



FAO TRADE POLICY TECHNICAL NOTES

on issues related to the WTO negotiations on agriculture

No. 4. Export competition: selected issues and the empirical evidence

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1 Introduction

There is broad agreement that interventions to support exports of agricultural commodities have the potential to distort competition on world commodity markets. In particular, the use of export subsidies can displace not only third country exporters, but also domestic producers in importing countries, with particularly detrimental effects to the development prospects of developing countries. In principle, it is also possible that other government interventions, e.g. through the use of export credits, the activities of state trading enterprises or the use of food aid to dispose of surplus production, could have similar effects to direct export subsidies in distorting markets and trade flows.

The 1 August 2004 WTO Framework Agreement (WTO, 2004) recognizes this concern and has called for the development of modalities that will ensure the parallel elimination of all forms of export subsidies, and disciplines on all export measures with equivalent effect. While there is little disagreement on proceeding with negotiations along these lines, determining “equivalent effects” is not a simple task. There is a real danger that some policy instruments which have little effect on world market conditions in comparison with their potential benefits, will be disciplined too stringently if negotiators, faced with the difficulty of operationalizing the concept of equivalence, adopt a precautionary approach in constructing “catch-all” modalities.

This technical note¹ first reviews the three broad concepts of export competition as set out in the Framework Agreement. It then explains how the Framework Agreement seeks to categorize instruments or activities falling within these components into those set for elimination, those that require further disciplining and those where further disciplines are not thought to be warranted. The main body of the note then investigates existing evidence on the potential impact of the range of instruments and activities believed to support the export of agricultural activities. On the basis of this 4nce the merits of attempting to operationalize the concept of equivalence are discussed. Finally, the risks associated with over or inappropriately disciplining some measures are examined.

2 What is export competition?

Three broad components of export competition can be categorized: (a) policies in direct support of an exported commodity, such as export subsidies and officially supported export credits, (b) interventions in support of state trading enterprises, and (c) food aid, notably that component of food aid used to facilitate the disposal of a country’s surplus production. The incidence and impact of these components is discussed in detail in Section 4 of this note.

¹ This technical note has benefited from discussions at an informal expert consultation on export competition held at FAO in November 2004, which focused on analytical and empirical work on issues regarding export competition of relevance to the ongoing WTO negotiations.

The inclusion of a greater range of activities and policies than that considered in the export competition pillar of the Uruguay Round stems from a fear that mechanisms other than export subsidies will be used to circumvent the need to reduce support to exports as a way of disposing of surplus production.

However, it should be noted that other policies and interventions falling outside this categorization can also act in a similar way, for example, the use of price premiums whereby domestic prices are maintained at a higher level than those of the product sold in countries to which it is exported, or loan deficiency payments which allow importers to buy the product for less. Although this broader issue has potential implications for the coverage of the modalities eventually agreed to, this note confines itself to the three components of export competition defined above.²

3 What does the WTO Framework Agreement say?

The August 2004 WTO Framework Agreement provides some guidance as to which types of policies and activities will be affected, by committing to agree to an end point (the date of this end point is still to be negotiated) by which certain policies will be eliminated, others will be disciplined, and by implication, still others will be left unaffected.

Detailed modalities will be established to ensure the parallel elimination of all forms of export subsidies, to include scheduled export subsidies; export credits, guarantees, and insurance programmes with repayment periods exceeding 180 days; trade distorting activities of State Trading Enterprises (STEs) (these activities are not specified), and food aid not in conformity with disciplines to be agreed.

Further disciplines will be imposed on the use of all export measures with equivalent effect. According to the Framework Agreement, these would include disciplines on the terms and conditions (for example, interest rates) of export credits, guarantees, and insurance programmes with repayment periods of less than 180 days; other less trade distorting activities of STEs; and disciplines on food aid to prevent commercial displacement.³

² The division between export measures and domestic support measures is not always clear. Some domestic policies are now being defined as export competition policies whereas in the Uruguay Round Agreement on Agriculture (UR AoA) they were in the domestic support pillar.

³ In addition to eliminating and/or disciplining some forms of food aid, the agreement also notes that (i) the role of international organizations and (ii) the question of providing food aid fully in grant form, will be

The framework text also makes reference to Special and Differential Treatment (SDT) for developing countries, namely, longer implementation periods for phasing out of all forms of export subsidies, allowing support under Article 9.4 to remain for a reasonable period of time following the elimination of export subsidies, and ensuring that disciplines make provision in favour of least developed countries (LDCs) and net food-importing developing countries (NFIDCs). In addition, developing country STEs will be given special consideration for maintaining monopoly status in relation to food security. While detailed discussion of SDT with respect to export competition is covered in the FAO Trade Policy Technical Note on that subject, it is worth noting here that the focus of SDT on LDC's and NFIDC's (as opposed to on all developing countries) is important in reference to the standpoint of the United States in the negotiations. The United States had wanted all developing countries to be granted SDT from the export competition pillar of the agreement as a way of protecting its current export credit expenditure pattern from elimination or further disciplines. This is in contrast to its stance on the other pillars of the negotiations, market access in particular, where it has pressed for differentiation of developing countries in respect of SDT.

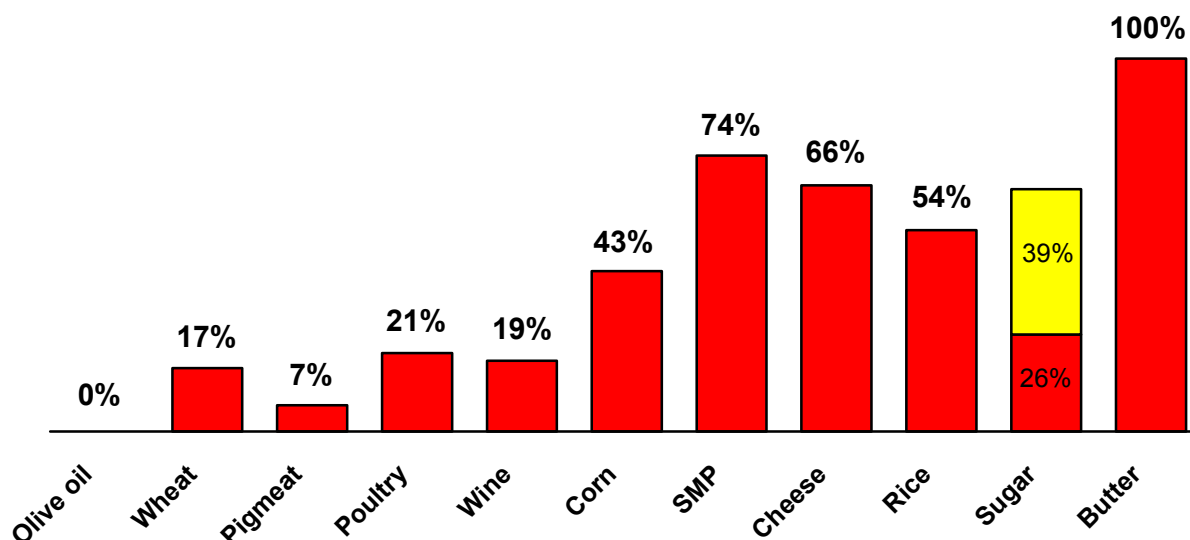
- *What is equivalence?*

The approach adopted in the export competition pillar hinges on the categorization of policies and actions into groups which have broadly equivalent effects, so as to allow their parallel elimination or disciplining. But how can equivalence be defined and what are the relative merits of approaches to its measurement?

Definitions of equivalence tend to be discussed in terms of the effect of a given policy or activity on transactions and trade flows, or in terms of the gross expenditure on that policy or activity. Alternative approaches to analysis of the market effect include (i) the extent of cost reduction (i.e. the reduction in cost to a foreign buyer relative to the domestic buyer of the commodity), and related to this, (ii) the budgetary transfer involved in disposing of the commodity. OECD (2000b) has attempted to determine the subsidy equivalence of export credits by country (see Section 4b),

addressed in the negotiations. These aspects are not covered in this technical note as they are subject of a separate technical note on Food Aid. As that note suggests, whilst issue (i) is contentious, issue (ii) is in fact likely to be largely irrelevant.

Figure 1: Subsidized exports as a proportion of total exports by selected products in the EU (1995 – 2001)



Source: Jales (2004)

McCorrison and MacLaren (2004) have developed a theoretical framework for considering the subsidy equivalence of STEs, (see section 4c). Analysis of the impact of food aid focuses on the concept of additionality in consumption as a mechanism for determining likely implications in terms of the displacement of commercial imports and market distortions (see section 4d). A key issue in respect of the relative merits of the alternative approaches is how to compare across the alternatives, for example how can a budgetary expenditure be compared or translated to a market impact (via, for example, its effect in terms of cost reduction). Such considerations are used to inform the discussion of impacts in the following section.

4 What is the evidence on the effects of export competition?

For each of the components of export competition, evidence on the significance of the incidence and impacts is reviewed in turn.

(a) Export subsidies

Export subsidies have been singled out in the WTO negotiations for elimination, suggesting that the net benefits of their use are agreed to be singularly negative (and/or that there are relatively easily adopted policy alternatives available to countries agreeing to reductions in export subsidies). But how widespread is their use and is

the impact of their reduction really going to be as significant as some would argue?

• Incidence

Of the twenty-one WTO members that have the right to use export subsidies, nine currently use them⁴: European Union (including Cyprus, the Czech Republic, Hungary, Poland and Slovakia); Switzerland; Norway; the United States; Turkey; Israel; Venezuela; Romania; and Mexico. In addition, eight countries have used them in the past: South Africa; Colombia; Canada; Iceland; Australia; New Zealand; Costa Rica; Panama and four countries have not used them as yet: Brazil; Bulgaria; Indonesia and Uruguay.

Of the nine countries that have notified the use of export subsidies⁵, the EU is dominant, accounting for 90 percent of the value of export subsidies notified to the WTO during the period 1995-2001. Switzerland followed with 5.3 percent of the total, with the United States and Norway each accounting for 1.4 percent.

The use of export subsidies has declined significantly over the past decade from some \$US

⁴ Notifications generally lag by a few years. The most recent notification available for some of the listed countries is 1998.

⁵ Notified data only record scheduled export subsidies and therefore exclude subsidies caused by, for example, the Canadian Dairy regime or the United States FSC.

7.5 billion in 1995 to less than \$US 3 billion in 2001. The reductions observed in the EU have occurred not just as a reflection of meeting commitments under the UR AoA, given that the EU has not been so close to its ceiling, but as a result of parallel domestic policy reform which has for many products negated the need to use export subsidies so extensively.

It is important to note, however, that the levels of reduction, and importantly, the scope for further reductions in the levels of export subsidy use, differ by product, as Figure 1 shows.

Note that for sugar the recent WTO panel ruling throws into doubt the claim that only 26 percent of EU sugar exports receive export subsidies. Jales (2004) calculates that if the ruling is upheld then the proportion of subsidized exports would be closer to 65 percent.

The levels of expenditure (and proportion of subsidized exports) for cereals and white meats are expected to fall as the recently agreed Common Agricultural Policy (CAP) reforms come into effect. It is notable however that these reforms are lagging behind in the dairy and sugar sectors, where the greatest cuts would be required if export subsidies were to be eliminated. The use of export subsidies on sugar has fallen in recent years, but less so than for other products.

- *Impacts*

Although attracting much attention, the evidence suggests that the longer term impact of eliminating export subsidies on world market prices will be relatively limited for most commodities.

Gohin (2004) provides a summary of the impacts generated by a range of models in terms of changes in EU and international prices and EU exports in the long run for a range of commodities following the elimination of export subsidies in the EU. World market price effects, although differing in magnitude, suggest that the impact of export subsidy elimination is likely to be relatively small. For example, European wheat exports are projected to increase following the elimination of the export subsidies, offsetting to some extent the expected reduction in coarse grain exports. Although reductions in both European beef prices and exports are significant, the impact on the world price of these commodities is limited.

In the short run, disruption to markets as a result of the use of export subsidies may be observed more in the form of domestic price instability of import substitutes in developing countries, than in the levels of world market prices. This suggests that analysis focusing on the market effects of these policies/activities needs more precision. For example, analysis at the level of bilateral trade flows is likely to be more revealing than analysis at the aggregate market

level where relatively small absolute decreases in exports from one country are likely to have a negligible impact on the aggregate world price. Such analysis should also attempt to investigate effects on competing country export flows.

Abbott (2004) suggests that the impacts of the elimination of export subsidies are not only small but that they are also inconsistent, and non-comparable across models. He explains this as resulting from the need for models to abstract from the institutional details of policy alternatives. Factors explaining the differences across the studies include: the reference run period; the price elasticities assumed; the way in which the policy instrument is modelled (in General Equilibrium (GE) models analysts tend to use tariff equivalents of policies i.e. a price wedge between the domestic and world price); and the structure of the model (whether GE or Partial Equilibrium (PE)).

In terms of their relative importance, assumptions about elasticities are demonstrated to be crucial. While the PE/GE distinction is not critical regarding market impacts, it is for the determination of welfare impacts. Although the outcomes are strongly dependent on the parameter values, Abbott (2004) suggests that econometric estimates - particularly of net trade elasticities substitution elasticities (between domestic and foreign goods) and transmission elasticities - are weak and conflict with prior information. In addition, whilst the key effects of export subsidies are dynamic and play out in imperfectly competitive markets, most models are static and assume perfect competition.

Model results may also be criticized for projecting the elimination of export subsidies, without incorporating broader CAP reforms, where future support to producers rather than being reduced will be provided through other mechanisms (such as the EU Single Farm Payment). Although argued to be a more decoupled mechanism of support, there is unresolved debate as to the extent to which this form of support will contribute to the maintenance of production levels in the EU, and therefore trade volumes. This issue is examined in a separate technical note on Domestic Support.

Table 1 Pattern of export credit use 1995 -998 (million \$US)

	1995	1996	1997	1998	Total	Share	Percentage share of exports with credits	Credits less than one year	< 1 year as proportion of total by country (%)
Australia	1 106	2 014	2 130	1 553	6 803	24	15	6 803	100
Canada	570	697	1 239	1 108	3 613	13	5	3 513	97
European Union	985	989	1 151	1 254	4 379	16	2	4 094	93
United States	2 843	3 188	2 845	3 929	12 806	46	5	710	6
Other countries	0	71	58	66	195	1	-	137	71
Total	5 504	6 959	7 423	7 910	27 796		4	15 257	

Source: adapted from OECD (2000b)

(b) Export credits

An officially supported export credit is defined by the OECD (2000b) as a guarantee, insurance, financing, refinancing or interest rate support arrangement provided by a government which allows a foreign buyer of exported goods and/or services to defer payments over a period of time.

- *Incidence*

Information on the incidence of the use of export credits is extremely difficult to obtain given that (i) countries are not currently obliged to notify their use of such expenditure to the WTO and (ii) the terms under which export credits are provided are deemed to be of a confidential nature. Most analyses and viewpoints are based upon information presented by OECD which was in turn derived from a confidential survey by OECD of the use of export credits by Participants to the Export Credit Arrangements during the period 1995 to 1998. Although OECD have undertaken comprehensive analyses of the survey data (see for example OECD, 2000b) and through such publications have made summary data available, it should be borne in mind that the data are representative of the period 1995-98 only.

In aggregate, export credits increased from \$US5.5 billion in 1995 to \$US 7.9 billion in 1998. Table 1 provides the breakdown in use by country over the period 1995-98. The table also shows that of the total credits provided during the period 45 percent were credits with repayment periods exceeding one year. Fully 95 percent of credits exceeding one year were used by the United States. Finally, the table shows that in terms of use as a proportion of the value of total exports, Australia used significantly greater proportions, at 15 percent than the other three countries (2-5 percent).

The majority of export credits are used to support United States exports, and also account for almost all of those with repayment periods in excess of 180 days. In the EU, the other significant user, the level of export credits was significantly less than the use of export subsidies. The level and use of export credits is a decision for individual countries, not the European Commission, unlike the case of export subsidies.

On the basis of United States data, ICONNE (Jales, 2004) has demonstrated that a wide range of commodities benefit from export credits, but that the proportion of exports benefiting from export credits in any one product group does not generally exceed 15 percent (1994-2004 averages). For example, wheat, protein meal and cotton each benefit from about 15 percent of exports receiving credits, oilseeds and rice about 10 percent, and meat products 2 percent with annual peaks during the period of up to 20 percent of exports (Jales, 2004). The share of exports benefiting from export credits by all countries in 1998 is shown in Table 2.

Table 2: Share of exports benefiting from export credits by product group (1998)

Product group	Proportion of exports benefiting (%)
Livestock	3.4
Vegetables	4.6
Cereals	13.8
Oils and fats	3.1
Processed food	1.3
Hides and skins	12.5
Wool and hair	24.7

Source: Adapted from OECD (2000b)

Perhaps of more interest in contemporary debates are the main destinations of exports attracting export credit guarantees. A justification for the use of export credits is often made in relation to liquidity constraints in the recipient country. Contrary to the assumption that it is poorer developing countries that receive the bulk of these facilities, they are in practice applied mostly to imports by middle-income countries and by other OECD economies. Less developed countries appear to receive only minimal access to these programmes and during 1995–98 may have received no export credits from the United States.⁶ While it is true that some countries would certainly benefit from the use of export credits, flour mills in an LDC may, for example, need credit to purchase imported wheat and can only support the purchase of the wheat once the milled flour is sold, the fact that most recipients are middle income or developed countries sheds doubt on this explanation for the continued use of export credits. For example, the US GSM-102, which accounts for the bulk of expenditure under the United States' export credit programme, extended 19 percent of its credits to Mexico, 18 percent to South America and 17 percent to the Republic of Korea, but only 0.3 percent of total credits to sub-Saharan Africa (ICONE 2004). NFIDCs fared better, receiving 8.9 percent of total export credits. (OECD, 2000b).

There is a research need to establish whether there are in fact significant liquidity constraints to developing country importers, and where these exist, the extent to which they relate to capital market imperfections which could be addressed as a more appropriate alternative to the extension of tied export credit. However, where data are particularly sparse is in relation to the detail of the terms of an individual transaction, for example, the interest rate paid, the initial fee and the repayment period.

- *Impacts*

Bearing mind that most cross country data (data is available for some countries across longer periods than others) analysis is based on a single data set covering 1995–98 and that this may not be a representative period, a number of observations can be made as to the impact of export credits.

The most comprehensive publicly available examination (OECD, 2000b) gives estimates of the subsidy equivalent of export credits provided by different countries, taking into account a number of factors related to repayment terms (covered in more detail below). For three OECD countries (the United States, Canada and Australia), the export subsidy elements of export

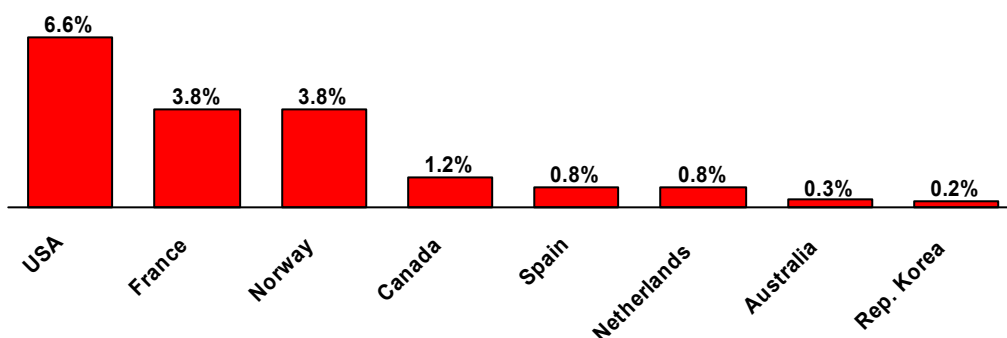
credit operations are higher than their export subsidy expenditures. OECD found that the export credits from the United States in 1998, mainly by virtue of their longer repayment terms, have a higher per unit subsidy equivalent than those from other countries. Even so, the subsidy equivalent indicates that the importers pay on average 6.6 percent less for those transactions that are facilitated by United States export credits than they would without access to this support. These numbers are corroborated by estimates from the United States General Accounting Office of about 9.9 percent.

Given the relatively small export subsidy component of these export credit which essentially focus on the "price" element of the credit i.e. how much cheaper they make the exports than commercial alternatives not benefiting from credits, perhaps the more relevant question is how sensitive export patterns are to the use of credits. The fact that credit is available could be the reason why a certain transaction occurs. For example, Egyptian wheat purchasers buy United States wheat at a price 10 percent higher than they could procure it from Australia because the credit is available on more favourable terms. It is also argued however that whilst the financing is certainly part of decision as to how a trade deal is negotiated, the unit price of the commodity still has some impact of the decision.

Similarly, it could be argued that there is import additionality, i.e. that the imports assisted by export credits do not replace imports procured on a purely commercial basis, as the latter would not otherwise be imported. In other words, that export credits can increase the effective demand for imports. However, the net effect on trade flows also depends on the exporter side. If export expansion in the country providing the export credits is greater than the import additionality created by the existence of these credits, then this could potentially result in negative effects on third country exporters.

⁶ A small share of the export credits used by the U.S. was received by a country grouping that included LDCs and NFIDCS and it is therefore possible that a part of this amount was provided to these countries.

Figure 2: Subsidy equivalent of export credit by country (1998)



Source: Jales (2004) based on OECD (2000b).

- *Factors determining impact*

The precise impact of export credits depends upon a number of factors related to both the *level of budgetary expenditure* on the credits and to the *terms of the repayment* of the credits. The latter factors are reflected in present-value calculations of the importer's cost of receiving a loan at a rate below the market rate. The parameters that affect the calculations are the level of the subsidized or guaranteed interest rate; the length of the repayment period, any grace period before the repayments commence; the number of payments required per year; and the level of any down-payment or fees.

While data on some aspects are available (e.g. the fee data is provided in an annex to the analysis in OECD (2000b)), data on other aspects - for example the interest rate offered on each transaction, and the market interest rate by country against which to determine the subsidy in the interest rate - are not readily available. Precise estimates of the effect of credits on the decisions of importers are therefore problematic. However, some broad observations can be made.

- Length of repayment period: the 180-day cut off

It has generally been agreed that for bulk commodities 180 days is the approximate upper limit on the useful length of the use or sale of such products. For these types of product, the credit is only needed until proceeds from the sale on the local market are received. For bulk commodities, any further credit should be redundant after six months, and the credit effectively becomes a subsidy to the recipient.

However, it is less clear that a 180 day repayment period is suitable for more perishable products, such as fruit and vegetables for which the subsidy effect would come in much earlier, or

for certain genetic materials, where the subsidy effect may not be felt until well after 180 days.

A key question for further research is whether the removal of credits associated with long term trade arrangements will cause a switch in the sourcing of the commodity away from the country previously extending the credit. This depends on the elasticity of substitution of an importing country's imports from different countries, with higher elasticities implying greater scope for substitution.

- Re-instrumentation of the terms

In addition to the repayment period, there are a number of other parameters, the effects of which can offset each other. For example, if countries were forced to restrict the length of repayment to less than 180 days, they could increase the level of subsidy on the interest rate. Similarly, if countries were not allowed to subsidize the interest rate on credits to more than a certain level below the market rate, then they could offset this less favourable characteristic by, for example, reducing the levels of fees or down payments.

One suggestion for further research is to attempt to group arrangements under certain characteristics in order to inform as to which are most distortive. A key difficulty in assessing, and therefore in eventually disciplining, such parameters is that much of the data is confidential, allowing no analysis of individual transactions.

- Level of budgetary expenditure

Whilst data on the components of the terms of repayment may be difficult to obtain, data on the overall level of expenditure by country are generally more accessible. As suggested in the final section of this Note, caps on budgetary expenditure may, for this reason, be a more effective way of disciplining the use of export credits.

(c) State Trading Enterprises

State Trading Enterprises (STEs) are defined by WTO as:

“Government and non-governmental enterprises, including marketing boards, which have been granted exclusive or special rights or privileges, including statutory or constitutional powers, in the exercise of which they influence through their purchases or sales the level or direction of imports or exports.” (WTO 1995)

- **Issues**

As in the case of export credits (and unlike the case of export subsidies) there is unresolved debate as to the balance of the relative merits of the existence of STEs. On the one hand, such entities have been criticized on issues related to the use of their monopoly status to influence market conditions and trade flows, and for the lack of transparency in relation to their actions. For example, they may be granted subsidies by governments to facilitate their operation at lower than competitive returns.

Against this, others argue that STEs are a useful response to imperfect world commodity markets. Activities such as price pooling and the underwriting of losses, which can produce similar effects to those of export subsidies, can also be beneficial in reducing risks to farmers and traders (Young, 2004). In addition, their large size (in terms of the volumes transacted) allows them to compete with large multinational trading companies, whose own use of market power has also come in for criticism.

A number of observations on positive and negative aspects of STEs have been made:

- STEs can enable subsidization across commodities and can provide credit at lower than market rates. As an example of cross subsidies, Australian sugar producers have access to support packages because the world market price is thought to be artificially depressed by other countries' sugar policies. The cost of these support packages is recovered via a consumer levy on the domestic market. This activity is positive in the sense that it is assisting producers in an uncompetitive market, but could at the same time be criticized for reducing producers' risk exposure to the extent that their supply response generates additional levels of exports at lower cost than more competitive exporters.
- Exporting STEs can be provided with hidden subsidies from governments. However, these can be difficult to observe, for example subsidies used in the recapitalization of a sugar mill. Again,

there may be offsetting positive aspects in the sense that the local sugar industry may otherwise have difficulty in remaining competitive if, for example, local credit markets are functioning imperfectly.

- It has been demonstrated that the use of tariff barriers on imports in association with an STE, can increase export volumes from the tariff imposing country (Larue, Fulton and Veeman, 2001). Under WTO agreements, importing STEs are not allowed to sell products on the domestic market for more than the price at which they import them (i.e. the import cost plus the tariff). In other words they are not permitted to impose additional hidden tariffs. A protected high priced domestic market can be used to generate surpluses that can then be exported at subsidized rates.
- STEs often have monopoly rights to export and it is argued that they exercise their power in international markets. Some aspects of the use of monopoly are allowed within the WTO. For example, whilst price discrimination is argued to result in higher prices for producers, it is also practiced by private firms and so would be difficult, and perhaps inappropriate, for discipline by WTO.
- In comparison to private marketing practices STEs, on the basis of the fact that they can import and export large quantities, could control a greater share of the market and this is assumed to have a potentially greater impact on the direction of trade flows. In some cases the private sector can find it difficult to finance a whole cargo from for example, a large exporter in Canada, the United States or Australia, since these countries favour large shipments as they obtain competitive benefits from transporting large volumes and therefore from reduced transport costs. The ability to source smaller amounts from exporting STEs that are not as constrained by profit generation objectives as private corporations, could be seen to be beneficial.

In determining whether, and indeed how, to eliminate or discipline certain actions of STEs, it is important to bear in mind these relative merits and to seek to achieve a greater understanding as to whether, on balance, the activities of individual STEs are detrimental (and should therefore be restricted) or beneficial (where more care might be required before attempting to restrict certain activities).

- *Incidence*

How significant are the actions of STEs? OECD (2000c, 2000d) provide a comprehensive review of the existence and activities of STEs in the OECD. In developing countries, examples include China's COFCO in rice, maize and cotton and Indonesia's Bulog. However, the latter are believed to have limited market power and indeed, China's export STE which currently exports quantities equivalent to 10 percent of total global rice exports is expected to become a net importer in the near future.

From a political point of view the importance of a relatively small number of key STEs is recognized as driving the arguments for more stringent disciplines. Such STEs include the Australian Wheat Board and the Canadian Wheat Board which together account for 40 percent of the global wheat market; Vietnam's rice exporting STE which contributes to 10 percent of global rice exports; the United States Commodity Credit Corporation; and Fonterra⁷, which accounts for 30 percent of total dairy exports. Other STEs, for example the New Zealand Kiwifruit Board, although significant in their shares of their respective export markets are not as politically significant in the current negotiations as those engaged in the export of bulk commodities (Young, 2004).

- *Impacts*

From an empirical viewpoint, there is little evidence that the existence of STEs causes significant market distortion. Sumner and Boltuck (2001) and Carter and Smith (2001) found no evidence of market power for the Canadian Wheat Board (CWB), and no evidence that its actions harmed United States exporters. Indeed, there are no widely accepted studies indicating that current STEs are distorting markets in a significant fashion. However, there is concern that the activities of such entities could increase, and potentially cause market distortions, if these actions are not subject to discipline whilst the other components of export competition are.

Theoretical analysis can be used to draw insights as to the potential distortive impact under a range of situations, and to identify characteristics of STEs that may be more market distorting than others. McCorrison and MacLaren (2004) attempt to operationalize a definition of subsidy equivalence as "the export subsidy that would be paid to the n private firms to replicate the same quantity of exports that arise in a given STE environment". They find that a subsidy equivalent defined in this way can be positive or negative. A framework developed by the authors

can be used to provide insights into circumstances under which the trade distorting effect is positive or negative, and the factors that can determine the size of the subsidy equivalent.

Positive effects are found to arise where the market would otherwise be less competitive; when the STE is the only policy instrument used, and when there is a bias in the pay-off function towards producers. By contrast, a negative effect is more likely to arise when the STE has exclusive rights to export only (although this in turn depends on how competitive the domestic market is); the less efficient the STE; where the bias is towards consumers; and when government also uses price support as a policy instrument.

- *Factors determining impact*

Key lessons from this theoretical analysis relate to (a) knowing how competitive the market would be in the absence of the STE and (b) the actual configuration and actions of the STE – one STE will not necessarily have the same magnitude of impact or even the same direction of impact in terms of its trade distortion as another STE.

In terms of equivalence, evidence (both empirical and theoretical) suggests that an increase in export levels with the use of direct export subsidies will always be higher than if the same amount of support is provided via financial assistance to an STE.

In relation to the insights from the theoretical framework proposed by McCorrison and MacLaren (2005), a number of observations can be made:

- *Competitiveness of the market*

There are widely held concerns about private exporters, given that the international trade of many agricultural commodities is concentrated in the hands of a few private multinational firms which are likely to be in a position to exert market power. It is argued that international markets are far from being perfectly competitive and that private exporters compete with STEs in an oligopolistic market.

Scoppola (2004) argues that there is however some debate as to whether either multinational firms or STEs can exert market power on, for example, international grain markets. Analyses by Caves and Pugel (1982), Carter, Loynes and Berwald (1998) and Carter and Smith (2001) suggest that they cannot. However, others have argued that both can exert market power and are able to influence international prices in oligopolistic markets (e.g. Fulton, Larue and Veeman (1999); McCorrison and MacLaren (2002) and Hamilton and Stiegert (2002)).

⁷ The former New Zealand Dairy Board STEs is now a farmer owned cooperatives, Fonterra.

- Exclusive rights vs ownership

Theory suggests that the issue concerning competitive behaviour of STEs is not whether they are publicly or privately owned, but the nature of rights that they have to procure and to disburse products. Exclusive rights for exporting STEs can apply in both the domestic or export markets and/or apply both to sales and procurement. These rights differ across STEs. For example, the Canadian Wheat Board has exclusive rights in the domestic and export market, whilst others only have exclusive rights in the domestic market.

STEs and private firms can also differ in respect of their objective function. STEs often have a wider social mandate, for example in reducing consumer food prices or stabilizing producer prices, as opposed to private firms which are concerned more with maximizing returns to stakeholders. A number of authors argue that this can result in significantly different trade impacts (e.g. Dixit and Josling (1997); McCorrison and MacLaren (2002); Carter, Loyns and Berwald (1998); and Carter and Smith (2001)).

(d) Food aid

Disciplines on mechanisms by which food aid is procured and/or disbursed are under negotiation primarily as a result of fears that its use as a mechanism for surplus disposal will increase if countries become more constrained in other mechanisms of supporting exports. However, food aid by definition is also a humanitarian issue and there are grave concerns that eliminating or disciplining food aid in an indiscriminate manner, while reducing the scope for use of potentially more distorting forms of food aid, will undoubtedly also have a negative impact on the beneficial aspects of food aid.

- *Issues*

The food aid component of the August Framework Agreement covers issues relating to commercial displacement, the role of international organizations as regards the provision of food aid, and the question of providing food aid fully in grant form. A separate technical note in this series provides a far more comprehensive coverage of the different aspects as they relate to the WTO negotiations and to debates relating to food aid more broadly.⁸ This technical note focuses more narrowly on the issue of commercial displacement and international market distortions and raises some of the possible implications of the imposition of further disciplines.

⁸ Questions such as for example, the extent to which monetized food aid is beneficial from a development perspective are covered in the FAO Trade Policy Technical Note on Food Aid.

Food aid is disbursed in a number of forms. Different types of food aid may displace commercial imports in different degrees. Broadly, food aid can be categorized as emergency and non-emergency.

- Emergency food aid

WTO draft modalities (as developed in the Harbinson draft) have indicated that there should be no restrictions on emergency food aid. This view is broadly supported given that even if there are effects in terms of commercial trade displacement or international market distortions, these are likely to be minimal because of the high consumption additionality (see below) of emergency food aid. Nevertheless, an important issue for the negotiations to deal with is through which process, and by whom, an emergency is declared.

Emergency food aid accounts for about 60-70 percent of total disbursement. It is the remaining portion where there is some dispute about the impacts of different mechanisms for both procurement and disbursement.

- Non emergency food aid

Non-emergency food aid can be divided into (a) targeted food aid which is given as food to recipients (examples of targeted food aid include food-for-work or school lunch programmes) and (b) monetized food aid which is sold on local markets. The cash from the sale of this food can be used to fund development projects.

- *Impacts*

How can consumption additionality be defined and measured? Food aid is defined to be additional if given to people who would not have consumed it otherwise due to their inability to access additional food by other means. Intuitively, emergency food aid should be closest to being fully additional in consumption as the recipients are by definition in distress and would not otherwise access alternative sources of food.

Targeted food aid is considered to have higher additionality than monetized food aid. The extent to which it is additional will, however, depend upon how well targeted it is. It should be recognized that just because it is targeted, this does not mean that it is not subsequently sold in the market and could therefore potentially displace imports or create market distortions.

Monetized food aid includes some components of project food aid (the United States is the only donor to monetize project food aid) and all programme food aid. Although there are few empirical estimates of additionality, in both cases the extent of additionality is likely to be less than for targeted food aid. Against this, the benefits to recipients of, for example, agricultural

development projects funded via the monetization of food aid need to be considered (Young 2004a).

Additionality is likely to be situation-dependent. In incidences of conflict, the ability to import may otherwise be restricted and food aid would be expected to be more additional. Rates of inflation can also be high and wage earners unable to work in these situations, both contributing to reduced ability of individuals to access alternative food sources (Young 2004a).

Additionality can also depend on programme design and implementation. The use of funds generated and whether they enhance demand or supply, i.e. whether used to increase direct consumption or to fund supply enhancing agricultural projects will contribute to determining the extent of additionality.

5 Moving the debate forward

• *Broad questions and issues*

This note has identified the key questions posed by the August Framework Agreement as follows:

- Is it possible to compare the various components of export competition (i.e. determine their equivalence) in order to ensure parallel elimination and/or disciplines?

There are methodological approaches for attempting to determine the impact of policies and institutions relating to export competition. Determining equivalence requires, by definition, a benchmark based on the effect of export subsidies against which to compare the effect of other components of export competition. As alluded to above, however, there are difficulties in attempting to model the effect of export subsidies. Models often base their baseline projections on expected parameter values, ignoring the possible distribution of the parameters. As a result, they often omit extreme values, assuming for example, that the US\$:Euro exchange rate will not fall outside a certain range. A continued fall in the dollar price of wheat for example, would increase the use of export subsidies.

Perhaps more importantly, these methodologies are difficult to use given the detailed data requirements, which are often precluded because of confidentiality aspects. In addition, methodologies that investigate price effects often find there are negligible impacts of the removal of these policies, given the array of other government interventions and the imperfect status of many of the markets in which these policies are used. In this context, a distinction needs to be made between the impacts of the policy under consideration and the likely trade

flows under the imposition of an “optimal” competition policy.

- Is it desirable to attempt to operationalize the concept of equivalence?

Given that the measurement of equivalence is problematic, and as a result, the operationalization is too complex for a rule-based system, negotiations need to determine whether existing rules are sufficient, or whether further disciplines can be developed outside the concept of equivalence. It may, for example, be better to attempt to develop rules that can effectively reduce distortions in each area of export competition, rather than attempt to establish comparability as a basis for the development of rules.

A critical step is to determine how to develop rules which eliminate the use of export credits, STEs and food aid as implicit export subsidies, without losing the benefits which can arise for their use where market imperfections exist.

• *Export subsidies*

Before turning to the components of export competition requiring the most attention in the development of modalities, an issue worthy of attention in relation to export subsidies is whether scheduled export subsidies encapsulate all forms of policy that effectively provide an export subsidy and that have a detrimental effect on trade flows.

Although the elimination, over time, of scheduled export subsidies has essentially been agreed to, retaining the current definition of scheduled export subsidies may leave other issues unaddressed, such as that of domestic support. In the EU for example, expenditure on export subsidies will fall as a result of CAP reform. However the quantity of exports, the production of which will implicitly be subsidized, may not fall significantly under a reformed CAP.⁹ It is important therefore, not to consider the elimination of export subsidies in isolation.

Recent WTO dispute settlement cases have revisited the concept of export subsidy in this light. These include Canada’s dairy pricing scheme and the United States Foreign Sales Corporation, and more recently, the United States domestic support for cotton and the EU sugar regime. As a result, countries have been requested to revise programmes and/or notify programme related expenditures as export subsidies. However, current notifications still do not reflect these decisions.

⁹ Evidence on the potential production impacts of shifts to “less coupled” forms of support is examined in a separate Trade Policy Technical Note on Domestic Support.

- *Export credits*

The main issue in relation to export credits is whether they negatively affect trade flows or, conversely, generate import additionality.

Severe data problems (generally associated with confidentiality aspects) make the establishment of the trade effects extremely problematic. Indeed there is effectively no data availability outside the United States and Canada on export credits, and even where it is available it is at too aggregate a level to fully determine the trade effects. Individual transactions can vary widely in terms of their repayment conditions and the situation in which they occur can also have a significant effect on their potential impact.

Nevertheless, the evidence reviewed above suggests that credits extended beyond 180 days are effectively subsidies, as financing is not required for periods exceeding this length to cover the purchase-sale lag.

However, constraining credits to repayment periods of less than 180 days is not sufficient on its own if the objective is to eliminate the perceived negative effect of these credits. Reinstrumentation of the terms of the credits makes it possible to reduce the repayment period but make other terms, such as interest rates and fees more favourable. It is for the terms of repayment for the remaining categories of export credits with repayment periods of less than 180 days, that the disciplines would need to be developed.

There is, however, a difference of opinion as to how to go about disciplining these aspects, whether to attempt to discipline individual aspects of the terms of the transaction, or to discipline use through caps on overall budgetary expenditures.

The net cost of export credits can be measured and enforced, since if there is a subsidy element there has to be an associated cost. Analysts can keep track of this cost and it has been suggested that disciplines could be based on such expenditure rather than trying to discipline each detail.

However, would a simple rule of limiting the term and the budget expenditure effectively discipline the subsidy element of export credits? Others argue that there is a need to discipline the terms as well. For instance, if there is a limit on expenditure, then governments could simply reduce the interest rate to zero. In other words, disciplines would be needed on both. Weighed against these arguments are the likely prohibitive data problems in attempting to operationalize a system of disciplines on the different components of the terms of a transaction.

Furthermore, there is a possible danger that in placing disciplines that are too stringent upon the use of export credits, legitimate uses could be constrained. For example, although the vast

majority of transfers under credits are not currently with LDCs and NFIDCs and there is some doubt as to whether export credits are really used to resolve liquidity constraints, it is important that disciplines are flexible enough to limit the subsidy element but not to cut out the option to use them to overcome liquidity constraints in the future.

One example of how this type of dilemma could be resolved would be to separate budgetary expenditures into two categories on the basis of the status of the recipient country. For the category of budgetary expenditures on credits extended to other OECD or middle income developing countries, there would be a cap on total expenditure which would be reduced over time. A second budget would cover credits extended to LDCs, where the level of expenditure would not be constrained. For this approach to be workable, a clear distinction would need to be made between the programmes and the categorization of countries - whether an established category such as LDCs or a category defined on the basis of specific situations - would need to be explicit. (see FAO Trade Policy Technical Note on SDT for a fuller discussion of this issue).

- *State Trading Enterprises*

Key questions in relation to STEs are whether there is sufficient recognition of the different roles of STEs and whether through these rules they are able to extend benefits over and above those played by the private sector (which could imply private sector monopolies) in the context of imperfect markets.

It has been argued that imposing further disciplines on STEs could be detrimental given the relatively small number that are currently politically important. There is also some evidence that current WTO rulings, for example those relating to the Canadian Wheat Board, are effective in ensuring that the position of STEs is not abused to the extent that damage to third country exporters is caused.

An important concern in relation to disciplines is the proposed elimination of monopoly export rights. The idea here is that private enterprises should be able to "coexist" with the STEs, i.e. allowed to purchase export commodities from domestic producers and to engage in the export of these commodities. However, there are few cases of successful coexistence, and STEs are seldom able to maintain a viable market share in a deregulated environment. While the demise of uncompetitive entities may be seen as a positive consequence, situations may arise in which a private monopoly, with the sole objective function of maximizing its own profits (rather than for example, an STE providing support to producers which would no longer be possible without the economies of scale in marketing) may in the

longer run replace the STE, with a less optimal outcome. Restrictive disciplines on (or the elimination of) STEs will not therefore necessarily remove trade distortions resulting from the use of monopoly power, rather they could enhance the market power of private enterprises.

In attempting to limit exclusive rights, the relative roles of private and state enterprises need to be considered, and any new measures, to be effective, would have to be part of world competition policy that applied equally to state and private enterprises. This would however require transparency on the part of the multinationals, which may be unrealistic to expect.

It is important therefore that if further disciplines are developed they are cognizant of the fact that sub-optimal results may be obtained. Caution is required given the lack of evidence on the relative benefits of these entities.

As in the other areas above, data issues are paramount in attempts to determine the impacts of STE activities on trade. STEs generally construct their own publications to rationalize their existence and as such, they may not provide the data required for analysis. In the case of private enterprises, the data issue is still worse, given confidentiality constraints to their release. The kinds of data needed to determine the effects would include the type of exclusive rights, the scale of activities in relation to trade flows and the objective function of the STE. However, it could be argued that the objective function of enterprises is not the concern of the WTO, since enterprises cannot be forced to maximize profits. Given the evidence that STEs can correct market power, the WTO almost certainly provides an incomplete framework for addressing the issue of STEs.

- *Food Aid*

The goal of disciplines on food aid would essentially be to prevent commercial trade displacement and/or international market distortions. However, any disciplines need to be considered in light of the benefits accruing to the use of food aid, namely, its potential humanitarian and development benefits.

It is important to note that the mechanisms by which food aid is procured and disbursed have changed substantially in the last few years and that debates around disciplining food aid are not always cognizant of this fact.

A way forward may be to rank different forms of food aid on the basis of their trade distortive potential. This ranking could be used to inform the elimination or disciplining of those forms of food aid that more than likely result in commercial displacement and do not result in significant benefits to recipient countries, whilst allowing a shift in resources allocated to food aid to those where the net benefits are greatest, through better

targeting. A large proportion of food aid, emergency food aid, may have little impact.

Evidence suggests that greater and more effective targeting results in additionality, and by definition, less distortion. By contrast, there may be a case for eliminating monetized food aid that is not targeted.

Again, it is important not to treat all forms of the broad categories of emergency, project and programme food aid in a similar fashion. Eliminating the option of monetized food aid may, for example, be premature, since the benefits of some forms of project food aid could be great enough to allow some displacement. These forms may involve an aspect of monetization. It may be appropriate to set a criterion on the proportion of allowable monetization, perhaps enough to cover transaction costs if this could be established, or by setting an upper bound of, for example, 25 percent and not allowing monetization of a greater share.

Disciplines on exporters could also be considered as a way of ensuring that food aid is not being used to circumvent disciplines on other aspects of export competition. For example, preventing the tying of some aspects of aid procurement and disbursement.¹⁰ On the importer side, disciplines could be used to encourage greater targeting of food aid to the poor where it would be more likely to be additional in consumption.

A concern that needs to be borne in mind when considering such disciplines, however, is whether the portion of food aid eliminated or reduced by the disciplines would be replaced by financial aid. In the United States, for example, food aid accounts for 6 percent of overseas development aid (and the monetized portion for about 2 percent).

- *Concluding remarks*

Agreements in the WTO have generally been developed on the basis of simple rules, and not on rules that are based on results of complex models. The measurement of equivalence, whilst currently perceived as a workable concept, is in practice likely to fall into the latter category of rules, requiring sophisticated analysis to determine the relative effect of various components of export competition.

To move the negotiations on export competition forward, it will be necessary to develop simple rules to discipline distortive activities without removing the benefits that they provide in ameliorating distortions in for example capital markets, and their associated development and humanitarian benefits.

¹⁰ See FAO Trade Policy Technical Note on Food aid for greater detail.

One general approach to developing such rules would be to group activities in terms of their likelihood to influence trade flows, not on the basis of their price equivalence, even where this could in theory be measured, since this would require a more complicated set of rules and criteria.

The combination of measures may matter more than their individual effects. Developing a workable grouping would therefore depend on how substitutable the practices are. If at the extreme they were perfectly substitutable it would

be necessary to discipline them all. Evidence suggests, however, that this is not necessarily the

case, and although some level of re-instrumentation could occur, stringent disciplines are likely to be inappropriate.

In considering the development of new rules, the form of WTO notifications will also be important. Decisions will need to be taken on which practices should be included in the notification obligations. This would need to be supplemented by information requirements needed to understand how these policies work. To ensure workable disciplines and compliance, notifications would also need to be more timely than at present.

6 References

- Abbott, P.** 2004. The impact of export competition policies. Presentation at an Informal Expert Consultation on Export Competition: Equivalence of Alternative Policies and Mechanisms. FAO, Rome. 25 – 26 November 2004.
- Abbott, P & Young, L.** 2003. Export competition issues in the Doha Round. Invited Paper presented at the International Conference: Agricultural policy reform and the WTO: where are we heading? Capri June 23-26. 2003.
- Carter, C., Loyns, R. & Berwald, D.** 1998. Domestic costs of statutory marketing boards: the case of the Canadian Wheat Board. *American Journal of Agricultural Economics*. 80, 313-324.
- Carter, C. & Smith, V.** 2001. The potential impacts of state trading enterprises on world markets: The exporting country case. *Canadian Journal of Agricultural Economics* 49 (4): 429 - 439
- Caves, R.E. & Pugel, T.A.** 1982. New evidence on competition in grain trade, *Food Research Institute Studies*, Vol.18 (3) p.261-274
- Dixit, P & Josling, T.** 1997. State trading in agriculture: An Analytical Framework. International Agricultural Trade Research Consortium Working Paper 97-4 University of Minnesota
- Gohin, A.** 2004. The phasing out of direct export subsidies: Impacts on EU agriculture. Presentation at an Informal Expert Consultation on Export Competition: Equivalence of Alternative Policies and Mechanisms. FAO, Rome. 25 – 26 November 2004
- Hamilton, S. F. & Stiegert, K. W.** 2002. An empirical test of the rent-shifting hypothesis: the case of state trading enterprises, *Journal of International Economics* 58 (1) 135-157
- Heffernan, W.D. & Constance, D.H.** 1994. Transnational corporations and the globalization of the food system. In A. Bonanno, L. Busch, W. H. Friedland, L. Gouveia, and Enzo Mingione. (eds.). *From Columbus to Conagra: the globalization of agriculture and food*. University Press of Kansas;
- Jales, M.** 2004. The Impact of export competition policies: export subsidies and export credits. Presentation at an Informal Expert Consultation on Export Competition: Equivalence of Alternative Policies and Mechanisms. FAO, Rome. 25 – 26 November 2004
- Larue, B., Fulton, M. & Veeman, M.** 1999. On exporting by import state traders and peculiar effects of negotiated minimum access commitments. *Canadian Journal of Agricultural Economics* 47 (4) 375-384.
- McCorryston, S. & MacLaren, D.** 2002. Perspectives on the state trading issues in the WTO negotiations. *European Review of Agricultural Economics*, Vol. 29 (1) p.131-154
- McCorryston, S & MacLaren, D.** 2004. trade distorting STEs. Presentation at an Informal Expert Consultation on Export Competition: Equivalence of Alternative Policies and Mechanisms. FAO, Rome. 25 – 26 November 2004
- McCorryston, S & MacLaren, D.** 2004a. Single-desk state trading exporters. *European Journal of Political Economy* (in press)
- McCorryston, S. & MacLaren, D.** 2005. Domestic market structure and trade: Modelling the effects of trade distorting state trading enterprises. In: S. Jayasuriya (ed) *Trade Theory and Analytical Models: Essays in Honour of Peter Lloyd*. Vol 1 Edward Edgar, UK. Forthcoming
- OECD.** 2000a. A forward looking analysis of export subsidies in agriculture. COM/AGR/TD/WP(2000)90 OECD, Paris
- OECD.** 2000b. An analysis of officially supported export credits in agriculture. COM/AGR/TD/WP(2000)91. OECD, Paris
- OECD.** 2000c. A review of State Trading Enterprises in agriculture in OECD member countries: An Inventory. COM/AGR/APM/TD/WP(2000)19. OECD, Paris.
- OECD.** 2000d. A review of state trading enterprises in agriculture in OECD countries. COM/AGR/APM/TD/WP(2000)18. OECD, Paris.
- Scoppola, M.** 2004. Determining appropriate disciplines for STE: STE and private exporters. Presentation at an Informal Expert Consultation on Export Competition: Equivalence of Alternative Policies and Mechanisms. FAO, Rome. 25 – 26 November 2004
- Sumner, D. & Boltuck, R.** 2001. Anatomy of the global wheat market and the role of the Canadian Wheat Board. http://www.cwb.ca/en/topics/world_trade/pdf/2001-02_economist-report.pdf
- WTO.** 1995. The results of the Uruguay Round of Multilateral Negotiations: The legal texts. Geneva
- WTO.** 2004. Doha Work programme: Decision adopted by the General Council on 1 August 2004. WT/L/579 2 August 2004
- Young, L.** 2004. Food aid: possible disciplines. Presentation at an Informal Expert Consultation on Export Competition: Equivalence of Alternative Policies and Mechanisms. FAO, Rome. 25 – 26 November 2004
- Young, L.** 2004a. State Trading Enterprises: Possible disciplines. Presentation at an Informal Expert Consultation on Export Competition: Equivalence of Alternative Policies and Mechanisms. FAO, Rome. 25 – 26 November 2004.

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