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Reform of Agricultural Export Credit Programs

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This paper examines whether government-sponsored export credit arrangements have the same effect on trade as direct export subsidies. The export credit programs for several major agricultural exporters are described. These programs are compared to OECD disciplines for export credit arrangements, and the consequences of extending these guidelines to agriculture are analysed. None of the programs discussed would be consistent with the OECD guidelines. Since export credit arrangements have many of the same characteristics as targeted export subsidies, the same analytical framework can be used to analyse these programs. However, it is necessary to determine implicit subsidy values for the program.

Keywords: export credit; export subsidy; price discrimination; WTO

1. Introduction

Export credit arrangements are typical components of export sales. Broadly defined, an export credit arrangement arises whenever a foreign buyer of an exported good or service is allowed to defer the payment. Typically, financial institutions handle most of the financing associated with export credit arrangements. However, government involvement comes in the form of providing guarantees or insurance on the financial transactions, subsidising interest rates, or making direct credits or financing available.

Both direct export subsidies and export credits can be used to develop new markets and to compete in existing markets. A direct export subsidy provides an explicit price subsidy to either the exporting or importing agent, lowering the price of the traded good. Government-sponsored export credit arrangements typically result in loan conditions that are better than those offered by the market, thus reducing the importer's cost of financing and possibly resulting in increased trade. Hence, either export credit arrangements or direct export subsidies can be used to benefit a particular exporter at the expense of its competitors.

The use of officially sponsored export credits has declined from a peak in the early 1990s as the former Soviet Union has effectively left the export credit market. The Asian financial crisis renewed the use of officially sponsored export credit arrangements. For instance, during the 1997-98 crop year the Canadian Wheat Board (CWB) offered \$250 million in credit to Indonesia and a \$35 million credit package to South Korea. In 1998 approximately 15 percent of U.S. wheat exports, on a volume basis, were sold under export credit arrangements. In the same year the CWB sold approximately 7 percent, on a value basis, of its wheat, durum, feed and malting barley exports on a credit basis.

To date, most subsidisation of sales to international agricultural markets involves direct export subsidies (e.g., European Union's export restitution system or the U.S. Export Enhancement Program). However, the Uruguay Round Agreement on Agriculture (URAA) has introduced disciplines on the use of export subsidies. Concern has been raised that export credits can be used as a method to circumvent the export subsidy commitments of the URAA.

This paper addresses the question of whether export credit guarantees have the same effect on trade as direct export subsidies. Should these credit arrangements be disciplined in the same manner as direct export subsidies? The second section of the paper describes the World Trade Organisation (WTO) export subsidy disciplines and other arrangements affecting export credits. The third section describes the major agricultural export credit programs for a number of major agricultural exporters. The fourth section describes the effects of direct export subsidies. The fifth section examines how export credits influence trade. Together, the fourth and fifth sections address the question of whether officially sponsored export credit program guarantees have the same effect on trade as direct export subsidies have. The sixth section examines the consequences of extending the Organisation for Economic Co-operation and Development (OECD) export credit disciplines to agriculture. The seventh section provides concluding comments.

2. WTO and Other Arrangements

Export credits can be used to make the terms of the sale more attractive than the terms provided by a competitor. This is why the WTO disciplines the provision of officially supported export credits. For industrial products, the provision of export credits is disciplined by the Agreement on Subsidies and Countervailing Measures (SCM). The SCM prohibits export subsidies, including “the provision by governments ... of export credit guarantee or insurance programmes ... at premium rates, which are inadequate to cover the long-term operating costs and losses of the programmes” (SCM Annex I paragraph j) and subsidised interest rates (SCM Annex I paragraph k). However, an export credit practice will not be considered an export subsidy if the export credit arrangement is in compliance with the OECD’s Arrangement on Guidelines for Officially Supported Export Credits (the “Arrangement”).

The “Arrangement” (OECD, 1998) places limits on the terms and conditions under which export credits can be provided. It applies to export credits with a repayment term of two years or more. The “Arrangement” (i) lays down maximum repayment periods; (ii) establishes minimum interest rates thereby limiting their use as a vehicle for subsidy; (iii) restricts coverage to a maximum of 85 percent of the export contract value; and (iv) establishes minimum premium benchmarks. These requirements are discussed in more detail in section 6, where specific agriculture credit programs are examined in the context of whether they would comply with the OECD “Arrangement.”

As with other WTO disciplines, agricultural commodity export credit programs are provided with special treatment. Agricultural export credit arrangements are exempted from the disciplines of the SCM and are excluded from the OECD “Arrangement.” The provision of direct agricultural export subsidies is governed by the rules and country commitments of the Agreement on Agriculture. Article 10, “Prevention of Circumvention of Export Subsidy Commitments,” paragraph 2, commits members to work towards an international agreement on disciplines for export credits, export guarantees and export credit insurance programs. A set of negotiations on an arrangement covering export credits for agricultural products was initiated by the OECD but to date no agreement has been reached.

3. Major Agricultural Export Credit Programs

United States

The United States has several programs that provide export credit guarantees for agricultural products (FAS Summary of Program Activities, 1999). The main credit guarantee programs are the General Service Management programs, GSM-102 and GSM-103, which

both underwrite private financing of U.S. agricultural product exports. The programs are operated by the U.S. Department of Agriculture's Commodity Credit Corporation (USDA CCC). GSM-102 is used to guarantee short-term credit of three years or less from U.S. banks at commercial rates. GSM-103 is used to guarantee credit for between three and ten years at commercial interest rates. The General Service Management export credit guarantees cover 98 percent of the port value plus a portion of the accrued interest which is not to exceed 55 percent for GSM-102 and not to exceed 80 percent for GSM-103. Interest rates charged under these programs are the prime rate or a variant of the London Interbank Offer Rate (LIBOR). These interest rates are lower than those that would be charged without the credit guarantee, because the exporters assume less risk.

Exporters are charged a premium for the credit guarantee. These fees range from 0.15 to 0.67 percent of the guaranteed value of exports under GSM-102, to 1.5 to 2.67 percent under GSM-103.

Congress determines the maximum amount of credit exposure allowed for GSM-102 and 103, and the USDA establishes recommendations for country allocations of credit guarantees. The U.S. government allots \$5.7 billion annually. In the fiscal year 1999, GSM-102 was allocated US \$5.1 billion while registrations totalled US \$3 billion. GSM-103 was allocated US \$377 million while registrations totalled US \$44.2 million.

The United States also offers the Supplier Credit Guarantee Program (SCGP), which provides short-term credit (180 days or less) directly to buyers.

The Public Law 480 (P.L. 480) program was established in 1954 from a combination of credit and aid programs. Unlike most other aid programs, P.L. 480 includes both direct aid and concessional financing. Title I of P.L. 480 was authorised for credit sales to foreign countries with payments received in foreign currency. Title I now contains provisions for debt forgiveness, and concessional sales for those countries which have the ability to repay.

Canada

Canada provides guaranteed credit through the Department of Finance and the Export Development Corporation (EDC). The Minister of Finance guarantees credit sales of grains under the Credit Grain Sales Program (CGSP) and the Agri-Food Credit Facility (ACF). The CGSP guarantees wheat and barley sales by the CWB. The ACF guarantee covers both CWB grains and other agri-food commodities.

Under the EDC programs, exporters may assign their foreign receivables to a Canadian bank so that cash is paid when the sale is made. The Canadian bank is then responsible for collecting the payment. The EDC programs provide cover to the lending institutions. The EDC provides short-term (typically under 180 days) guarantees for both agricultural and non-agricultural exports. Coverage under the EDC programs varies from 90 to 95 percent

of the principal and interest. The EDC charges a risk-based fee to exporters for their services. The value of business support provided in 1997 by the EDC was worth \$286 billion.

Under the Credit Grain Sales Program, the CWB finances credit sales at market interest rates. Financing is arranged through Canadian chartered banks for maturities of 6 to 36 months. Credit lines are guaranteed in full by the Canadian government. Credit-guaranteed sales are only made to importers who have obtained a sovereign guarantee from their government. The CWB is not charged a fee when it uses this program. Likewise, no fee is required for importers participating in the program, but a down payment, which varies with the credit risk of the importer, is required. On March 31, 1999 approximately \$6.7 billion was recorded as a receivable under the Credit Grain Sales Program.

A second program, the Agri-Food Credit Facility, offers credit sales to non-sovereign importers. The CWB is not charged a fee for this program, but it does assume a portion of the risk depending on the length of the credit term. Guarantees range from 98 percent for loans of less than one year, to 92 percent for terms of between two and three years. In 1998, approximately \$23.8 million was due from foreign customers under the CWB's portion of this program.

Australia

The Export Finance and Insurance Corporation (EFIC) offers guarantees on credit sales made on a commercial basis. Terms for EFIC insurance are up to three years. EFIC charges a premium for its insurance and requires that exporters carry a portion of the risk. The exporter's portion of the risk is 20 percent in most cases. Premium rates vary according to the risk of the transaction and range between 2 and 3 percent.

4. Effects of Direct Export Subsidies

The use of industrial export subsidies is strictly forbidden by the WTO (developing country exports are excepted). Agriculture provides an exception to this stricture and existing export subsidies are permissible under the URAA. Nonetheless, agricultural export subsidies are disciplined and subject to reduction commitments. Why are export subsidies viewed so negatively while the WTO will tolerate domestic production subsidies? The reason is that in the market of the country providing the export subsidy, producer and consumer prices are raised by the export subsidy; this rise, in turn, increases production and decreases consumption (see the technical annex for details). As a result, exports from the subsidising country increase. Prices in the rest of the world decrease, so that consumption increases and production decreases. The effects on trade of an export subsidy exceed the effects of an equal domestic production subsidy. A production subsidy increases domestic producer prices but leaves consumer prices unchanged. As a result,

domestic production will increase but the subsidy does not affect domestic consumption (unless the increased production is sufficient to depress world prices).

5. How Do Export Credits Influence Trade, and Are They Export Subsidies?

The guarantee removes from the lender any risk that the borrowing enterprise might default on its loan. In effect, the loan guarantee transfers the risk of non-repayment from the private sector credit supplier to the agency providing the guarantee. When an exporter has a better credit rating than a prospective importer, the exporter may offer the importer a more favourable interest rate than is otherwise available to the importer. Therefore the private lender will not have to impose as large a risk premium and the importer will face a lower cost for buying the commodity in question.

The face value of credit guarantees is often used as a measure of the size of the program, but this approach estimates neither the program's costs nor its effects on trade. The problem of finding the subsidy value of the credit guarantee has been addressed by a number of authors (Barichello and Verammen, 1994; Baron, 1983; Raynauld, 1992; and Hyberg et al., 1995). The extension of the credit guarantee, by reducing risks to the lender, makes it possible for the importer to borrow at less than the true interest cost. Therefore the credit guarantee provides an implicit interest rate subsidy. All the studies noted above have the common element of measuring implicit interest rate subsidies as a function of the difference between the interest rate adopted by the credit agency and a reference market interest rate.¹ The question that remains is: What is the appropriate reference interest rate? This rate should correspond to the actuarially fair rate of interest associated with expected potential default by the borrower in question. An actuarially fair rate of interest ensures that the present value of the expected sum of payments for the recipient country just equals the cash value of the commodity at the time of delivery. If there is no subsidy, then an actuarially fair interest rate would be applied.

The effect of an interest rate subsidy can be converted into a price discount or price subsidy. The price faced by the borrowing country on a credit sale should be higher than the price paid by a cash customer. This difference should account for the opportunity cost of funds and the risk associated with the borrower. If these costs are not accounted for, there is an export subsidy. The price discount is measured by the proportion of the true unit export value that the importer pays (see Baron, 1983, p. 148).

Once the interest rate subsidy can be put into terms of price subsidy, the economist's tools of excess supply and excess demand can be applied to determine the impact on prices and quantities traded (see the technical annex). Traditionally economists model an export subsidy as an outward shift in the excess supply function, which lowers world prices,

increases the price in the subsidising country, depresses prices elsewhere, and increases trade flows. The effect of an export credit guarantee is different. In this case the terms of the guarantee are specific to a particular market, so the effect of the price subsidy is targeted to a specific market. Targeted export subsidies, unlike general export subsidies, increase prices in more than just the subsidising country. The prices (consumer and producer) in all non-targeted markets increase while the price in the targeted market declines. The difference between these two prices is equal to the export subsidy (see the technical annex, figure A.3). The relative magnitude of the import demand elasticities (that is, the responsiveness of quantity demanded to price changes) in the different markets determines how much of the subsidy translates into higher prices in non-targeted markets and lower prices in targeted markets. If the principles of price discrimination are followed, prices in the most inelastic markets (non-responsive markets) rise more than prices in elastic markets fall.² Several authors (Abbott, Paarlberg and Sharples, 1987; Skully, 1992; and Vercammen, 1998) have drawn comparisons between price discrimination and targeted export subsidies. With targeted export subsidies the effects on third-country exporters need not be negative, as they are in the case of general export subsidies. Export revenues for a third-country exporter may increase if a sufficient portion of its sales are to non-targeted markets and if prices in these markets increase more than prices in targeted markets are depressed.

In addition to the implicit interest rate subsidy, export credit agencies also often do not charge the exporter the full insurance cost of guaranteeing the credit sale, so there is an insurance premium subsidy as well. The effects of premium subsidisation are more straightforward to model than those for the targeted effects of the interest rate subsidies. The premium subsidy translates into higher domestic prices in the subsidising market. Hence, the effect is much like a general export subsidy, where prices fall in all markets but the one where the subsidy originates. This effect alone makes all third-country exporters worse off.

6. Consequences of Extending the OECD “Arrangement” to Agriculture

Export credit programs will be discussed in the next round of negotiations for the Agreement on Agriculture. One possible discipline for agricultural export credit programs is to extend the rules for industrial products to the agriculture sector. This implies that the OECD “Arrangement” could be applied to agricultural products. The most important conditions of the OECD “Arrangement” are that (i) minimum interest rates should be established; (ii) cash payments are at least 15 percent of the value of the export sale; (iii) a maximum repayment period should be recognised; and (iv) minimum premium bench-

marks should be followed. Canadian and U.S. agricultural export credit programs are next judged by whether they comply with these criteria. Each of these conditions is considered in turn below.

Minimum Interest Rates

The minimum interest rates for the OECD “Arrangement” are defined as relevant Commercial Interest Reference Rates (CIRR). These rates are established according to the principle that the reference rates represent commercial rates in the domestic market of the currency concerned. The CIRR rates are to be set 1 percent above a base rate. The base rates are three-year government bond yields for loans with terms up to five years, five-year government bond yields for loans with terms up to eight and one-half years, and seven-year government bond yields for loans up to ten years. The interest rates charged for the Canadian CGSP and AFC programs, and for the U.S. GSM-102 and GSM-103 programs, should comply with this provision because they are based on commercial interest rates, which should exceed the CIRR minimum.

Down Payments

The OECD “Arrangement” requires cash payments of 15 percent of the export value at or before the starting point of the credit transaction. The U.S. programs do not comply with this down payment requirement. Neither Canada’s CGSP nor its ACF has a legal requirement for a cash down payment. However, the willingness of the buyer to make a cash down payment is part of the overall risk analysis required for a credit application. Dahl et al. claim that the down payment for programs run through the CWB is typically 10 to 15 percent of the export sale.

Maximum Repayment Terms

An automatic classification system was introduced into the OECD “Arrangement” to determine maximum repayment terms based on per capita GNP figures, so that the longest repayment terms are available only to the poorest countries. The OECD “Arrangement” classifies countries into two categories. For Category I countries the repayment term is five years.³ For Category II countries the maximum repayment term is ten years. The Canadian programs are under three years, so they comply with this requirement. GSM-102 also complies with this requirement, since the loan period is less than three years. GSM-103 may present a problem if the loan is provided to a Category I country for a period from five to ten years.

Minimum Premiums

The OECD “Arrangement” provides guidance for establishing minimum premium benchmarks. A number of elements of country risk assessment are to be considered: an importer

Table 1 Terms and Conditions of Export Credit Programs of Major Exporters

Country	Entity Extending Credit	Maximum Credit Terms	Coverage	Down Payment	Interest Rate Subsidy	Premiums
OECD Arrangement		5 and 10 years		15 %	CIRR rate	Premium Benchmarks
United States	GSM - 102	3 years	98% + up to 55% of interest	none	none	0.15-0.67 %
	GSM - 103	10 years	98% + up to 80% of interest	none	none	1.5-2.67%
Canada	CGSP	3 years	100%	varies with credit risk	none	none
	ACF	3 years	92-98%	varies with credit risk	none	none
	EDC	under 180 days	90-95%	varies with credit risk	none	market based
Australia	EFIC	3 years +	100%	none	none	0.2-2.67%

moratorium on repayment, political risks, exchange rate risk, war, natural disasters, etc. Risks are to be scored according to quantitative risk models. The scoring results in importing countries being classified into seven risk categories. The premium-setting guidelines are consistent with the obligation under the rules of the WTO that premium fees should be adequate to cover long-term operating costs and losses. The premium-guidance benchmarks (known as the Knaepen Package) were not approved until 1997 and the package did not become effective until April 1999. Thus, at present, many industrial product credit arrangements may not yet comply with the “Arrangement.”

In Canada the Export Development Corporation sets premiums based on private market pricing references such as option pricing models. Therefore EDC premiums should comply with the OECD requirements for premium setting. The CGSP and ACF programs, which the CWB uses for its export credit sales, do not assess a premium rate. In the United States GSM-102 assesses premium rates of 0.15 to 0.67 percent of the guaranteed value of export sales. The GSM-103 program assesses a premium of 1.5 to 2.67 percent of the guaranteed value of export sales.

While the Canadian CGSP and ACF programs do not even assess a premium for the

guarantee, it is very unlikely that the U.S. General Services Management export credit guarantee programs would comply with the risk assessment procedures described in the OECD “Arrangement.”

In summary, if the major agriculture credit programs were subject to the OECD “Arrangement” some changes would be required. In particular, guiding principles for setting minimum risk-based premiums would be required. As well, several programs would require down payment provisions. Table 1 summarises the important features of some of the major agricultural export credit programs.

7. Concluding Comments on Export Credit Disciplines

Export credits have many of the same characteristics as direct export subsidies. This is not to say that inferences about the distorting effects of credit programs can be drawn by the common practice of simply examining the face value of the credit guarantee. Detecting distortions requires relatively complex methods to determine the implicit subsidy associated with the risk reduction implied by the program. This implicit subsidy can then be used to determine a unit-export subsidy equivalent for the program. Given this information, the same analytical framework as is used for analysing direct export subsidies can be used to measure the trade impact of export credit programs.

Beyond measuring the impact of the program, can the subsidy equivalent be used to discipline the provision of export credits? One possible avenue would be to measure the subsidy equivalents for supported export credit programs and establish an upper limit for the subsidy equivalents. This process would be similar to the disciplines on export subsidies in the Agreement on Agriculture. This course of action does not recommend itself because export credits for industrial products are regulated in a different manner. Furthermore, export credit programs are primarily for sales to developing countries, where fully functioning credit markets may not exist. Hence, it is recognised that, unlike direct export subsidies, export credits can play a useful role in international trade. The development of subsidy equivalents may nonetheless prove to be a useful tool to monitor the use of export credits.

Agricultural export credit programs are not covered by the disciplines of the OECD Export Credit “Arrangement.” If these programs were to be subject to the “Arrangement,” then changes to these programs would be required.

Are the disciplines of the OECD “Arrangement” sufficient? The current minimum interest rates, the CIRRs, are minimum interest rates at which the lending agency can borrow (long-term government bond rates), but they do not reflect the rate at which importers would have to pay in international capital markets. An arbitrary mark-up of 1 percent above a government-borrowing rate does not reflect the risks associated with the potential default

of the borrower. Furthermore, the guidelines for establishing minimum risk premiums are somewhat arbitrary and not based on modern risk management techniques such as option pricing. These minimum premiums probably do not reflect an actuarially fair risk premium that recovers the full cost of insurance. The OECD "Arrangement" has only just begun to apply minimum premium rates. The motivation for this discipline was the fact that export credit agencies were incurring long-run losses. Drummond shows that the net cash flow of export credit agencies was negative every year between 1990 and 1995. The new premium disciplines should help to reduce long-term losses. Whether the minimum premium rates get around the subsidisation problem remains to be seen. What continues to be a problem for industrial products should be doubly a concern for agricultural products, which are not disciplined at all.

To be consistent with the WTO's current distinction of permitting production subsidies while prohibiting export subsidies, the WTO probably should prohibit subsidised export credit arrangements and encourage credit programs that do not discriminate between domestic and foreign transactions. However, from a more pragmatic perspective, it is unlikely that governments will give up official support of export credit programs. The provision of export credits and export credit guarantees, across all sectors, is too prevalent for a groundswell of support to develop for the elimination these programs. Furthermore, government-backed export credit is sometimes justified as responding to market imperfections. These imperfections are only vaguely defined. The reasons that private risk markets may not fully develop include political risk and commercial risks to do with international trade. Commercial risks include differences in legal systems between countries, which would inhibit the repossession of assets that could be used as collateral. Other problems include information asymmetries between countries, which prevent the development of insurance markets. The final justification is that developing countries have poorly developed credit markets. The issue of development will always be tied to the provision of export credits. This is an issue that will not go away in any future round of WTO negotiations where developing countries play a significant role. The implications for developing countries of extending the OECD "Arrangement" to agriculture probably would be minor.

Although export credit arrangements, at least in theory, should be disciplined in the same manner as direct export subsidies, there is little chance of this happening. Agricultural export credit programs are currently not subject to discipline. These programs need to be brought into the WTO fold of disciplines by applying equal treatment for both industrial and agricultural products. The OECD "Arrangement" would be a positive first step.

Endnotes:

1. The subsidy value is determined by taking the difference between the payment for borrowing privately and present values of both the principal and interest payments made by the credit agency. The discount rate is the interest rate which the importer would have had to pay on international markets.
2. Third degree price discrimination requires three necessary conditions (1) no arbitrage opportunities, (2) different demand elasticities between markets, and (3) the ability to exercise market power (i.e., set prices above marginal costs). If these conditions are present the firm can increase revenues, and hence profits, by re-allocating sales from more elastic markets to more inelastic markets. The decreased prices in elastic markets are more than compensated for by increased sales. Decreased sales in inelastic markets are more than compensated for by increased prices
3. In certain instances, with prior notification to the OCED, the repayment term can be extended to eight and one-half years.

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The technical annex to this paper, pages 79-82, is available as a separate document.

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