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Special Report

Rethinking Chicken PSQ

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Summary

In this paper we suggest that the current initiative in Ontario to institutionalize PSQ addresses only a symptom of a more fundamental problem with chicken supply allocation, that being the supply determination process itself. Accordingly, we argue that PSQ should not be formalized and that producers should establish supply based on processor requests. That is, the argument favors a true “bottom-up” approach as opposed to the current top down approach, while mitigating their downside risk through formula pricing.

Introduction

The Chicken Farmers of Ontario (CFO) and the Association of Ontario Chicken Processors (AOCP) are moving towards the completion of a new live chicken allocation agreement. This new deal is the latest in a long and beleaguered line of allocation deals that have been struck over the last twenty years. Currently chicken is allocated to processors in Ontario through fixed supply shares. This latest deal will institutionalize and formalize a system of fixed supply shares for each plant. These shares will become tradable. While proponents of the deal are loath to say the words, the fact is that the new deal makes plant supply quota (PSQ) a fact of business in the Ontario chicken industry. Proponents insist that the new deal is more flexible and market oriented than the current system. The fact is, however, that the new deal is just a new dress on the same old girl. While no proponent wants to say the words “Plant Supply Quota,” the old adage about walking and quacking like a duck are applicable.

This industry has faced allocation problems for over two decades. The problems are basically caused by the innate incentives to keep the market short. These problems have been manifested in premiums to producers and/or the imperfect transfer of market signals as institutionalized through various allocation schemes.

This paper presents a critical analysis of PSQ for chicken.

There are two main purposes to this paper:

1. Provoke debate and reconsideration as to whether the industry really should continue to go down the PSQ path.
2. Present an alternative to CFO, AOCP and OMAFRA policy decision makers that can allow a reconsideration of this deal.

Background

Under the supply management system, national production is determined each quota period. The chicken supply so determined is then allocated to each province based roughly on historic shares and guidelines expressed in the federal-provincial agreement (FPA). The provincial share then must be allocated to chicken producers through a quota system, and in Ontario the supply is also distributed among processors.

Supply allocation to processors is not administered in all provinces. In some other provinces it has come under pressure, however. For example, within the past year there was a major dispute in BC, which was eventually resolved by authorizing the chicken marketing board to implement plant supply assurance.

The process of allocating live chicken to processors in Ontario has had a checkered twenty-year history. Producers and processors have never been able to fully agree on the most appropriate way for processors to secure the chicken that they need to supply their markets. The best minds in the industry and government have tried many different allocation solutions. None of these fully pleased everyone, and none of the allocation solutions lasted very long. The history of allocation solutions in Ontario is a chronicle of negotiation and compromise in the search for a fair methodology.

The main complicating factors are the following:

1. There is supply management at the farm gate.
2. There is an open market at the processor level.
3. There is growing demand for the product.

Chicken farmers offer a fixed supply to buyers who operate in an open, competitive market. There is the belief among some that it is not fair that supply management protects farmers, but processors must then compete in an open market. Assurance of supply or plant supply quota is thought to level the playing field between producers who are protected by quota and processors who have had to chase finite supplies in a restricted product.

The concept of fairness itself would not necessarily be a concern except for the fact that demand has almost constantly been growing. For most of the past 25 years, at any given time, the market demanded more chicken than was offered by the supply management system. This is more by design than by accident. Supply management is less about supplying demand than about supplying demand at a favorable price to industry participants. This means that processors are nearly chronically in a position where their demand for chicken exceeds the available supply. This makes the fairness argument by processors a little more persuasive.

Before going forward, it is important to note that while there is much dispute about allocation methodologies, not many would dispute that a root cause of the problem is supply levels that are chronically less than demand.

The problem of demand exceeding supply has manifested itself in processors paying producers premiums over the regulated live price simply to attract producer supplies. During the 1980s, chicken farmers were paid based on a cost of production formula. For their part, processors needed to ensure they had adequate supplies from growers during any given quota period. As such, they needed to

actively seek and retain supplies and suppliers. This procurement system was called “open sign-up,” as it was a form of open market buying and selling of a regulated commodity with a restricted supply. Processors, typically needing more chicken than the system allotted, were willing to pay more than the regulated price in order to secure supplies. The difference between the regulated price and the actual price was the premium.

Processors of course have been loath to pay premiums for obvious reasons, while producers enjoyed premiums for similarly obvious reasons. Processors pressured governments towards allocation methods that reduced or eliminated premiums. For their part, governments and some producers worried that premiums were an outward revelation of a failure of their supply management system.

Through the 1990’s a variety of allocation agreements were reached and then discarded. These agreements involved locking in producers to processors, assignment of supply, supply assurance and so on. Sometimes solutions were attained by Ministers’ directives and other times by agreement between the processors and producers. Along the way, in 1992 the provincial industry moved away from cost of production pricing to price negotiations between the CFO and the processors. Negotiated pricing continued until 2003 when the industry moved to a pricing formula based on a negotiated margin over feed and chick. This formula was intended to insulate producers from input price volatility and reduce the contentiousness of negotiations.

Interestingly, two themes are observed running through each successive allocation agreement:

1. No side was ever totally happy with the agreement.
2. Successive agreements usually moved towards greater regulatory control over the allocation of chicken to processors, and away from processor competition for live chicken.

The Issue/Problem

When live chicken supply is restricted there are two basic ways to allocate that supply to processors: open sign-up or plant supply quota. The industry tried a number of hybrids which were really just variants found along a continuum between these two basic choices.

Since the early 1990s, the industry gradually moved towards fixing plant supply shares, or PSQ. Essentially, that is where the industry is today and where it is formally deciding to stay. Chicken processors in Ontario are now in possession of tens of millions of dollars in plant supply quota and the chicken industry has moved into a fully regulated structure from farm to the processor’s dock.¹

When demand exceeds supply, distributors ration supply at (typically) higher prices. This, in turn creates a profit opportunity for processors if they can obtain additional live chicken to process. Processor margins are determined, in large part, by live and processed chicken prices, plant operating efficiencies and sales contract terms and conditions. Processors are highly sensitive to restricted volumes because they have fewer units over which to spread their (largely) fixed costs. Rather than run at low capacities, processors will pay extra to obtain a sufficient volume to achieve operating efficiency targets. Also, rather than suffer the consequences of shorting a customer, processors have an incentive to pay more to meet their live procurement requirements.

¹ See Appendix for a discussion of plant supply quota values

In an open sign-up system, the extra margins available to the industry are paid to producers by processors in the form of premiums as processors compete with one another to secure supply. In a system where live supply is allocated to processors according to a set of rules, the extra margins still exist, but there is a greater likelihood that they will be retained by the processors. While premiums paid to growers, if sustained, can increase the value of their production quota, premiums retained by processors will increase the value of their business. When the assignment of supply becomes formalized into plant supply quota, that extra value inevitably becomes capitalized on processors' balance sheets as an intangible asset, otherwise known as quota value.

Weighing the Merits of Plant Supply Quota and Open Sign-up

There are no new arguments against plant supply quota. Despite the age of the arguments, however, they remain valid. The following are the disadvantages associated with utilizing quota to allocate chicken to processors.

1. Allocation via PSQ has the effect of suppressing market information. With an open sign-up system, when supply exceeds demand, the market receives the signals immediately in the form of premiums over the regulated live price. The premiums are an open signal that the market is demanding more chicken. With PSQ, the excess value of the chicken is captured in processor margins and does not provide a signal to the market for live chicken.
2. Allocating live supply by PSQ limits competition for live supply, which therefore stifles innovation throughout the value chain.
3. PSQ distorts the incentives of processors. Under a PSQ system processors have conflicting interests between supplying chicken and maximizing quota value. With PSQ there is an incentive for processors to continually short the market to capture higher margins. These higher margins are rapidly capitalized into plant supply quota values.
4. Premiums allow processors to take advantage of market opportunities without increasing their capital cost structure; PSQ does not.
5. Premiums allow processors to compete and defend against actions and premiums paid by other processors. The only way to compete in procurement under a PSQ system is to buy more quota.
6. Premiums allow processors to attract, discriminate between, and retain quality growers. Under PSQ this dynamic is not so clearly evident or necessary although it may be an argument for premiums even under a PSQ regime.
7. Plant supply quota impedes new entrants. This is already an issue within supply management and establishing PSQ will only exacerbate it by creating additional capital requirements to further impede entry. While most quota schemes make some allowance for new entrants, it is basically tokenism. Quota schemes create regulatory barriers to new competition.
8. Plant supply quota impedes differential growth. While most PSQ schemes do provide some limited opportunities for companies to grow at different paces, the ultimate outcome is to reduce competition between firms.
9. PSQ may lead to a less efficient processing sector. There may exist some older, less efficient plants that would be unable to compete in a competitive procurement environment that can remain viable under PSQ. As such, PSQ does not allocate chicken to its highest and best use among processors, and presents the prospect of creating a "landed gentry" of old, relatively inefficient plants that control PSQ assets, but would otherwise be out of business.

To be fair, for many of the disadvantages of PSQ there are counterpoints. Chief among them is the fact that while premiums do not get capitalized into PSQ on the Balance Sheet, they will reduce processor margins. This will reduce operating cash flow leaving fewer funds available for investments

in R&D, marketing, and capital assets required to improve market competitiveness. With PSQ one has an intangible asset where the incentive is to protect the value of that asset. Over time the business moves from marketing chicken products to protecting quota. With premiums, some firms could be faced with a slow strangulation caused by reduced margins. PSQ, it is purported, will stabilize processor margins, provide greater certainty for investment decision making, and limit predatory processor competition based on which processor can bankroll the largest premium payments.

The other key argument in favor of PSQ, as noted in the background section above, is the fairness issue. Some believe that it is not fair that supply management protects farmers while processors must then compete in an open market where their most critical input is tightly regulated. In fact this argument is a red herring. All processors in all livestock sectors deal with a fixed supply over a set period, and all processors sell into an open market. This is particularly the case with cattle and hogs given the longer growth periods compared to chicken. Nevertheless, it is argued that chicken processors have little power to stimulate additional supply in response to increasing demand since supply determination is tightly controlled. The argument asserts that the resulting premium war is simply a zero-sum game where the net result is a higher live price paid without any sustainable net increase in volume at any one processor. The irony of this argument, however, is that the supply setting process allows chicken processors to have much more to say about the supply response than other livestock processors, and still the market remains chronically short.

Perhaps most importantly, it is the market demand for the fixed supply that sets the price in the processed product market. That in turn provides processors with the information needed to offer live prices. In the case of chicken, this market information typically translates into a price that is greater than the regulated live price.

In considering alternatives to PSQ, some criteria must be developed for a desirable resolution to the allocation problem. Skipping past the focus groups and facilitated group-think sessions, here are some of the apparently desirable properties of a processor allocation system:

1. Efficient information transfer - Efficiently transfers information on market conditions from both the consumer level to the farm, and from the farm level to the consumer
2. Efficient supply response - Avoids sharp fluctuations in total supply and the supply available to individual processors between allocation periods while being flexible to changing market conditions
3. Efficient allocation of supply to processors - Allows chicken supplied to be distributed to its highest and best use across processors
4. Competitively sustainable - Is broadly sustainable for both producers and processors while ensuring there are incentives for all parties to continually strive to improve their competitiveness
5. Facilitates strong procurement relationships - Facilitates and even encourages strong procurement relationships between individual producers and processors

If these criteria define somewhat accurately what producers and processors are looking for in an allocation system, it isn't at all clear that they are getting it in a PSQ system.

1. Efficiency of information transfer - Open sign-up transfers market signals received by processors through to producers very quickly through price. The response is in direct response to the market signals and tells processors and producers that demand is greater than supply. Under a PSQ regime, market signals would tend to be delayed at the processor level since the incentive is strong to retain any premiums that accrue to the shorter supply.

2. Efficiency of Supply Response - Under a PSQ regime, the incentive to short the market is sustained and probably enhanced since processors have an increasing interest to maintain the quota value accruing in their business. Accordingly, the incentive to delay supply increases in response to increased demand is great, and processors will likely temper their supply requests to sustain the high margins. Under open sign-up, processors send much clearer market demand signals to growers thereby creating the opportunity for a more efficient supply response.
3. Efficiency of supply allocation to processors - Under an open sign-up system, processors compete to make their deals with individual producers. These deals may be short-lived, or they may be the basis of long-term relationships. Processors will seek the amount of supply they require. Those able to bid the most will get the supplies they require, not only the volume but the quality and timing. They will be able to bid the most because they earn the better margins in running their business. Supply will be allocated based on efficiency. Under a PSQ system, the competitive dynamic among processors is severely diminished, which may lead to reduced industry fitness and competitiveness, and therefore allocation efficiency is constrained.
4. Competitive sustainability - A PSQ system has the potential to keep uncompetitive processors afloat, and it dampens the competitive dynamic among processors. A system which constrains healthy competition among participants will limit innovation and market responsiveness and will only be sustainable behind significant regulatory protection. If this protection is reduced it may have serious implications for some participants, and by extension, government policy makers as being complicit in supporting and defending the scheme. An open sign-up system requires that all processors compete for supply, among other things. The question is not the competition, but the supply determination process that deliberately shorts the market and fails to respond very well to the market success of individual firms.
5. Facilitates strong procurement relationships - An open sign-up system requires that producers and processors establish relationships with one another. Under a PSQ system the incentive to form and sustain relationships based on mutual benefit to both parties is limited or absent. The processor knows the supply is assured, and as long as they don't care where it comes from, it will arrive. If they do care about its source, they may be willing to enter into some form of basic relationship with a grower or growers. Similarly, the grower knows the birds have a home and that the price is pre-determined by the Board, so the incentive to innovate and adapt to maximize the service provided to the processor is very limited. Under an open sign-up system, both processor and producer know they must work with each other to get what they want or they will switch to another grower or processor, and switching typically costs both parties.

It seems clear that open sign-up is preferred to PSQ based on the criteria and analysis put forward above and as summarized in the table below.

Criterion	Open Sign Up	PSQ
Efficient information transfer	√	X
Efficient supply response	√	X
Efficient allocation of supply	√	X
Competitively sustainable	√	X
Facilitates strong procurement relationships	√	X

In the choice between premiums or PSQ, the market oriented response lands on the side of premiums. Premiums and PSQ are the stark choices in any system that restricts supply and sets price for the supply allocated. It is true that there are potential hybrids that incorporate variants of the two. One example is the current agreement between the CFO and AOCP. The hybrids, like the current agreement, tend to be modified variants of PSQ that offer some token gesture towards competition. To be fair, in a closed supply management system, open sign-up is far from perfect. It is true that there is the potential for destructive price wars and unsustainable premiums. Nevertheless, given the choice between the two, premiums and open sign-up are better for the industry or at least do the industry the least amount of harm, providing supply determination is not managed to insure and enhance premium income for producers.

Alternative: The Argument for True Bottom-Up Supply Determination

If open sign-up is so clearly more efficient in terms of allocating live supply from producers to processors, then why would processors and producers seek to establish market-sharing formulae for processors? The assertion here is that the national supply setting and national allocation schemes generate the problems that lead to the need for processor allocation. If these supply setting schemes can be fixed then the industry is not really faced with only the choice between premiums and PSQ. This industry is in the unique position of being able to remain protected by supply management and border controls while at the same time, avoiding premiums and PSQ.

To address processor allocation problems, the national system needs to return to a true bottom up approach to allocating chicken. Such an approach would entitle and obligate processors to receive the chicken that they request for any period. Premiums, if any, would be for extra quality or service value provided by the producer to the processor.

The current national allocation system is called bottom up but it really is not. Currently processors in each province tell their boards how much chicken they want and the boards dutifully report to the Chicken Farmers of Canada (CFC) in Ottawa. The CFC then sets the volume of chicken within the Federal-Provincial Agreement (FPA) guidelines. More importantly, volume is set based on what the CFC members' analyses indicate is best for protecting pricing and margins. So while the ritual looks good, it is a top down approach based on protecting prices.

Prior to 1994, Canada needed to operate a strict supply management system in order to be in compliance with its obligations under article XI of the GATT. In order to be protected by import quotas, Canada had to have a system that kept domestic production under a rigid set of controls. Under the successor to the GATT, the WTO, Canada's chicken industry was protected by tariffs. Under this at the time, new regime, a rigid domestic supply management system was not necessary to comply with the then-new WTO agreement.

The Ontario board recognized this and in 1994 decided to initiate a bottom-up system. In a true bottom-up system, each processor asks for and then becomes entitled and obligated to receive the volume of chicken that they deem necessary for their market requirements.

Initially and predictably under this new 1994 bottom up system, processors and provinces became involved in a costly market share battle which reduced wholesale prices dramatically. This also forced live prices lower. As time wore on however, processors and provinces began to mature and chicken supplies began to balance with market requirements. By 1995 and 1996, pricing had recovered

materially and the system appeared to be working. In 1996, however, grain prices began a rapid increase, which severely squeezed producer margins. The net result was that the true bottom-up system was discarded due to producer and processor disaffection and the belief that the system hurt returns.

Based on pricing in late 1996, however, it appears that the system was beginning to work well and would have worked well if given enough time.

With that noted, there is one main lesson learned from the true bottom-up allocation system. That is that processors can rapidly adjust production requirements if over-supply leads to margin pressure. Market discipline eventually triumphs over processor or provincial market share battles. If provinces know that the system is here to stay, it becomes readily apparent that market share battles using supply as the main weapon are self-defeating.

At the same time, there is no need for producers to fear bottom-up allocation because, unlike the mid-1990's, processors cannot force producer prices lower if they over-extend on their allocation requests. Now producer prices are fixed by a formula that adjusts for changes in market prices of key inputs such as feed and chicks, and which does not include a wholesale market component. Accordingly, producer prices are protected to the downside by the cost formula, but can adjust to the upside via negotiation of changes in the formula. This formula pricing is also a form of market discipline for processors. If they know they cannot force the live price down to cover their allocation mistakes, they will be more cautious about how much they ask for in the process. Perhaps most importantly, if processors receive all the chicken they need in order to satisfy their market demand, there is no need for premiums or quotas.

Some producer leaders are concerned that with true bottom-up, that they would be abandoning supply management or at the very least, abdicating their authority to set supply. Both of these concerns are groundless. The purpose of supply management is to protect producer income. The border controls via TRQ's and high tariffs are the main tools that accomplish these goals. Authority to set supply remains intact given that producers need quota in order to participate in the market. Supplies are derived from quota holders who receive a share of the total amount of supply allocated to the province by the CFC. In a true bottom-up approach, the boards would simply be using processor requests as the tool for setting supply. The authority is retained by the board to use as it sees fit. Furthermore, the regulated pricing authority, which producers also possess, is always a strong and adequate tool to protect producer income, as long as the border is controlled.

Another concern with regard to the true bottom up allocation is that it would not be acceptable under the Federal-Provincial Agreement (FPA). The answer to that is that the FPA doesn't matter. It only exists as a tool to keep provinces from competing with each other and to keep prices firm. Market discipline, backed up by a formula live price will work much better than the FPA. Recall that it was the FPA or its predecessors and their supply restrictions that gave us premiums and PSQ in the first place.

Conclusion

As the industry marches towards entrenching PSQ into its cost structure, there are a number of questions that need to be asked by the industry and policy makers:

How does PSQ position the industry for more liberalized trade?

Any new trade agreement is likely to provide for modestly increased volumes of imported chicken. PSQ will make processors less competitive as quota competes with marketing and technology for investment dollars.

How does PSQ increase chicken market share and industry growth?

PSQ will impede industry growth by ensuring that it continues to be in the interest of both producers and processors to keep supplies tight to protect margins and quota values.

How does PSQ ensure innovation and Increased Quality?

PSQ ensures that there is little, if any, incentive to innovate or compete on quality.

How does PSQ ensure industry flexibility?

PSQ ensures greater rigidity and less incentive for either producers or processors to react efficiently to changes in the market. It seems highly unlikely that increased regulation and supply allocation rigidity, coupled with the reduced incentives to innovate will not sustain the industry's competitiveness into the future.

How will PSQ improve relationships between producers and processors?

In the honeymoon period following any new agreement, it seems reasonable to expect that the CFO and AOCP will appear to be getting along a little better. However, will relationships be any different between individual growers and processors? It is highly unlikely that PSQ will cause processors or producers to form stronger relationships than they would under an open sign-up system.

While it is understandable that processors want to minimize competition for live chicken supply that is based on regulatory constraints, it is clearly not in the best interests of the industry as a whole. The reality is that with a true bottom-up approach, as opposed to the top down approach used now, neither premiums nor PSQ would be an issue. Furthermore, with a true bottom up approach, producer income and the supply management authority would remain entrenched.

The true bottom up approach needs to be given an opportunity to succeed. The solution to the chronic problems associated with unsustainable premiums and the use of supply as a competitive weapon by both producers and processors lies in the supply determination process, not the supply allocation process. The solution imposed by answering the wrong question may well turn out to make the situation worse, not better.

Appendix: Valuing PSQ

In Ontario under the new deal framework, a plant's chicken quota is separable from the plant and it is tradable. As such, not only is there value in the quota but also it can be bought and sold. There are already offers to trade, lease, buy and sell PSQ in Ontario. Of course the value of PSQ at any given time is dependent on a number of factors such as profitability and capacity utilization. The value of quota to one processor will differ from that of another processor at any given time depending on operating circumstances. Furthermore, the value will be established based on private trades between willing buyers and sellers, as such there will not be an official quotation.

With that said, it is of interest to explain how PSQ attains value. It is also of interest to provide a rough, conservative estimate of the value of the total PSQ in Ontario. By definition, quota has value due to the profit created by restricting supplies. As such, past premiums in Ontario can be used as a

guide. In the early 1990's producers reported premiums of about 10-14 cents per kilogram. During the past two years, market indications suggest that if there were open sign-up, premiums would likely range from 0-2 cents per kilogram. For the purposes of discussion and illustration, based on the long run history of Ontario supply and demand, it is reasonable and conservative to assert that premiums of four cents per kilogram would be the long-term norm. Depending on market conditions it may be a little lower or much higher. These four cents give an indication of the added value that processors place on an additional unit of chicken quota. That is, if premiums are around four cents and if the regulated live price is \$1.25/kg, instead of \$1.25/kg live, the actual value is closer to \$1.29/kg.

In Ontario, recent chicken production allocation is about 50 million kilograms eviscerated per quota period or about 315 million kilograms per year (425 million live basis; $315/.74$). If the extra unit of quota has an added value of four cents per live kilogram per quota period, that suggests that the tradable value of the annual Ontario volume amounts to about \$17 million ($0.04 * 425$ million). This represents the value lost to producers and gained by processors over the year. One way to gauge just how much that value is worth over the long run, the \$17 million can be capitalized by dividing through by a rate of return. If a long run capitalization rate of 10% is used, that suggests that quota value in Ontario is worth about \$170 million dollars.

Actual offers to buy and sell in Ontario now suggest that this is a very conservative estimate. With that noted, the above illustration does show the economics behind PSQ values. Furthermore, it does illustrate the fact that a new capital cost has been created by the regulatory regime in Ontario.

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