Options for Supply Management in Canada with Trade Liberalization: Implications of Canada’s Dairy Sector

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Introduction

Supply management has been an important feature of Canadian agriculture for nearly four decades. Three main pillars support supply management marketing arrangements in Canada: 1) prices are determined by a cost of production formula; 2) production is limited to what the domestic market will consume at the cost-determined price; and 3) border measures are used to keep out less expensive foreign products. Until the formation of the WTO, Canada used GATT-legal import quotas to limit the quantity of foreign dairy products entering the Canadian market. During the Uruguay Round, Canada “tariffied” its import quotas by converting them to tariff rate quotas (TRQs).

The Uruguay Round Agreement did lay the groundwork for future trade liberalization efforts being pursued under the Doha Development Agenda (DDA) that began in 2001. The DDA will set the rules for international trade in agrifood products for at least the next 15 years (see Rude and Meilke, 2005 for a discussion of the DDA in relation to Canadian agriculture). We are of the opinion that at the end of the negotiations, over-quota tariffs will be lowered and minimum access commitments will be increased for all member countries. In our view, the most important question facing the industry and the government following the conclusion of the DDA is whether the current supply managed system should be realigned to be consistent with the new trade rules or if more fundamental changes should be undertaken to better position the industry in 2021 and beyond. If no action is taken to reform the supply managed industries, significant over-quota tariff cuts beginning in 2021

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could result in sharp decreases in domestic prices – declines that would be difficult to accommodate in a short time frame. However, if realignment of the industry began now, with a 15-year window for adjustment, the fear of falling off a cliff in 2021 can be greatly reduced.

This paper attempts to illustrate the kind of changes the DDA may require while focusing primarily on a number of options for adjustment that we believe would leave the industry better positioned to compete in 2021 and into the future. If the industry agrees that fundamental changes to the supply managed system are desirable following the DDA, then it is reasonable for governments to consider providing adjustment assistance. In light of this, we discuss the strengths and weaknesses of a number of ways the supply managed sectors could be reformed and the types of assistance that could be provided, with a focus on dairy.

What’s at Stake?

One pillar of supply management is a “made in Canada” price that is judged to provide a fair return to producers. This goal is accomplished by restricting the quantity of product that can be marketed to the quantity consumed at the predetermined price. However, because production is restricted to less than the quantity producers want to supply at the administered price, the “right-to-produce” takes on a value. In 2004, the aggregate value of marketing quota was C$24.8 billion representing 12.2 percent of non-quota total assets (C$203.5 billion) and 3.5 times the annual gross revenue (C$7 billion) from producing the supply managed commodities. Moreover, Figure 1 illustrates the particularly striking growth in quota values from 1981 to 2004, while farm cash receipts (FCR) show steady but not dramatic growth. Given the stability in consumption within the much larger dairy sector, growth in FCR is primarily due to steady increases in price. The quota values, however, are another matter. The nominal growth rate from 1981 to 1995 is a relatively large 6.4% per year, but from 1995 to 2004, the nominal growth rate jumps to 10% per year or annual growth of 8.1% in real terms.

The nearly C$25 billion in quota value represents a significant fraction of the wealth of producers of supply managed commodities, but also a significant cost of being in a position to produce these commodities, such as would be faced by a new entrant. For example, an Ontario milk producer with enough marketing quota to cover 100 cows has C$2.5 million invested in that quota. Any policy change that reduces the per unit price of quota, or reduces the quantity of marketing quota available is going to be opposed by producers of supply managed commodities. In addition, any change in border measures is almost certain to result in calls for compensation for any loss in marketing quota value. A related aspect is the division of this increased capital value into equity and debt. With such large increases in quota value, it is not surprising
that equity levels have also grown, particularly since 1995 and for large farms (sales greater than C$500,000). However, debt levels have grown even faster, more than doubling over the period for which data are available, from 1995-2002. In 2002, for these larger farms, the ratio of farm debt to non-quota equity exceeds one for Alberta, Ontario, and Quebec (1.1, 1.1, and 1.2, respectively).

**Figure 1:** Marketing quota values and cash receipts from supply managed commodities, 1981-2004

![Graph showing marketing quota values and cash receipts from supply managed commodities from 1981 to 2004.](image)


- **What the DDA Proposals Means for Canada’s Dairy Sector**

The Doha Round negotiations on agriculture have maintained the three pillars of the Uruguay Round: 1) reduced export competition; 2) reduced domestic support and 3) increased market access. Regarding export competition, DDA negotiators have agreed that all trade distorting forms of export competition will be eliminated by the end of 2013. This includes direct export subsidies as well as the subsidy elements of export credits and guarantees, food aid, and state trading enterprises. In the supply managed sector, reduced export competition only affects exports of dairy products. This pillar of DDA will necessitate finding new markets or uses of dairy products that otherwise would be exported, potentially pressuring the domestic marketplace.
For the supply managed dairy sector one element of a reduction in domestic support is a cap on product specific support. Such a cap will directly affect the administered prices for butter and skim milk powder and will bring about a change in the cost of production-based, open-ended pricing system currently used in the milk market. Essentially, the cap on product specific support means that dairy farmers, through their representatives, will need to negotiate prices with milk processors, as has often been the case in the poultry sector. This alone will likely keep milk prices from rising as rapidly as in the past.

In the DDA, the market access negotiations are where progress has been most difficult. Currently, access to the Canadian market for the supply managed commodities is controlled through the use of TRQs. DDA will affect Canada’s TRQs in two ways. First, minimum access commitments (MACs) are likely to be expressed as a percent of domestic consumption and increased over time. Second, tariffs will generally be reduced. However, countries will be able to self-select any product they want for sensitive treatment, but will be limited in the number of products that can be selected for sensitive status. Clearly, Canada is planning to specify its supply managed commodities as sensitive. However, just because a product has been selected for sensitive treatment does not mean it is exempt from tariff cuts. In fact, over-quota tariffs will have to be cut and minimum access commitments will need to be increased. Barichello et al. (2007) discuss the likely impacts of these changes and conclude that the major challenge the supply managed industries will face under the DDA will be increases in minimum access to five to ten percent of domestic consumption. Reductions in tariffs are not anticipated to have as serious consequences as increased minimum access.

**Options For Adjustment Assistance**

**The Debate over Assistance**

One explanation for the sharp increase in the value of marketing quota since 1995 is that quota buyers expect governments will compensate them for any loss in quota value resulting from policy changes. This outcome is not a foregone conclusion; in fact, it is unusual for governments to compensate producers for trade policy changes. Perhaps the strongest argument against providing assistance, even with significant cuts in future protection is that producers should have been aware of such risks when they purchased their marketing quota and, up to this point, they have enjoyed considerable benefits from owning it. The risks inherent in purchasing quota – that the policy regime may change – are well understood by buyers, and there is evidence this risk is built into the quota price. Even the Ontario milk producer who bought his entire marketing quota as recently as 1995 could sell it today for nearly three times what he paid for it. If the value of this individual’s quota
should drop by as much 25 percent as a result of the DDA, should Canadian taxpayers provide him with financial assistance for his partial loss in capital gains?

But, there is also the argument that government has a role to play in encouraging adjustment in order to lower farm prices. In fact, there are three Canadian examples of payments: payments made to Canadian farmers when the Western Grain Transportation Act was eliminated; transition assistance provided to grape growers in Ontario and British Columbia at the time the CUSTA was signed; and adjustment assistance provided to about 1000 Canadian tobacco producers so they would retire their basic production quota permanently. Examples of adjustment assistance or buyouts in other countries exist, such as sugar in the European Union, milk in Australia and Switzerland, and peanuts and tobacco in the United States. However, there are few, if any, examples of payments made to compensate producers for trade policy changes, although the dividing line between purely domestic and purely trade policy is often blurred. Most of the adjustment schemes also have the objective of facilitating adjustment in the industries affected to build a more competitive industry in the future.

However, if it is judged politically necessary to provide adjustment assistance, the next question should be what the important characteristics of the adjustment program are. This is considered in the following section of selected program options. Perhaps the biggest question is how much assistance should be provided? A full buyout of all producers of supply managed commodities would cost C$25 billion using 2004 quota values, and from the past 25 years of experience this cost is likely to grow over time. How should this figure be compared to the C$1.6 billion paid to Prairie grain farmers to cover about one-third of the benefits of the freight subsidy being removed? In comparison, Australian dairy reforms involved adjustment assistance that covered only three years of annual benefits of the old scheme.

**Assistance Based on the Book Value of Quota**

One option, in the family of options that use quota (capital) values as the basis for calculating assistance, is to tie payments not to the current market value of marketing quota, but rather to its book value. Financially, book value is typically treated as an asset’s original purchase value less depreciation. Here, because marketing quota does not depreciate in the conventional sense and rarely loses value, book value is taken as the original value of the purchased production quota. This approach to providing adjustment assistance explicitly focuses on losses in capital value as measured by original cost. It follows the argument that a producer who recently purchased quota at a high value, possibly still backed by debt, is deserving of greater assistance than a producer who bought the quota at a much lower value. This argument also reflects the view that the producer who bought the quota at a
low value has already received many years of benefits from his purchase.

This option can incorporate different rules. First, assistance can follow simply on the basis of the book value and each producer would be paid the purchase value of his quota. A key feature of this scheme is that capital gains would count for nothing in terms of adjustment assistance. An alternative rule, with a lower level of assistance, would be to take the proportional loss in current market value of quota and then apply this loss percentage to each individual's book value of his quota. One issue that could arise in administering this scheme at the individual level is that each producer may have a portfolio of quota vintages, with a different book value for each vintage. One could then pay assistance based on the full book value of each vintage for each producer, or on the percent change (decline) in the market value times the book value of each vintage, in order to reduce the government's financial obligation. Data on book values is likely available at an individual producer level from income tax records due to the deductibility of allowed depreciation on quota purchases. Clearly, some administrative burden is involved with such a scheme. But if these data are not available at reasonable cost, one could calculate the average book value for a region or a commodity subgroup and pay individuals on the basis of this average. Then all producers in each subgroup would receive the same per unit payment level (based on the average book value), but the total amount of assistance would differ according to the amount of quota held.

At least two issues arise when dealing with assistance based on book value. First, quota that was initially given to producers by the marketing board will not qualify for any assistance, as the book value is zero. Of course, producers who received their quota gratis had the benefit of higher prices without payment for all the years since that allocation, so they would not have been without an advantage. Second, as previously noted, this scheme does not provide any assistance for accumulated capital gains on the quota. Implicitly, this scheme assumes the goal of the supply management regime was to pay producers better prices with no obligation to provide for higher investment returns via capital gains on the right to produce (marketing quota).

**Australian Dairy Reform Model**

In 2000, the Australian dairy industry took an interesting approach to deregulation that provided real world evidence on another option for

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2 Canadian farmers are allowed to depreciate 50 percent of the value of quota purchases, although this is subject to recapture on the future sale of this quota.

3 An even simpler scheme is to choose an arbitrary date and to provide payments to producers who bought their quota since that date using the book value and the assistance rules already described, and no payments to those who purchased their quota prior to that date. Although this would reduce the financial exposure of the government, it would invite criticism for being unfair to the earlier purchasers.
government policy and assistance. These reforms featured a change in fluid milk pricing, where regulatory constraints on pricing were removed, combined with the elimination of most government subsidies. Several key features of the Australian reform model are important. First, the reforms were full and immediate, with the policy announcement made nine months before implementation. Second, the immediate reforms led to rapid declines (35-40 percent initially) in the price of fluid or non-seasonal milk (Harris 2005).

Third, an assistance scheme was devised to help replace producer’s income that was lost due to this deregulation. The focus of these reforms was on encouraging adjustment and not on providing equity-based income support, even though farmers were allowed to spend the payments in any way they chose. However, payments were targeted to where the larger losses occurred, namely in those regions and to those farms with heavy reliance on fluid milk production, as opposed to manufacturing milk production. The size of the payments were known in advance and scheduled to be paid quarterly over eight years, but financial market (bank) programs were offered to give farm recipients the present value of this income stream in a lump sum payment. The level of the total assistance payment was about US$150,000 per farm, which was judged to represent about three years of income losses due to the reforms. This was not a full “buyout” for the permanent losses incurred, but was considered to be an appropriate sum to finance the necessary adjustments.

Fourth, assistance payments were financed by a tax on consumers. There was no contribution from the National Treasury. Fluid milk consumers were judged to be a legitimate source of this funding because they would be the primary beneficiaries of the reforms, due to the subsequent fall in consumer fluid milk prices. The financing arrangement was a ten-year tax that meant consumer prices would actually fall by only one-half of the expected amount during those ten years, after which the full decline would be enjoyed. In other words, consumers benefited from the reform immediately but the decline in consumer prices was phased in over two periods, one-half to be experienced immediately and the other one-half after ten years.

If this approach was applied to the Canadian dairy industry, it would be administratively feasible. Due to the pooling procedures currently used, it is possible for producers to be paid a lower price for their product and for the pool to pay out a certain sum to cover the costs of the assistance scheme, with the total pool costs being recovered through appropriate pricing to consumers. One difference in Canada would be that this scheme would cover all milk products, not just fluid milk. The costs could be pro-rated across all product pools as an extra charge on the milk in that pool and the extent of the charge could be chosen, just as it was in the Australian case. However, unlike the Australian case, because all milk products enjoy an income boost due to current trade policies, the need for regional differentiation in Canada would be
less of an issue.

Compared to adjustment assistance schemes based on quota values, this scheme allows payments at less than the full value of the quota, or less than the full amount of the prospective income loss to be implemented more easily. This is important in the Canadian situation where the cost of making payments at full quota values would be C$25 billion. It may also be important if the current quota values contain an expectation that there will be payments to producers following trade reforms of the sort we have discussed. The government may not wish to finance these expectations, and so for this reason may wish to provide a lower level of payment. This approach also allows the assistance to be determined flexibly, independent of quota values. With this flexibility, payments may be tailored to each region and type of farmer as desired.

Due to this added flexibility, this kind of scheme would be cheaper than simply buying out quota. It also shifts the financial burden of this assistance to consumers and away from the government. However, the scheme could be adapted to allow for joint financing of these costs. Some of the costs could be covered by the government if they contributed some amount to the milk price pool.

In summary, the Australian scheme adds a number of different options to adjustment assistance policy, and in particular, it provides a scheme that is even more flexible than the options chosen in Australia might suggest. This type of reform can be designed to allow for virtually any level of payments, in any form and to any group; the timing of the payments can be readily chosen; the program can be paid for through any mix of consumer and government financing depending upon what is deemed as fair; and the reforms can involve variable timing of both the costs and the benefits.

The Two-Quota Option

If Canada anticipated that future international trade obligations would require the reduction of over-quota tariffs to relatively low levels, the Canadian government might wish to create a period of adjustment to assist producers in dealing with the approaching lower tariffs. This period of adjustment could assist farmers in making the necessary changes in their farm operations to respond to prices that might be considerably lower. As well, the government would be able to spread out over time any adjustment assistance it judges to be appropriate. Under such circumstances, a two-quota policy may be a useful option. This would be a voluntary scheme that would involve a gradual decline in domestic product prices to a level that would largely protect the domestic industry from imports and maintain the domestic market for Canadian producers. Alternatively, such a scheme might be useful once a trade agreement has been signed, in order to facilitate adjustment. In this...
latter situation, however, the length of the adjustment period would be dictated by the trade agreement and not by the choice of the Canadian government.

Producers would be given the choice of buying into such a scheme by selling (i.e., trading-in) their existing or “old” quota to a government agency while at the same time bidding for a new class of quota. Milk shipped under this new quota would receive a lower price than that received with the old quota. The scheme could be designed so that buying new quota would be similar to buying the right to sell on the old commercial export program that existed in some Canadian provinces prior to 2002. The two transactions – selling the old quota and buying the new quota – would be linked, as suggested by the word, trade-in. Producers wishing only to sell their existing quota could do so on existing quota exchanges as usual.

Given that this option would feature two different prices for the same product being sold only on the domestic market, it would involve pooling of the different returns. Consumers would face only the pooled price. The institutional framework of classified pricing that exists in the Canadian dairy sector would be consistent with such a pricing mechanism. The pricing would involve a schedule under which the price would gradually decline over time by whatever path the government chose. The choice of the final price could be tied to an anticipated (or agreed-upon) tariff level. If the expected tariff was 25-40 percent, the final domestic price would have to be below the world price plus the 25-40 percent tariff in order to keep out imports. Of course, tariffs would have to be set on an individual product basis and could differ across products.

The new quota would have a lower value than the existing quota due to the fact that milk shipped under it would receive a lower price. The determination of this price could be handled privately under an offer-to-buy mechanism whereby producers would make an offer for the new quota when selling their old quota to the government at some predetermined price (such as the prevailing market price on already established quota exchanges). Alternatively, farmers could provide both an offer-to-sell price for their old quota and a bid-to-buy price for the new quota. Given the ready alternative all producers face of selling old quota on the existing quota exchange, we would expect the offer price to be very close to the existing market price for old quota. Whether the transaction involves a predetermined old quota price set by the government, or an offer price made by producers, the key variable would be the difference between the bid and offer prices. This would represent the net return to the producer from engaging in the transaction.

To make this option voluntary and commercially feasible, there would have to be a government subsidy involved. An agency that bought old quota at high prices and exchanged this for new quota at lower prices would need a
subsidy to be viable. The amount of quota that could be purchased by this agency and replaced with new quota each year would depend on the level of subsidy or financing determined by the government. The size of the financial commitment would depend on the combination of the transition period desired or imposed by the trade agreement.

As the pooled milk price declines over time, consumption of dairy products would be higher than if no price changes took place. A net increase in consumption would prompt new quota to be added to the system. This could be distributed to new quota holders in the same way that new quota is handled presently – by a pro-rata increase to all (new) quota holders. This feature of the new quota (i.e., the possibility of increased allocations) would lead to a higher price than would otherwise prevail and it would increase the attractiveness of this scheme to would-be participants.

What are the attractions of such a scheme to the Canadian government? First, it does commit the government to an adjustment assistance package. In terms of advantages, it would allow for a graduated payment and the degree of graduation or phase-in would be decided by the government each period through its choice of how much old quota to buy. Second, by selling the new quota, there would be some revenue offset to reduce the net cost of the assistance payments. This may be a small offset, depending on the level of world prices and the tariff that is set, but its existence is good for the government nevertheless. On the negative side, subject to this offset, such a scheme does peg the assistance payments to the full value of the old quota. If the government wanted to pay only one-third or one-half of the current quota value, this would be difficult. A major disadvantage of this scheme is its cost to governments unless it is combined with a tax on the stock of old quota.

What would be the attractions of this scheme for producers? First, it would allow farmers who are willing to accept the proposed path of lower prices to continue in milk production while extracting a considerable proportion of their equity in old quota with the certainty of current quota prices. Second, the program is voluntary, so a farmer who did not want to consider operating under the lower priced market could continue with the current system. However, such a decision would be subject to many risks as future trade negotiations unfold, such as the loss of quota if minimum access levels were to rise or milk prices decline as a result of over-quota tariffs falling. Farmers who hold such a view might find this two-quota scheme to be quite attractive. Third, farmers would be able to trade in their old quota for new quota to whatever degree they wish. Finally, if the new quota was to be made available to new entrants, this would be seen as an additional attraction of such a scheme. Lower quota values, even if tied to lower milk prices, might make the industry accessible to some individuals who otherwise would not have the access to the capital needed to purchase old quota under the current system with its high quota prices.
As noted above, the scheme proposed here would not provide a retirement option for exiting farmers. That option would be available by selling old quota on the existing quota exchanges, as many farmers currently do.

**United States Examples: Tobacco and Peanut Buyouts**

Two US farm programs involving supply management elements – tobacco and peanuts – were ended or substantially changed in recent years and buyout options were made available. Given the similarities between these programs and supply management in Canada, they are quite relevant. These programs are similar to a full quota buyout, so we provide only a brief overview of their elements.

**Tobacco** The US tobacco program buyout was clean and complete – all government support programs and restrictions were permanently terminated. Following this reform, tobacco prices were expected to fall by 25-30 percent. Payments were made both to quota holders (not necessarily farmers) and tobacco growers (including quota renters who did not own quota). Payments were spread out evenly over ten years for both groups, although lump sum payments intermediated through financial institutions were available. The total cost of the buyout to these two groups was $9.6 billion, compared with $2 billion in tobacco sales in recent years. Finally, unlike most buyouts, the tobacco buyout was not financed by taxpayers but rather by assessments on tobacco manufacturers and importers. This is similar to the Australian dairy program where the government did not finance the buyout.

**Peanuts** Unlike tobacco, the peanut buyout was not clean and complete. Although quotas and locational growing restrictions were removed, “net” returns were expected to be similar for many farms due to the introduction of direct and countercyclical payments. Payments were made only to peanut quota holders. Peanut growers renting quota from quota owners still received government program payments and no longer needed to lease quota, therefore were not considered to require compensation payments. Buyout payments were spread out over five years.

**A Full Quota Buyout**

Another possible option for Canada would be to provide adjustment assistance at a level equal to the full market value of the domestic quota. Such a scheme would be easy to administer and politically attractive – some farm leaders are already arguing for this option. However, the downside of this option is the extreme cost of such an undertaking – estimated to be C$25 billion using 2004 data. Furthermore, if this option was to be taken only after the next trade agreement forces Canada to do so, the total cost could well be much larger, using the past 20 years as a guide to annual quota value.
increases. This cost will greatly exceed the WGTA buyout of all wheat farmers in Western Canada of less than C$2 billion.

One response to such a large expenditure would be to explore the possibility of spreading these costs out over time. If such a measure was adopted only in response to a final trade agreement, the typical phase-in period would only be five years. However, if planned far enough in advance, this option could be spread over a much longer time period such as 20 to 25 years. This could be accomplished using the two-quota option discussed previously.

### Conclusions

It is reasonably clear that the current DDA Round of trade negotiations is unlikely to provoke major changes in Canada’s supply management policy. Following a successful conclusion and implementation of this round, one response from the Canadian government would be to make the necessary minor adjustments required by the DDA and continue the policy regime largely as it has operated in the past. However, the next round of multilateral trade negotiations will likely result in the need for substantial changes to domestic supply management policy including significant price declines. Canada now has a window of roughly fifteen years to prepare for these possible changes. It is in this context that this paper examines a variety of options for adjustment of the industry so that it can successfully compete in 2020 and beyond.

Many precedents exist across countries and over time for some form of longer term adjustment assistance. Drawing on these examples and the options presented in this chapter, we draw attention to many characteristics to consider in designing an adjustment assistance scheme including:

- the size of assistance payments;
- the basis of payments, whether it be capital values or annual returns;
- the pattern of payments over time;
- the incidence of financing costs between governments and consumers;
- whether a scheme is voluntary or features across the board payments to all;
- whether the same payments are made to all producers or whether there should be differential assistance based on some criteria such as historical quota prices;
- the possibility of introducing new types of quota; and
- the administrative ease of the proposed reforms.
We suggest that special consideration be given to three of these issues. First, payments could be based on a fixed number of annual rental values, instead of on capital values. This would be preferable, given the seemingly “inflated” level of current quota market values. Second, options exist to choose the distribution or incidence of financing costs to either taxpayers, consumers, or both, and this issue should be given special attention. Third, assistance to this sector should be focused on facilitating adjustment of the industry to the competitive pressures it will likely face in the future, including lower product prices. We are confident the supply managed industries can compete in a less distorted world if given time to prepare and an encouraging policy environment.

References


