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Targeting Australian AgriculturalPolicies for Trade Liberalization

B.G. Johnston

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Abstract

The Australian Government has recently taken steps to reduce assistance levels in its economy. This paper reviews the levels of assistance prevailing in the agricultural sector in the mid-1980's and discusses how the recent reform initiatives have reduced them. The implications of multilateral liberalization of agricultural policies for Australian agriculture are also considered.

Note

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Summary

The Australian Government, in its own right and as part of the Cairns Group, has argued strongly in the Uruguay Round of multilateral trade negotiations for a move to freer trade in agricultural commodities. This means dismantling or substantially changing the domestic policies of a number of major players in world agricultural trade, notably the United States, the EC, and Japan.

The Australian Government unilaterally has taken steps to reduce assistance levels in the Australian economy consistent with the aims of the General Agreement on Tariffs and Trade (GATT) negotiations. The levels of assistance to the agricultural sector in Australia have been reduced from those prevailing in the mid-1980's, in part due to improvements in world agricultural commodity prices in the past few years and in part due to recent policy reforms initiated by the Australian Government. The major policy reforms have been in the domestic pricing of wheat, dairy products, eggs, and sugar where reforms have been directed at reducing the disparity between domestic and export prices caused by home-price consumption pricing arrangements.

In the past, some assistance to the agricultural sector has been given to offset the effects of assistance available elsewhere in the economy. Assistance to manufacturing acts as a tax on the export-competing sectors of the economy, and recent policy initiatives (such as replacing tariffs with bounties) have been aimed at addressing this explicitly. For this reason, the "effective rate of assistance" (ERA) measure is preferred to the "producer subsidy equivalent" (PSE) as a means of quantifying the levels of assistance provided to different industries within the economy. The ERA takes into account the direct effect of assistance elsewhere in the economy on the industry concerned, whereas the PSE does not. It is, therefore, a more complete measure of relative assistance levels. Many agricultural industries have shown modest reduction in their ERA's during the 1985-88 period, although some industries (rice, dried fruit, and tobacco) have shown increases.

The price effects from freer trade in agricultural commodities are potentially very substantial. Elimination of all existing policies of the industrial market economies could increase world agricultural prices by an average of 20 percent from their 1986 real levels. Removal of government assistance in the EC and the United States could make the greatest contribution to improving world prices.

The national incomes of the industrial market economies are improved overall by trade liberalization, although the benefits and costs of removing policies are unevenly spread among different groups. Taxpayers' costs are lowered dramatically, while producer and consumer groups gain or lose, depending on the specific policy mix in each country. Trade liberalization would probably lead to more stable world prices for agricultural commodities as well.

The improvements in world prices that would accompany the removal of trade-distorting domestic policies in the EC, Japan, the United States, and other countries would flow directly to Australia's producers and stimulate production and exports in the farm sector. The analysis indicates that the agricultural trade balance for Australia could be increased by over two-thirds of the 1986/87 level if the industrial market economies fully liberalized their agricultural policies. In short, Australian agriculture has much to gain from a successful conclusion to the current GATT negotiations.

Targeting Australian Agricultural Policies for Trade Liberalization

B.G. Johnston

Introduction

The Australian Government, both in its own right and as part of the Cairns Group, has announced its intention to support proposals that result in substantial trade liberalization in the current round of multilateral trade negotiations (10, 11).[1] The agricultural proposals are far-reaching, involving the phasing out of all quantitative barriers to trade in agricultural products; the elimination of export subsidies, variable levies, and minimum import prices; the binding of all tariffs at low or zero levels; and the rewriting of the GATT rules to reflect this.

The Australian Government also announced in May 1988 a set of policy initiatives designed to reduce the level of government support to agriculture and to manufacturing (3). These initiatives, which include the phased reduction in manufacturing tariffs and reduced disparities in rates of assistance between industries, will go a long way to fulfilling some of the obligations that may be required of Australia during the current round of multilateral trade negotiations.

Assistance to agriculture under the Cairns Group proposals would be limited to structural adjustment measures that do not negatively affect trade; nondistorting measures to stimulate domestic consumption; noncommodity specific aid for research, extension, education, and other government services; and disaster relief and humanitarian aid. Finally, direct income support decoupled from production and marketing would be allowed. In effect, the proposal aims to shift assistance to agriculture away from trade-distorting to trade-neutral measures of assistance.

This report reviews the types of assistance previously provided to the Australian agricultural sector, focusing on the policy instruments used to provide that assistance and on the changes required to fulfil the Australian Government's commitment under the Cairns Group proposals. The Australian Government has already taken substantial steps to reduce assistance in the agricultural sector in recent years, and any remaining obligations under a GATT agreement as envisaged by the Cairns Group would be relatively minor. The report also briefly examines the

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[1] Underscored numbers in parentheses refer to items cited in the References.

implications of multilateral trade reform, as envisaged by some participants in the current GATT round, for Australian agriculture.

Government Intervention in the Agricultural Sector

Prior to the recent initiatives introduced by the Australian Government, agriculture was the recipient of relatively higher levels of assistance. There were four major reasons central to the provision of such assistance and the resulting policy interventions. The first relates to the highly variable nature of production and prices in the Australian agricultural sector. The most important factor shaping Australian farm policy in the 200 years since settlement has been the instability of prices and weather, causing large fluctuations in farmers' incomes according to Lloyd (17, p. 357). This instability created a demand for policies that stabilized farm incomes and protected producers against the vagaries of international markets.

The second major influence on agricultural policy in the post-war period has been the desire to compensate the agricultural sector for some of the costs arising from protection provided to the manufacturing sector. Protection of the manufacturing sector has raised costs to farmers and this has been used to justify some assistance to agriculture (17, pp. 60-363).

The third major factor shaping agricultural policy has been the sharing of power between the Federal and state governments under the Australian constitution. This had led to a number of agricultural policies that rely on joint legislation for their constitutional validity. Dairy policy is a case in point.

Fourth, government involvement in legislation to provide for the collective marketing of Australian agricultural products has been significant. In the early 1980's, 11 marketing boards operated under Commonwealth Government statutes and more than 50 under state government legislation (25). These institutions are to a large extent the result of the methods chosen by agricultural producers and governments to increase or stabilize prices. Many marketing boards have undergone radical changes in their methods of operation in recent years to improve efficiency and, in many cases, to reduce their reliance on government support.

Recent reforms, discussed in more detail below, have included the deregulation of the domestic wheat marketing arrangements, reductions in the level of price underwriting for wheat, removal of supplementary support arrangements for dairy, replacement of the import embargo for sugar with tariffs, deregulation of the egg industry in New South Wales, and moves to deregulate rice in the same state. The statutory marketing arrangements for deciduous canning fruit have been abolished. These policy reforms have all acted to reduce the levels of assistance to agriculture in the Australian economy, compared with levels prevailing in the early 1980's.

Policies and Patterns of Assistance Prevailing in the Mid-1980's

Table 1 provides a summary of the major components of the effective rate of assistance calculations for agriculture as provided by the Industries Assistance Commission (12, 13), during the

Table 1--Effective rates of assistance to agriculture

Commodity	1985-86	1986-87	1987-88
		Percent	
Extensive grazing:			
Beef	6	6	7
Wool	2	2	1
Sheep meat	3	2	1
Extensive cropping:			
Wheat	4	25	0
Barley	0	0	0
Oats	1	1	-1
Maize	-2	-2	-2
Sorghum	1	-1	-1
Oilseeds	-2	-3	-1
Intensive livestock:			
Pigs	-11	-1	2
Poultry	-4	-1	6
Eggs	53	70	21
Dairying	159	168	150
Manufacturing milk	80	145	83
Market milk	250	209	155
Honey	1	0	3
Extensive irrigation and high rainfall crops:			
Sugar	46	27	26
Cotton	1	5	5
Rice	26	53	40
Horticulture:			
Apples and pears	-2	-1	0
Dried vine fruits	33	36	57
Wine grapes	33	38	39
Citrus	32	34	18
Deciduous canning fruits	59	72	na
Tobacco	49	23	71
Tomatoes	-2	-2	-2
Potatoes	15	15	4
Other vegetables	-1	-1	-1

na = Not available. Sources: (12, 13).

period 1985-86 to 1987-88. Primary industry assistance in the Australian economy has also been reviewed (18).

A number of features of past Australian agricultural assistance policies stand out from this table. First, the major broadacre (extensive) cropping and grazing industries (for example, wheat, sheep, beef, and coarse grains) have been lightly assisted and this continues to be the case. These industries comprise the vast bulk of Australian agricultural production, contributing over 70 percent of the gross value of production in most years. Second, a small group of industries has been relatively highly assisted, namely dairy, tobacco, eggs, sugar, and a number of fruit industries. Agricultural industries have been effectively taxed by assistance elsewhere in the economy. In some industries, such taxes have been large enough to more than offset any positive assistance measures. Such is the case for the pig, poultrymeat, and oilseed industries, the first two largely by assistance to wheat and the third by assistance to manufacturing, which increases the purchased input costs in all agricultural industries. These latter costs have often been used as a justification for providing countervailing assistance to the agricultural sector. The types of policies historically used to assist the farm sector have been extremely diverse, reflecting major differences in the economic and political environment from industry to industry.

Policies prevailing in the mid-1980's can be grouped into four types (see tables 2-5): price support, export assistance, input subsidies, and support for services and taxation.

To facilitate comparisons with other countries, assistance is measured using the producer subsidy equivalent (PSE) measure in tables 2-5 (see 19 and 8 for details).

Price support policies were designed to support producer prices above market-clearing levels, usually by driving a wedge between producer and consumer prices. A wide variety of mechanisms were used to achieve this (see table 2). These forms of support provided by far the greatest proportion of assistance to the sector, providing 75 percent of the measured PSE during the 1982-86 period.

Support for exports was not large, providing about 5 percent of the measured total PSE support to the sector over the same period (table 3). Input subsidies, which lower the cost to producers of farm inputs, were the second most significant form of producer support (table 4), although, at 10 percent of total support, they were not nearly as significant as price supports. The government was also involved in providing a wide variety of services to the sector (table 5), including support for research and development, extension services, rural adjustment, disaster relief, and communication services. Finally, the government provided various taxation concessions to the sector to encourage investment and offset the unstable income streams in the sector.

Table 2--Australian price support policies

Policy instrument	Brief description	Commodity affected	1984-86 average value to producers	
			Value	PSE
			Mil. dol.	Pct.
Home consumption pricing	Domestic consumers are taxed and average returns to the industry are increased	Wheat	19.6	8
		Sugar	65.6	15
		Rice	7.8	12
		Fruits[1]	64.0	3
		Eggs[1]	64.0	3
Domestic price support	Domestic consumers are taxed to support producers	Market milk	254.0	51
		Tobacco[1]	17.0	27
Equalization of export returns	Domestic consumers are taxed to equalize export returns among manufacturers	Manufacturing milk products	127.1	22
Underwriting of export prices	Guaranteed minimum prices for exports	Wheat	109.0	8
Tariffs	Tariff on imports	Cotton	5.7	2
Total			695.0	75[2]

[1]Data pertains to 1984/85 only. [2]Percentage of total agricultural support.
Sources: (9, 13).

Table 3--Australian export assistance

Policy instrument	Brief description	Commodity affected	1984-86 average value to producers	
			Value	PSE
			Mil. dol.	Pct.
Export inspection	Part of the costs of export inspection are met by the government	Beef	29.9	1
		Sheepmeat	7.7	1
		Wheat	5.0	<1
		Barley	1.0	<1
		Rice	<1	<1
		Oilseeds and other grain	--	<1
		Fruit	--	<1
Export incentives	Grants to encourage exports among small- to medium-sized firms	Beef and veal	0	<1
		Dairy	.2	<1
		Wheat	0	<1
		Barley	.4	<1
		Oilseeds and other grains	--	<1
		Fruits	--	<1
Total			45.0	5[1]

-- = Not available. [1]Percentage of total agricultural support.
Sources: (9, 13).

Table 4--Australian input subsidies

Policy instrument	Brief description	Commodity affected	1984-86 average value to producers	
			Value	PSE
			Mil. dol.	Pct.
Fertilizer subsidy	Subsidies on manufacture and use of fertilizers	Beef and veal	<19.0	<1
		Sheepmeat	1.2	<1
		Dairy	.4	<1
		Wheat	9.8	<1
		Barley	3.0	<1
		Rice	.1	<1
		Sugar	1.5	<1
		Cotton	.3	<1
		Oilseeds and other grains	--	<1
Interest rate subsidy	Concessional credit for farm development	Beef and veal	1.0	<1
		Sheepmeat	.3	<1
		Dairy	.2	<1
		Wheat	2.0	<1
		Barley	.3	<1
		Rice	.1	<1
		Sugar	.4	<1
		Cotton	.2	<1
		Oilseeds and other grains	--	<1
Disease eradication	Mainly tuberculosis and brucellosis	Beef and veal	13.9	<1
		Dairy	1.9	<1
Carcass classification	Scheme to improve meat description and classification	Beef and veal	.7	<1
Irrigation water	Government subsidy of water supply	Rice Wheat Barley Oilseeds and other grains Beef and veal	Not quantified. Government budget outlay in 1986/87 is $45 million	
Other programs	Diesel fuel rebates and bounties on inputs	Various	Not quantified. Designed to offset protection provided to manufacturing	
Total			91	10[1]

-- = Not available.

[1]Percentage of total agricultural support.

Sources: (9, 13).

Table 5--Australian Government support for services and taxation incentives

Policy instrument	Brief description	Commodity affected	1984-86 average value to producers: Value	PSE
			Mil. dol.	Pct.
Research	Government for R&D	Beef and veal	16	<1
		Sheepmeat	4	<1
		Dairy	7	<1
		Wheat	24	<1
		Barley	4	<1
		Rice	1	<1
		Sugar	1	<1
		Cotton	1	<1
Extension subsidy	Government support for extension programs	Most	Not quantified but similar amounts to that provided for research and development	
Rural adjustment	Government support for adjustment of farm size and debts	Most	Federal budget support was approximately $35 million in 1986/87	
Natural disaster relief	Government support of farmers during droughts, floods	Most extensive industries	Federal budget support approximately $1 million in 1986/87	
Communications systems	Government support of telephone and satellite communications systems	Mostly extensive industries, particularly in remote locations	Federal budget support not listed separately	
Taxation concessions	Tax averaging and other concessions	Most	Federal budget support not listed separately	
Total			94	10[1]

[1]Percentage of total agricultural support.

Sources: (9, 13).

Several features of the pattern of assistance prevailing in the mid-1980's stand out. While the overall level of producer assistance was relatively low (an aggregate PSE of about 9 percent in 1987-88), the level of assistance varied considerably among industries. Some industries were relatively highly assisted (dairy and tobacco), while others faced negative rates of assistance (oats and maize). The main factor determining these differences was the existence of a number of price support schemes that raised prices to producers via various policy instruments (table 2). These instruments included home-consumption pricing (wheat, sugar, rice, some fruits, and eggs), tariffs (cotton), production quotas (market milk and tobacco), equalization of export returns (manufacturing milk products), and an underwriting scheme for wheat. The level of assistance provided by these arrangements varied considerably among commodities, with the highest PSE's being for market milk and tobacco, estimated at 51 percent, and the lowest being cotton at 2 percent (see 8 for details).

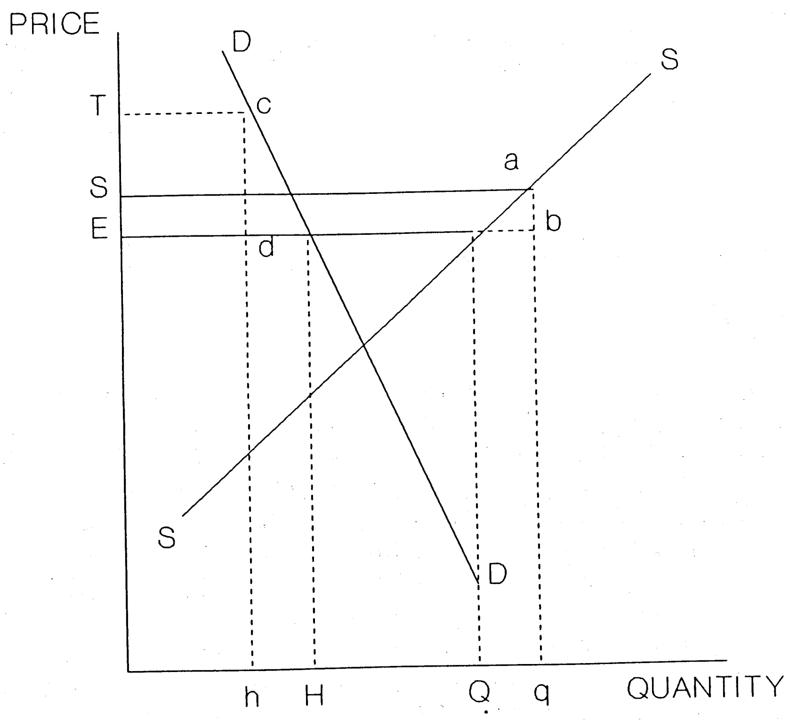
Home-consumption pricing schemes are a particularly trade-distorting form of intervention since they simultaneously increase production and decrease domestic consumption. The net effect is increased exports over the free market solution. This is illustrated in figure 1, following Sieper's explanation (23).

Let DD and SS represent the domestic demand and supply curves for the commodity. With no intervention and a world market price of E, quantity Q will be produced, H will be consumed, and Q-H will be exported. Assume for the moment that the country has no influence on world prices. A tax on domestic consumption is introduced that raises the domestic price from E to T. As a result, domestic consumption falls from H to h.

The tax revenue from the consumption tax is transferred to producers. As a result, they receive a higher average price S.

This causes them to expand output from Q to q. The net result of these transfers is that domestic consumption decreased and domestic supply increased, thereby increasing exports to q-h accordingly. The area of the rectangle TCdE (the cost borne by

Figure 1
Domestic supply and demand



domestic consumers) is equal to area SabE, the transfer to producers. For the case where the small-country assumption does not hold, the effect of the additional exports arising from the scheme would be to lower world prices and introduce trade distortions into world markets. These policies would clearly be early targets for trade liberalization negotiations.

Recent Policy Reforms in Australian Agriculture

In May 1988, the Government announced a number of major reforms to Australian agricultural policies. These reforms, some of which are being phased in over a number of years, will have the net effect of lowering agricultural assistance even further. The situation is reviewed by industry in the following sections.

Extensive Broadacre Cropping and Grazing Industries

These industries comprise the beef, wool, sheepmeat, wheat, barley, oilseeds, and other grain crops grown on large-scale farms that rely largely on natural rainfall. Farms of this type in southern regions largely comprise mixed-enterprise farms. In the north, most are beef specialists grazing cattle in extensive open range conditions.

Among the extensive industries, only wheat received any direct price or income support during 1984-86 (table 2). This was provided through the home-consumption pricing of wheat sold on the domestic market and through a scheme that underwrote export prices during major downturns in world prices.

Domestic Pricing of Wheat. The Australian Wheat Board (AWB) is a statutory marketing board, established under Federal legislation. It is charged with the responsibility of "securing, developing, and maintaining markets for wheat and maximizing the return to growers from the marketing of wheat" (7). Until July 1, 1989, it controlled sales on the domestic market by setting prices for wheat of different grades. The board used this power to maintain domestic prices above export prices. However, it is debatable, because of the additional services provided to domestic millers, whether this resulted in a net transfer to growers or not, as noted by the Industries Assistance Commission (IAC) in its recent report (14).

Wheat Industry Stabilization. Price underwriting in the form of a guaranteed minimum price (GMP) applies to wheat. The GMP is declared each season and should the gross per-unit payments to growers from pool sales fall below the GMP, then the Federal Government pays the difference under the Wheat Marketing Act. The underwriting provisions were triggered for the first time in the 1986-87 season when a payment of $167.4 million was made. This amounts to approximately A$10.00 per ton if wheat production is 16.8 million tons.

Following the tabling of the IAC's final report on the wheat industry (14), the Government announced changes to the wheat industry legislation. In particular, domestic sales were deregulated beginning July 1, 1989, and changes to the levels of underwriting were announced. Government liabilities under underwriting were restricted to 90 percent of the estimated pool return for wheat that season, declining to 80 percent by July 1, 1993. Additional flexibility in payment options was provided, as well as allowing the AWB to overcome state regulations that impeded the efficient storing, handling, transporting, and marketing of wheat traded overseas or interstate (13).

Subsidized Export Inspection Costs. A range of extensively produced commodities receive some export assistance from the Government through the subsidization of export inspection costs (table 3). The responsibility for export inspection rests with the Federal Export Inspection Service (EIS). During 1984-86, about 50 percent of the costs of operating the EIS were paid by growers from levies, the balance provided by the Government. The largest component of these costs applied to meat inspection, principally beef. In all cases, the level of PSE support via this instrument is small, less than 1 percent. The Government in its May 1988 statement increased the proportion of these costs to be borne by growers to 60 percent (3). It would be a relatively simple matter to further increase the proportion of these costs to be borne by growers or place the service onto a full-cost recovery basis. The proportion of costs, if any, to be borne by the Government would depend on whether there are any significant public benefits to be gained from a Government-provided service, relative to a fully commercial service.

Intensive Livestock Industries

Two industries were particularly highly assisted by farm policies in the mid-1980's: dairy and eggs. Poultry and pork production received almost no assistance to outputs, and had been penalized by the domestic pricing arrangements for wheat (table 1). The honey industry was also lightly protected throughout the period.

Dairy Policies. The dairy industry is among the most highly protected of Australia's rural industries. The industry suffered considerably from the loss of the United Kingdom market following British accession to the EC in the early 1970's and production trended downward until the early 1980's. Production has since increased somewhat, but is still well below the levels achieved during the late 1960's.

The industry operates under two distinct sets of policies, one relating to the market (fresh) milk sector and the other relating to manufactured milk products.

Market Milk. In all states, the market milk sector is highly regulated from production through distribution, with product prices kept significantly above manufacturing milk prices by restrictions on entry and the discouragement of interstate trade in fresh milk. This has been achieved by the use of health regulations and voluntary agreements between states. The net effect of these arrangements is to raise prices to domestic consumers.

There are no significant health reasons why milk cannot be traded interstate and some limited trade has recently taken place following a successful challenge under the Australian constitution. This is a trend that can be expected to intensify over the next few years, and it will inevitably lead to a discounting of the market milk premium over time. The premium was estimated to provide market milk producers with an average annual transfer from consumers of about A$254 million over the period 1984-86 (table 2). Whether all this premium would be dissipated by increased competition depends on the differential cost of producing milk all year round, compared with seasonal manufacturing production, and the additional transport costs of moving milk over longer distances.

Manufacturing Milk. Manufacturing milk production was previously supported through a price equalization and stabilization scheme. In July 1986, new marketing arrangements were introduced aimed at reducing the level of assistance to the sector and exposing the industry more directly to market forces. A previous levy on the consumption of manufactured products consumed on the domestic market has been replaced by an "all-milk" levy. The pooling of export returns among manufacturers is being phased out and the underwriting of export returns by the Government is being replaced by market support payments from the all-milk levy.

The new scheme, like the previous one, is administered by the Australian Dairy Corporation, a statutory marketing organization established under complementary Federal and state legislation. The scheme is estimated to have resulted in an average transfer of A$143 million from consumers to producers over the period 1984-86 (table 2).

Egg Production. Until recently, egg production and marketing were the subject of a stabilization arrangement also established under complementary Federal and state legislation. This allowed state marketing boards to control the domestic pricing and distribution of eggs, while the Federal agency purchased surplus eggs for export. Because imports of eggs have been banned due to disease considerations, the state boards have been able to use discriminatory pricing, and the prices received for eggs sold on the domestic market have considerably exceeded those available on export markets. A levy on the number of birds held by growers is used to equalize returns to growers from domestic and export returns. In mid-1987, the Federal Government ended its participation in the scheme. It is now administered solely by the state authorities. The scheme is estimated to have involved an average annual transfer from consumers to producers of A$25 million over the period 1984-85 (table 2).

More recently, both the New South Wales and Victorian governments have moved to introduce more competition in their egg industries. While the Victorian government has only introduced partial deregulation, the New South Wales government has moved to completely deregulate the industry, purchasing all existing quota and removing the legislative constraints to entry and exit from the industry. This is expected to lead to lower prices for consumers and the exit of high-cost producers from the industry.

Intensive Cropping Industries

The intensive cropping industries include fruit, sugar, rice, and cotton. Assistance levels vary widely. A number of the fruit industries with effective rates of assistance exceeded the 30-percent level of 1985-86 (table 1). Sugar and rice have received moderate levels of support through home-price consumption schemes, which discriminate in price between the domestic and export market. Cotton benefits slightly from a tariff.

<u>Fruits</u>. A wide variety of fruits are grown in Australia, reflecting the climatic diversity of the country. For most fruits, some form of government regulation exists to control production and marketing. The form of market intervention varies from fruit to fruit.

While the domestic marketing of apples and pears is not controlled, exports come under the control of the Apple and Pear Board. The board, largely financed by a levy on growers, also receives Federal and state funds to underwrite prices on "at risk" markets in Europe. These transfers are, however, relatively small, amounting to less than A$6 million annually during 1984-86. So the effective rate of assistance was also low, less than 5 percent in 1984-85 and negative (-2 percent) in 1985-86 and (-1 percent) in 1986-87 (table 1).

In contrast, support for citrus and wine grapes has been relatively high (table 1). Both rely on tariffs for protection. In the case of citrus, via a complicated scheme of tariff exemption, processors importing concentrated orange juice are exempt from import duty, provided they use a proportion of domestically squeezed juice. Fresh citrus fruit is sold freely on the domestic market in competition with imported fruit, while citrus juice is subject to a 30-percent tariff. The May 1988 policy package announced by the Government includes a reduction in the citrus tariff from 30 to 15 percent by July 1, 1992.

Australia is a major producer of dried vine fruits and a major world exporter. Domestic production and marketing are highly regulated by state marketing boards. Complementary Federal and state legislation allows a levy on domestic sales to be used to equalize returns to growers from export and domestic sales and a tariff restricts imports. The 1988 policy package includes a phased decline in the tariff from 25 percent to 15 percent by 1992.

Deciduous canning fruit, which includes peaches, pears, and apricots, is assisted by a statutory marketing board, the Australian Canned Fruits Corporation, which acquires the crop, sets minimum prices in both domestic and export markets, and equalizes returns between sales on different markets. The corporation is able to price discriminate on the domestic market, resulting in a transfer from domestic consumers to producers. While the absolute value of this transfer is not large, estimated at A$2.6 million in 1984-85, it is quite substantial in effective assistance terms.

Sugar. The sugar industry is an export-oriented industry, mainly located in the state of Queensland. It has been tightly controlled in its development by Queensland state regulation. The Queensland legislation restricts the land on which cane can be grown and which mill the cane is to be delivered to and when. The Queensland Sugar Board acquires all the sugar produced and pays the mills for the sugar according to a strict formula based on that mill's allocation of quota. Using complementary Federal and state legislation under a series of agreements beginning in 1923, the Federal and Queensland governments allowed sales on the domestic market often at higher prices than can be received for sales on the export market. This price differential was maintained by a ban on imports. These arrangements resulted in substantial transfers from domestic consumers to producers, approximately A$60 million in 1984-85. It should be noted that in earlier years the arrangements resulted in transfers to consumers when world prices exceeded the domestic price.

Considerable scope exists to lower costs in the industry through more efficient growing, handling, transporting, and processing of the crop. Efficient adjustments of this sort are constrained by the web of state regulation pertaining to the industry (4). The 1988 policy package includes the replacement of the import embargo with tariffs on refined and raw sugar and their phased reduction to 15 percent by 1992.

Cotton. Cotton receives very little direct market support. It is grown under irrigation in New South Wales and Queensland using capital-intensive technology. Marketing is provided by cooperatives, some of which are grower-owned. Much of the crop is exported. The only protection to the industry is provided via a tariff on imports. This was estimated to provide a transfer from domestic consumers to producers of about A$6 million in 1984-85.

Rice. Rice is also grown in New South Wales and Queensland, mostly under irrigation. The industry is highly regulated with area quotas in Queensland and restrictions on where rice can be grown in New South Wales. All rice grown must be vested in the marketing organizations in each state. Domestic prices have consistently been higher than export prices due to discriminatory pricing, assisted by a tariff on imports. As the tariff has been reduced in recent years, so has the size of the transfer from consumers to producers. In 1984-85, this transfer amounted to just over A$6 million.

The rice industry is highly regulated, and efficient adjustment is being impeded by a range of state regulations that restrict the area and ownership of rice farms and encourage the inefficient use of water (5).

In late 1987, the IAC reported to the Government the results of its inquiry into whether assistance should be provided to the industry. The commission did not consider additional assistance to the industry necessary and recommended that the Commonwealth Government approach the state governments with a view to improving the efficiency of water use in the industry and removing controls over production, landownership, farm size, and the regions where rice can be grown. It also drew attention to the restrictive nature of the marketing of rice. The New South Wales government has since announced a program of substantial deregulation of the industry.

Implications of Multilateral Trade Liberalization

The Uruguay Round of the multilateral trade negotiations began in September 1986 with a meeting at Punta del Este of the trade ministers from the countries that are signatories to the GATT. The round is due for completion in December 1990. The GATT, which has as its objective the achievement of a free system of global trade, has achieved only limited success since its formation in 1945. Progress in agricultural products has been particularly poor because agriculture has been excluded from the more stringent rules of trade laid down for other sectors. A major reason for agriculture's exclusion is the special waiver granted to the United States in 1955, which excluded U.S. domestic farm legislation from GATT rules. Other countries, notably the European Community (EC) and Japan, have used this loophole to exclude their own domestic programs from GATT scrutiny.

A major objective of the Cairns Group of countries in the current round of negotiations is to remove these special provisions applying to agriculture and bring agricultural trade within the trade disciplines applying to other products (2).

The trade-distorting effects of domestic agricultural policies are now well documented with studies by Tyers and Anderson (24), Anderson and Tyers (1), the OECD (19), the International Institute of Applied Systems Analysis (16), Roningen, Sullivan, and Wainio (22), and Roningen and Dixit (21). Research has also been undertaken to look at the economywide effects of liberalization using general equilibrium modeling (6).

The SWOPSIM (Static World Policy Simulation) model is a modeling framework developed to allow the effects of domestic agricultural policies on world trade to be evaluated (20). It has been applied to analyzing the effects of trade liberalization in developed countries (21, 22) and in the Pacific Basin (26). The recent results of the liberalization of agricultural policies in the SWOPSIM framework for developed and developing countries were also reported at the International Agricultural Trade Research Consortium meeting "Bringing Agriculture into the GATT" (15).

Some important conclusions from this analysis are:

- Elimination of all existing agricultural policies of the industrial market economies would increase world agricultural prices by an average of 20 percent.

- Removal of government assistance policies in the EC and the United States makes the greatest contribution to improving world prices.

- The national income of the industrial market economies is improved considerably by the removal of agricultural assistance, although the benefits and costs of removing policies are unevenly spread among different groups. Taxpayer costs are lowered dramatically, while producer and consumer groups gain or lose, depending on the specific policy mix in each country.

- Producer income in the highly assisted industries is lowered by the removal of assistance policies.

- For developing countries, the picture is mixed. The developing exporters would gain through higher world prices and the market opportunities created by the withdrawal of some of the highly assisted industrial market economies from export markets in which they currently compete. Food-importing countries will face higher food-importing costs, although the higher prices should stimulate their own agricultural sectors.

Implications for Australia

For a country like Australia, which is heavily dependent on export markets for agricultural products, and where the rates of assistance are generally low, the gains from multilateral trade liberalization are potentially large. The recent policy reforms initiated by the Australian Government have lowered assistance levels from their mid-1980s levels, and, apart from a limited range of agricultural products Australian assistance levels are now low.

The improvement in world prices that would accompany the removal of trade-distorting domestic farm policies in the EC, Japan, and the United States would flow directly to Australian producers and stimulate production and exports in the farm sector.

Analysis by Roningen and Dixit (21) indicates that these gains could be quite substantial. Using the SWOPSIM model, Roningen and Dixit estimate that the agricultural trade balance for Australia could increase by just over US$3 billion. This represents an increase of just over two-thirds of the 1986/87 agricultural trade earnings (21). Most of this gain would come from ruminant meats (US$1.16 billion) and wheat (US$0.9 billion), with also significant gains for dairy products (US$0.6 billion). Nonruminant meats and sugar could gain about US$0.2 billion each. Coarse grains would gain about US$0.1 billion.

The essential conclusion of this analysis is that Australian agriculture has much to gain from trade liberalization in agricultural markets. Given the fact that most Australian agriculture producers already face world prices for their commodities, any improvements in price arising from trade liberalization flow immediately to producers, stimulating production and exports. The recent policy reforms implemented by the Australian Government have made these linkages more direct for a number of industries that previously enjoyed some insulation from world prices. The essence of trade reform is the reform of domestic policies.

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