EXPORT PRICING STRATEGIES AND WORLD GRAIN MARKETS

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INTRODUCTION

When discussing export pricing strategies, several features of the world grain trade must be kept firmly in mind. Export prices for grains are at an all-time low. Real prices for commodities such as wheat are below those observed during the Great Depression. For many this is difficult to comprehend given that only five years ago, grain prices were at near record levels. The world grain economy and thus international markets are greatly influenced by government policies. Grain markets around the world are becoming less efficient as more and more non-market forces enter the arena. Since Professor Johnson's book, Agriculture in Disarray, the degree of resource misallocation has risen dramatically. It is now often stated that production has become uncoupled from consumption. The prices producers receive bear no relationship to prices end users pay. The notion that grain markets function freely, and that prices are determined by the interplay of supply and demand is unfounded. In fact, agricultural production and trade are moving further away from a free market world.

There are many key players whose actions determine market outcomes. These participants include the United States, the European Economic Community (EC), the Soviet Union, and China.

Other participants include, but to a much smaller degree, Australia, Argentina, and Canada.

The pricing of grains in world markets involves the U.S. directly. Many observers fail to realize that export prices received by countries such as Australia, Canada, and Argentina have closely followed the U.S. loan rate. The target price and the loan rate are the two major cornerstones of American agricultural grain policy. The target price is that received by farmers for a percentage of their crop produced if they participate in the farm program. It is well above the loan rate. Exporters such as Australia compete at the loan rate which is essentially a price floor for world grain exports. In the 1981 U.S. Farm Bill, there was a spread of roughly $1 per bushel for wheat. In the 1985 U.S. Farm Bill, the spread became much wider (roughly $2 per bushel). From the U.S.' perspective, the loan rate set under the 1981 Farm Bill was too high as the U.S. began to accumulate excessive grain stocks. Other major exporters were able to prevent their accumulation of stocks by pricing competitively at or below the U.S. loan rate. In the passing of the 1985, the U.S. decided to increase its competitiveness by lowering the loan rate (or floor price) for grain by roughly $1 per bushel below the loan rate set in 1981. When the U.S. dropped the loan rate in the 1985 Farm Bill, the effects on Australia, Canada, and Argentina were felt almost immediately. In order to compete, these countries also had to drop their export asking prices. This move on the part of the U.S. was

aimed primarily at increasing market share for both wheat and coarse grains. The U.S.' market during the 1980's had slipped below 40 percent in wheat, largely at the expense of an increase in export market share by the EC. Since the passing of the 1985 Farm Bill, wheat exporters were dealt an additional blow - the Export Enhancement Program (EEP) implemented by the U.S. Exporters competing with the U.S. have to price competitively in export markets somewhere at or slightly below the loan rate when competing, for example, in markets such as Japan. However, in other markets such as the Soviet Union and China, wheat exporters such as Canada have to compete head on with the EEP, in addition to the low prices set under the loan rate. Under the EEP the U.S. is allowed to export wheat to countries such as the Soviet Union at substantially below the loan rate. A significant subsidy is already given grain importers when competing for sales at the loan rate. The subsidy even becomes larger when the EEP comes into play. Many of the sales under the EEP are priced well below the loan rate which puts U.S. export wheat in many cases, well below $2 per bushel/U.S.

COUNTRY DEVELOPMENTS

There have been significant production increases around the world for the major grains. The significant increases in production have come about in regions such as China and the EC. Especially for wheat, the rate of increase in production in the U.S., Canada, and Australia has been relatively slow. China was

the world's largest producer of wheat in 1985. Since 1960, production has increased four fold based mainly on yield increases. Growth in yields in production has been particularly rapid since 1980. Part of this increase has been due to policy reform, which has allowed regional comparative advantage to work.

There has been a major structural change in the world market for grain since 1960, partly due to the phenomenal growth in production in the EC. Grain production roughly doubled from about 80 mmt to 160 mmt in a five year period. Because of slow population growth and moderately rising incomes, production has far exceeded consumption growth and domestic utilization, resulting in the EC switching from a large importer of 25 mmt in 1961, to a net exporter of both wheat and coarse grains in 1985 of over 15 mmt. This major structural change came about because of a doubling of yields which was due to improved efficiency, stimulated in the main, by high rising stable internal support prices, under the Common Agricultural Policy in Europe. Some observers conclude that it is quite remarkable that consumption growth has been significant and has been able to absorb a part of the increase in production. In other words, if there had not been accompanying growth in world consumption, world stocks would be significantly higher than current levels.

Two of the major importers have been, and likely will continue to be China and the Soviet Union. Their import levels have not only been large, but they have also been very erratic, fluctuating widely from year to year. Despite China's phenomenal

growth in production, imports have been sizable. For example, it is quite conceivable that for the 1987/88 crop year, China may well import in excess of 13 mmt of wheat. The Soviet Union will continue to be the largest single importer of grain. If sales continue at the pace set from August 1987 through December 1987, grain imports (including soybeans and its products) for the Soviet Union could well approach any records previously set. The Soviet Union is not only importing sizable amounts of wheat and feed grains, they are also importing record quantities of soybeans and soybean meal from the U.S.

MARKET STRUCTURE, CONDUCT, AND PERFORMANCE

Governments play a dominant role in the international pricing of grains. On the import side, over 90 percent of the transactions are carried out by state agencies. Major importers such as the Soviet Union, China, and Japan use state trading agencies when buying grain from abroad. On the export side, two of the large exporters - Australia and Canada, use marketing boards where the Australian and Canadian Wheat Boards are the sole exporters of wheat from these countries. The remaining large exporter is the U.S., where the multi-national grain companies are heavily involved. In the U.S., while local co-operatives are dominant at grain collection points internally, once the grain moves into export position, by far the largest handlers are the multi-nationals.

There has been considerable debate as to who has market

power in the world grain markets. Certain theories and empirical evidence suggest that Canada and the U.S. dominate, and perform a price leadership role; more recently these two have been joined by Australia. These three countries form a triopoly pricing arrangement. However these results have been challenged, and suggestions have been made that exporters do not hold market power; rather importers exert market power through the application of optimal tarriff strategies. In this context it has been argued that Japan, EC, and other regions actually can gain from pursuing tariff and protectionist policies at the expense of exporters. It would be somewhat difficult to support the notion that exporters have market power, when in fact they are selling grain substantially below costs of production. For example, in the U.S. and Canada it has been argued that variable costs of production run somewhere in the neighborhood of between $2.75 and $3.00 per bushel. When fixed costs are included, (even excluding land payments) costs run somewhere in the neighborhood of at least $4.00 per bushel for wheat. Under EEP, importers are buying wheat at less than $1.50 per bushel which clearly implies that importers are getting an exceptional deal in world grain markets. If exporting countries have market power, surely the prices they charge should be at least high enough to cover variable costs, and certainly in the long-run they should be sufficient to be at least equal to or above fixed costs of production. Exporters at the present time are pursuing a give-away policy in that government treasuries are used to pay

importers to buy grain.

How well the markets perform is extremely difficult to determine, since it is contraversial as to what bench mark to use when evaluating the efficiency of grain markets. Generally, efficient markets imply market clearing prices were supply and demand are equated. In the world grain market, this is far from reality. The prices paid to producers, the prices paid by consumers, the prices paid by importers, and the prices paid to producers in importing countries bear no resemblance to what a freely functioning world grain market would generate. It is because of the massive distortions in the world grain markets, that authors have concluded that agriculture is in disarray.

There can be little dispute that the multi-national grain companies are very efficient at marketing grain if one defines efficiency as the least cost solution in moving grain from the farm level through to importer destinations. Likewise, given the government policy base of various countries, the Canadian and Australian Wheat Boards also price efficiently. (However, many of the transactions once the grain moves into export ports is carried out by many actors excluding the Wheat Boards. For example, in Canada the Canadian Wheat Board essentially prices wheat on a f.o.b (free on board) basis at various ports in Canada). In a broader context however, one has to question how efficiently agricultural markets work when, in fact, agriculture around the world is in disarray. Given that there is no resemblance between producer prices and consumer prices, these

markets, by definition, can not be efficient. They are efficient given the role of government policy, but they are not efficient from the standard text book definition, where markets are deemed to be efficient when price is the outcome of the interplay of supply and demand forces. Also it is important to keep in mind that in countries such as the U.S., the pricing of grain by the multi-nationals is done with government policy in the background. For example, the EEP where the subsidy is paid by the U.S. Government allows the multi-national companies to expand export sales by essentially dropping the price of grain to importers. As a result, any evaluation of the efficiency, for example, of the U.S. grain markets, has to interface government with the private marketing firms.

In summary, regardless of how efficient the private sector is and/or the grain boards who deal in international markets, the aggregate export market where government is also considered has to be inefficient. To highlight this, in an efficient market context, it would be impossible for production to take place over several years, where prices from the market place are insufficient to cover production costs. In many parts of the world, producer prices cover at least variable costs of production only because of government price supports where governments highly subsidize production. In this context, grain thus becomes an excellent buy for major importers, since it is the importer who is essentially receiving part of the benefits government programs put in place by major exporters. It is now

generally true that producers receive their income from governments, rather than from the market place.

THE GENERAL AGREEMENT ON TARIFFS AND TRADE (GATT)

It is in recognition that agriculture contains many distortions and market do not function efficiently, that agriculture is to receive a high profile under GATT. Countries such as Canada, Australia, and Argentina are pushing for a significant reduction in both tariff and non-tariff barriers on a world-wide level. In other words, there appears to be an attempt to bring production in line with consumption, and thus eliminate or greatly reduce the massive government subsidies to agriculture. If these reductions were to come about, it is interesting to speculate about the future of grain exports and grain prices. Would, for example, export prices for Australia rise sharply if trade liberalization occurred? There have been numerous studies which have addressed this topic, and likewise there have been many answers provided to this question. It is generally felt that trade liberalization would not result in export price increases greater than 25 percent, thus trade liberalization by itself would not bring grain prices back up to the highs of the 1980s. However, it is my view that additional work is required to determine the impact of trade liberalization on various grain exporting nations. Some argue that the 25 percent increase as a result of trade liberalization is too optimistic. Several authors conclude, for example, that if the

U.S. were to remove its agricultural programs, that production could even increase above current levels. Also, there is significant debate as to whether or not production in the EC would decline drastically if prices were lowered. Subsidies and higher prices resulted in a substantial production increase historically, but the results imply that once production is in place, it is extremely difficult for it to be curtailed. That is, supply response from higher prices has a different dynamics attached to it than supply response when prices drop.

One has to keep in mind that in the case of trade liberalization, there would be production, consumption, and trade equilibrium values established. Without government support, producers have to obtain prices from the market place sufficient to cover both variable and fixed costs in the long-run. Currently, export prices are insufficient to cover long-run production costs in most, if not all of the major trading regions. It is for this reason that governments in countries such as Canada have provided deficiency payments in response to the lowering of the loan rate for the 1985 Farm Bill. Who are the supporters of GATT? Certainly, countries such as Canada and Australia support GATT reform. However, whether specific interest groups support GATT reform or not is an interesting question. It may be extremely difficult for a country such as the U.S. to negotiate agricultural trade liberalization. To effectively accomplish trade liberalization and to substantially reduce government intervention in agriculture, it is necessary to

have support from major farm constituents. In the U.S., strong lobbying groups exist among grain producers. Grain producers are currently receiving from the Government a much higher price for their grain, at least on part of their crop, than they would receive from the market under liberalized trade. The U.S. would be affected by trade liberalization more through a reduction in treasury expenditures for agriculture, than in terms of enhancing producer incomes. It may even be that producers will receive less from trade liberalization accompanied by government support removal, than had U.S. government expenditures on agriculture remained in place. Additional research is needed to determine the net gains from trade liberalization and in addition, who would lose and who would gain from agricultural reform. It is inconceivable that all major groups in the absence of any form of compensation, in countries such as the U.S. could gain from trade liberalization through GATT reform. From a society's standpoint, there is little doubt that GATT reform could bring about overall net welfare gains. However, the difficult issue remains in terms of who the losers are, and if the losers are agricultural producers, than the negotiatiors will have an extremely difficult time in making major changes through the GATT process.

FUTURE DIRECTIONS

It seems ironic that nations such as the U.S., Canada, and Australia have to subsidize grain exports to the point where the revenues received from sales are insufficient to cover costs of

production. This is much more the case for the U.S. and Canada than it is for Australia, since in response to the 1985 Farm Bill, the Australian government has been reluctant to introduce deficiency payments. If exporters could be charged for export dumping (this happens very often in other industries) sizable duties would be introduced. This would cause prices to increase significantly since, for the dumping duties to be removed, costs of production would have to be covered from export sales. However, obviously there are few players in place to bring anti-dumping cases against major grain exporters, since importers realize that they are getting a good deal by buying grain below the costs of production. At the same time, their producers are receiving prices well above world market levels, and therefore there is no incentive on the part of either governments or producers to bring dumping actions against grain exporters. If dumping charges could be levied, then clearly a cooperative solution would have to be worked out in the world grain trade.

When grain markets are price inelastic on the demand side, which is the case for wheat (which largely results because of the numerous government policies world-wide which in essence protect agriculture from world market events), then total revenue from export sales is increased by increasing prices, not lowering prices. In the 1985 Farm Bill, the loan rate, along with export prices were lowered, not raised. In addition, the EEP was introduced as an additional subsidy, and targeted to certain countries including the Soviet Union and China. To many

economists, this appears incredible, especially when target prices were essentially kept high in order to help out producers. The motivation clearly was one where the U.S. wanted to increase market share. From an economic perspective, market share arguments are extremely weak, especially if an increase in market share is accompanied by a decrease in the total value of export sales. In a price inelastic market, once prices are dropped, quantities sold will increase, but total value of exports will drop. Also, in view of recent events, even though U.S. exports have increased, it is not necessarily because of price reductions. World-wide weather has also had a large impact on the grain markets and thus exports would have increased, even without price reductions.

In an aggregate context, when all the players are considered, including producers, fertilizer and chemical dealers, machine manufacturers, grain companies, and the like, it is fairly clear to understand why the 1985 Farm Bill was passed and why much of the same might be in store in the passing of the 1989 Farm Bill, unless prices rebound sharply. Producers want high prices, and thus are not necessarily interested about what free market prices would be since production has really nothing to do with world market supply and demand forces. In fact, U.S. producers would certainly be supportive of a policy where high prices could be supported and at the same time, acreage set-asides could be reduced. Considering input suppliers, they support a world where production is large since, with large

production, suppliers are able to sell the needed inputs to agriculture. Therefore, input suppliers generally encourage any government policy which is output increasing. Likewise, grain companies have a great deal at stake in moving large volumes of grain at whatever price, and in addition prefer price instability - especially in the case where information is important in the pricing of commodities. Multinational grain companies have no particular interest in the prices producers receive as long as prices are sufficient, whether from the market place or from the government, in generating production such that they can move large volumes of grain in the international market place. Of course in the background is Uncle Sam, who has to dish out the money in order to bring all of this about. In other words it has been Uncle Sam along with governments in other parts of the world which have allowed production to become uncoupled from consumption. As a result, given that producers gain from government programs and generally input suppliers and multinational grain companies gain, there is little support for substantially raising the U.S. loan rate. Producers would have little, if anything to gain, input suppliers would have very little to gain and clearly if exports were reduced, multinational grain companies would stand to lose. However, if the demand facing the U.S. is price inelastic, the government has a substantial amount to gain (and so do general tax payers) since expenditures on agriculture would be greatly reduced. However, in farm program designs, unfortunately the desire on the part of

the tax payers generally pays an insignificant role.

SHAPING THE 1989 FARM BILL

Certainly in shaping the 1989 US Farm Bill, policy makers will consider the above arguments where both the gainers and losers from various options are considered which includes the taxpayers. Also, hopefully they will not only use market share criteria as a guide. The basic criterion policy makers should use is that taught in economics, which is that policies should be pursued where substantial gains from trade accompany exports. Studies now have shown that even though the volume of agricultural trade is large, the gains from trade may be insignificant or actually negative. This result is due to the massive distortions in world agriculture. If the gains from trade criterion would be used, then certainly a different pricing strategy would emerge in the world grain markets. The U.S., Canada, Australia and other countries would use a cooperative strategy which could take many forms. In this strategy, prices would be raised (not lowered) thus, given the inelastic nature of demand, the total value from export sales would increase substantially. This may be the only course to take if in fact the U.S. is unsuccessful with the 1985 Farm Bill. If countries such as Canada and the EC are unwilling to yield to U.S. export subsidy pressures, the U.S. may have to rethink its agricultural policy. In a cooperative strategy, other countries would have to participate including Canada. This would include such programs

as soil conservation measures which Canada, at the moment, is seriously considering.

As a concluding comment, export cooperation does not imply cartels. In cartel theory, producers organize in an attempt to raise prices above free market equilibrium levels. In the world grain trade, hopefully cooperation could bring about prices which somewhat resemble competitive equilibrium levels. In addition, for those who argue that cartels don't work, cooperation to begin with as already stated, is not a cartel argument. In addition, the negative comments toward cooperative rather than competitive strategies suggest that the current situation is somewhat optimum. Surely, very few economists can support current world agricultural policies, and therefore if policy reform is to happen, suggestions have to be put forward on how to bring this about. Clearly if GATT were successful it would have achieved an export cooperation solution.

It seems questionable that people continue to argue that cooperation does not work and cartels are doomed to fail. There are, of course, exceptions in history which suggest that countries that have entered into a cartel did very well. I only have to sight, for example, the income generated by the oil cartel for Kuwait. The wealth generated for Kuwait was so large that, when invested, the interest generated from these investments made investments made around the world by Kuwait sufficient for the citizens of Kuwait to maintain an extremely high standard of living. This would be true even if world oil

prices dropped below current levels. In this argument one has to remember that it is not only current prices that are important, but it is also the high prices that existed during the cartel and the savings and investments these high prices and corresponding revenues generated. The issue of cartels and cooperation is raised largely to focus attention on the costs of the trade war that is going on in the world grain markets. Current pricing strategies on the part of exporters coupled with government policies in both exporting and importing nations, if continued, could reach insurmountable obstacles and an entire collapse of the world agricultural trading system.