic assistance to harvesting activities will have no effect on the profitability of downstream processing activities, and so the activities should be considered separately.

An advantage of dealing with activities is that they can be defined very flexibly to meet the requirements of the analysis. For the New Zealand case study, and probably in general, it was useful to sub-divide activities by country of origin and by the markets for the final product. For example, the economic activity of harvesting fish with a domestic vessel, and landing the fish in a foreign market was treated as an analytically distinct activity from harvesting with a foreign vessel and landing the fish in a domestic market. This many-fold sub-division of economic activity allowed changes in assistance

measures to be reflected in the expansion of particular activities, compared to others. Later, the activities can be aggregated up, in order to present the results in particular ways.

A final analytical point is that it is marginal, not average, assistance that is important. We must always ask whether the assistance measure affects the profitability of one unit more or less of the activity. A useful test on this question is to revert to the subsidiary criteria of whether the assistance affects trade flows or patterns of production, as these are both indicators of changes in marginal profitability.

Types of assistance policies

The New Zealand case study examined the effects of economic assistance on harvesting activities, and integrated harvesting and processing activities only. Six types of assistance were identified as affecting harvesting profitability. These categories are essentially pragmatic because, at the conceptual level, the economic effect of all the measures is similar. They are useful simply to model different real world policy settings.

- Assistance to the final product of the activity, i.e. landed fish. For example, market access barriers to products can raise the final product price for some harvesting activities above the world reference price. This assists the profitability of the associated harvesting activity by increasing its returns.
- Assistance to the intermediate inputs used in the activity, e.g. fuel. Governments may impose fees or costs on various inputs used by some harvesters, while subsidising the inputs of others. Such assistance measures raise or lower the profitability of harvesting activities.
- Direct assistance to the value-adding factors of production, e.g. subsidising the labour used, or the capital employed. These can take the form of subsidised loans, or subsidies of remuneration of labour.
- Different resource rentals for different harvesters. A resource rental is a revenue measure which applies generally to all fishing operations, domestic or otherwise.
- Payments for access to fishing grounds. Access fees differ from resource rentals because they apply only to foreign vessels which obtain access under the Law of the Sea Convention. They have a natural relationship to quantitative restrictions on access, described below, in the same way that tariffs and import quotas are related.
- Quantitative restrictions to access to fishing grounds. Restrictions on access available to foreign vessels, such as a specified tonnage of fish allocated, has the same effect on resource allocation as a sufficiently high access fee. Looked at another way, a quantitative restriction places an opportunity cost on certain harvesting activities, and, in an economic sense, reduces their potential profitability.

The free-trade benchmark

For each type of assistance, we need to establish the meaning of the free-trade benchmark. This question is not trivial, particularly with respect to policies to do with access of vessels to fish resources.

General guidelines on what constitutes free-trade might differ depending on whether there was a direct interface with international activities. For policies which interface with international activities, a free-trade policy setting is one which does not make distinctions based on the origin of the economic activity. In the case of domestic policies, a free-trade setting is one which does not treat economic activities differently, except on the basis on an across-the-board criteria. These general guidelines are used below to describe what the free-trade position is for any given policy instrument.

Free-trade for fisheries products

With respect to barriers for fisheries products, tariffs and quotas by nature only apply to fish caught by some harvesters. Accordingly, the free-trade position would be for zero tariffs, and no quantitative restrictions at all.

Free-trade in domestic support

There are many ways governments can support economic activities. They may provide access to finance at below market rates, remuneration benefits that are not available to other activities, and taxation advantages through say special depreciation rates. These measures may not be considered inconsistent with free-trade if they apply generally across all economic activities, not just to harvesting activities. If fishing activities are treated in different criteria, then the differential only should be considered assistance.

Free-trade in fisheries access

The case of access to resources requires a more detailed examination. Here, both mechanisms to allocate access, and the conditions of access, are important.

Management under free-trade would mean that vessels could not be excluded from a fishing zone simply on the basis of their nationality. Nor could they be charged a higher fee for access than domestic boats, at the margin. A fishery would have to be open to everyone on the same basis, and the fishing season be foreshortened, if necessary, to keep within the TAC.

If a fee for access was charged, this would have to apply to all vessels, or to all vessels at the margin. As an example of free-trade at the margin only, the bulk of the TAC might be allocated to domestic vessels for no fee, but a certain amount tendered out to all harvesters. If domestic and foreign harvesters each achieved a share in the tender round, this would in fact constitute a free-trade position. At the margin where resource decisions were made, foreign and domestic vessels would be treated equally.

Another case of free-trade at the margin is the New Zealand situation. In New Zealand, as elsewhere, there is very limited access for foreign vessels through government to government agreements. However, at the margin, access is determined by charter arrangements, and in New Zealand there are relatively few discriminations between domestic and foreign vessels. Accordingly, at the margin, free-trade might be said to exist.

Management measures that were based on other factors, such as the size of vessels, would be consistent with a free-trade position. This is because they would apply to all harvesting activities, whatever their country of origin. These types of restriction would still need to be justified in terms of fisheries management, to prevent them being designed to imitate a country of origin restriction.

Measurement issues

In order to be able to model changes in policy settings, a system of measurement is required for each category of assistance. Such a measure does not need to have any analytical meaning in itself. It only needs to be unambiguously correlated with deviations from the free-trade position. In these terms, the PSE methodology would be entirely appropriate for certain categories of assistance. In principle, every category of assistance could have a separate measurement system and means of quantification. Consistency is only required within categories.

With respect to restrictions to access to EEZ, an issue of transparency arises. A quantitative restriction, e.g. a limited allowable tonnage available to foreign vessels, needs to be converted to an equivalent tariff basis in order to highlight the true level of assistance. Assistance policies themselves could be modified to allow a greater degree of transparency. For example, the tendering of some portion of access might reveal the opportunity cost of the quantitative restriction without recourse to reference price type of methodologies.

The same issue arises with respect to quantitative barriers to product markets. Again, an intermediate step would be to aim for greater transparency of this measure.

Analysis phase

Having established the basic parameters of the model, it is possible to model the effects of different regimes of economic assistance.

As a useful summary statistic of the effects of economic assistance, the model computes an ERA for each economic activity. The use of the ERA measure highlights that positive assistance to one activity is negative assistance to all other activities, and that it is relative rather than absolute assistance which is important. This is particularly evident in fishing where the TAC determines the total level of production. Assistance cannot affect the size of the fishing industry relative to other industries only the relative shares of various harvesting activities.

The analysis to date indicates that the benefits and costs of a particular assistance measure may be distributed in a complex way. For example, some of the benefits of assistance to harvesting activities may be transferred to countries which are net importers of harvesting services. For example, by importing Japanese harvesting services for squid, New Zealand may benefit to some degree from any protection of the Japanese squid market for those harvesters. This would occur through achieving a lower charter price for those vessels than otherwise. The net effects can only be determined empirically.

The full impact of assistance measures would need to take account of changes in supply and demand in product markets as a result of removing assistance. At the moment, the model assumes that product prices in each market are given, and do not vary significantly as a result of liberalisation. This may not be a defensible assumption if the model were to be extended in order to model multilateral liberalisation initiatives.

Conclusions and suggestions for further work

Interlinkages between types of economic assistance come about through their impact on common sets of economic activities.

Because they both affect the relative profitability of harvesting operations, both resource access and market access policies are linked at an economic level. However, this does not mean they need to be linked in negotiations, nor indeed that economically unrelated liberalisation proposals could not be part of a single negotiating package.

There is a discreet set of analytical tasks which would assist GATT negotiations and the development of further modelling. They correspond to creating the "tools' for negotiation, and the basis for representing policy settings in subsequent analysis:

- the categorisation of assistance measures in a way that is comprehensive and meaningful in terms of negotiations;
- the conceptual definition of the free-trade benchmark for each category of assistance;
- a measurement methodology for each category of assistance decided upon.

The PSE methodology is probably appropriate for quantifying a number of categories of assistance, for the purposes of negotiation and model development. Theoretical soundness is not as important as being able to tie the measure closely to actual policy settings.

However, for the purposes of the analysis of the effects of assistance, measures such as the ERA are more appropriate because they relate more closely to the effects of assistance on underlying economic activities.

A general issue of transparency arises with respect to quantitative barriers to markets and to access to resources. It would be useful to explore ways in which transparency might be improved.

An important component of analysis is to explore ways to remove obstacles to mutually beneficial negotiations. As discussed in a previous paper in the New Zealand case study, the introduction of Individual Transferable Quotas might play an important role in easing the policy environment for liberalisation.