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Policy Context & Rationale for Intervention in the Agri-Food Sector

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SUMMARY

In Canada, governments have a long history of intervening in the agri-food sector. But the economic contexts in which the agriculture sector operates tend to evolve rapidly; decades after putting policies in place, governments and stakeholders may no longer recall the rationale for intervening. The traditional justification for intervention is public concern with the distribution of income (an equity consideration) or a failure of markets to work according to economic theory (an efficiency consideration). The justification for intervention due to imperfect markets can involve:

- Public goods and services, such as web-based extension reports and crop information. Private markets can fail to provide enough of a public good or service when it is impossible to exclude individuals from consuming the good or service and one person's use does not exclude that of another.
- Externalities, such as higher public healthcare costs resulting from poor nutrition. An externality occurs when benefits or costs are not borne by the decision maker.
- Market power and monopolies, such as when a firm influences market prices. Cooperatives, for example, were granted certain privileges to offset the concentration of power in the hands of a few buyers or service providers such as the railroads.
- Imperfect and asymmetric information, such as when one party is uncertain about a product's attributes, or when a processor has more information about required attributes than does a supplier. Labelling requirements can solve some of these private-market imperfections. The rationales for intervention can also be based on offsetting economic distortions created by the actions of a foreign party. Subsidized exports by one country can undermine returns in another. Another economic argument for government intervention is to harmonize standards with major trading partners.

Social policies also drive government intervention. For example, subsidies to grain-based ethanol and other biofuels have been justified by the desire to develop rural economies, encourage energy security, and meet environmental objectives. Other political reasons for government intervention include: improving sector competitiveness, encouraging economic development in certain sectors by lowering the risk of failure, signalling areas of opportunity for growth (e.g., bio-chemicals), and building capacity in underdeveloped areas. The equity argument for intervention is based on inadequate levels or distribution of income.

In the case of democratically elected governments, intervention is not always based on equity considerations, but can be driven by the demands of constituents or interest groups. These groups attempt to redistribute income toward certain groups and away from others, and the resulting income transfer may not be consistent with broader economic goals. Political markets are no more perfect than their private-market counterparts.

These justifications are based in large part on markets not working perfectly. However, this is not a sufficient cause for government intervention. The benefits of government intervention should also exceed the costs, which can include costs of administration, compliance costs by those affected, and distortions created in the economy.

A review of current programming in the agri-food sector suggests that the rationale for intervention may not be clear, or that there may not be a solid economic argument supporting the intervention. This observation reinforces the view that some interventions are based on political realities. Therefore, policy objectives need to be clearly stated and government interventions should be as efficient as possible.

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Introduction

Government intervention has occurred in the agri-food sector since Confederation, involving various types of programs, regulations, and subsidies. Given such a long-standing tradition, some stakeholders may forget the supporting rationale for intervention. For others, the rationale requires a healthy debate as the sector's operating environment evolves.

This paper is designed to provide some context for government intervention in the agri-food sector. The objective guiding this paper[1] is to "create an understanding of the policy context and supporting rationale for the policy goals, policy objectives and policy instruments in use today within the Canadian agri-food sector. The three major questions to be answered are: What are the major current problems and issues? What are the current opportunities?; Which issues, problems and opportunities can public policy address? It is also important to determine the limits of public policy in addressing problems, issues and opportunities. The paper starts with some justifications for intervention by government in the agri-food sector.

Why Governments Intervene

Within an economic context, there are justifications for government intervention into a sector such as agri-food. The justifications are premised on the economic philosophy that a capitalist economy with private markets is the best system to order the production and distribution of goods and services. The rationale for government intervention therefore revolves around two basic issues concerning the performance of private markets. They are: (1) how (or if) government intervention can improve the performance of the private market economy (the so-called "efficiency" rationale); and (2) how (or if) government intervention can limit the biases of private market outcomes in providing individuals with minimum standards of well-being or fairness (the so called "equity" rationale). Accordingly, under this traditional economic argument, government intervention is warranted if markets are not working properly (efficiency) or the current distribution of income (equity) needs to be addressed.[2] These two broad economic arguments for intervention are discussed below.

The government can, if it so wishes, change the distribution of income. For example, income transfers to producers could be used if there are social justice concerns (i.e., provide producers with a minimum standard of living). In this case, it is important that the intervention address the problem directly.[3] Not all economists are supportive of transferring income to address equity issues. Spriggs and Van Kooten argue that redistributing income toward producers because of social justice concerns is invalid for the following reasons:

- Benefits tend to go to larger units that may not be the most needy;
- Benefits based on commodities don't always result in higher income for need;
- Voluntary programs with producer contributions aren't related to need; and
- Programs with aggregate criteria don't meet needs of individuals (too much or too little).[4]

Often, it is argued that increased equity comes at the expense of efficiency and that the loss of efficiency outweighs any equity result.

If markets are not working properly, resources are not being allocated to their best use. Market failures can result in markets being inefficient in a systemic and substantial way, providing a rationale for government intervention.[5] The main types of market failures are shown in the following table, and include:

- Provision of public goods;
- Addressing externalities or spillover effects of actions on others;
- Counteracting market power; and
- Offsetting imperfect information problems.

Familiar examples of public goods are national defence and lighthouses. Free information regarding crop conditions provided by Statistics Canada and general extension services are also examples of public goods. In these cases, as with all public

Table 1. Potential Market Failures in the Agri-Food Sector

Type	Explanation[6]
Public Goods	Occur when it is not possible to exclude people from consuming public goods, nor does one person's use impact another person's use. "Public goods tend to be underprovided by private markets because they are subject to "free riding" (those who receive the benefit from consuming a good can do so without paying for it)". Extension reports provided on a website by government is an example of a public good.
Externalities	Occur "when one person's production or consumption activities results in spillover costs or benefits to another person, for which the person making the original transaction did not account." In this case, production or consumption activities are either over or under provided by the market. Sometimes, externalities can be overcome via bargaining if property rights are well-defined. Spray drift from one farm to another is an example of an externality.
Market Power	Occurs "when an individual firm can influence the market price of goods for increased profits." It can result from few buyers or sellers, cost structures, or barriers to entry. Having one buyer for a commodity can be an example of market power.
Imperfect Information	Arises when there is information asymmetry ('where one side to a transaction has information that the other side does not possess") or when information is imperfect for both producer and consumer. A food processor that understands attributes required by consumers, but does not pass that information on to producers, is an example of market failure due to imperfect information.

goods, it is not possible to exclude someone from consuming the good or service, and use by one person does not change the amount available for another person. Public goods may be under-provided without government intervention.

Externalities occur when the actions of someone impact others; these externalities can be positive or negative. An example of a positive externality is the flow of benefits to others when producers practise environmental stewardship. An example of a negative externality is the higher public healthcare costs that result from improper nutrition. When externalities are involved, the private sector will provide either too much or not enough of a good or service. Intervention may be required to correct the situation, through means such as laws that define property rights and regulations on permitted actions.

Many governments have regulations in place to limit market power and increase competition in markets. In agriculture, for example, governments may introduce regulations to protect producers from trade practices by input suppliers.

Information problems such as asymmetric information and imperfect information can also cause market failure. For example, information asymmetry occurs when processors, but not consumers, know the quality of a product. This can prevent proper functioning of the market and may require government intervention (i.e. labelling requirements). Food borne illness and chemical contamination are examples of imperfect information. Neither consumers nor producers know, without tests, whether the product carries food borne illness or is contaminated by chemicals. In these cases, governments may have to intervene to ensure the food is safe.

Competitiveness has consequences related to market failure. Technical efficiency, marketing efficiency, and market efficiency can be negatively affected by market failure, resulting in reduced competitiveness. Primary production exhibits low technical efficiency when its ratio of output to input is lower than competitors with similar conditions. But the appropriate government intervention can correct a lack of knowledge or poor managerial skill that is reducing technical efficiency. A lack of economies of scale in product distribution (necessary to correct market power) can result in low marketing efficiency. Government intervention could help establish producer marketing associations. The provision of market information could help producers respond to consumer demand. Lack of responsiveness is also a symptom of low marketing efficiency. Poor market signal transmissions can result in low market efficiency. Government intervention could be called for if these low efficiencies are due to a lack of competition in the supply chain. Government grading schemes can help producers differentiate their products. A lack of differentiated products can also indicate low market efficiency.[7]

Market failure is a necessary but not sufficient condition for government intervention. Sufficiency requires that a) the net benefits of intervention exceed the costs; and b) that the opportunity cost of intervention is appropriate.[8] Intervention in itself is costly and so government policy ought to be delivered in an effective and efficient manner, with due consideration to appropriate policy instrument and desired policy outcomes.

Another rationale for government intervention is based on the recognition that there may be economic distortions outside the control of the government which are harming the economy. For example, subsidies by other agricultural producers that are (allegedly) damaging the income of Canadian farmers could constitute such a distortion. Trade barriers that are based on phyto-sanitary arguments can adversely affect export-oriented sectors. Thus, government intervention can be justified if action is required to offset a distortion created by the action of a foreign party.[9]

In such a situation, Spriggs and Van Kooten question the use of subsidy offsets. This argument "provides a recipe for ever-increasing levels of protection. "Indeed, how does one even determine the precisely optimal distortion in a dynamic world where one distortion begets another in retaliation and so on?" Canada might support affected sectors to get others to reform their policies, but the measures must be temporary. "The problem with stabilization programs is their permanency." A more strategic policy tool than stabilization to offset distortions elsewhere is an ad hoc program.

There are also political and social reasons for government intervention, some of which have an economic argument. Policies undertaken by government are embedded within the overall political structure of Canada, with its regional characteristics and focus on questions such as national unity. It is naïve to believe that government intervention is unrelated to such issues. Democratically elected governments serve the needs of their constituents in order to maintain political power; the interests of constituents may not be consistent with the needs of the economy.

Gilson, writing in 1980, clarifies the policy debate. His paper provides the following quotes[10]:

- "Economics is not a synonym for policy, or policy for economics… Policy is broader and more inclusive then economics" – by Willard Cochrane.
- "Over each of the disputed issues, therefore, the advice of professional economists, though perfectly sound and logical in terms of economic theory alone, has been either rejected or substantially modified by politicians with executive or legislative responsibility. And in each case it is clear that the underlying reason has been the economists' neglect of the powerful non-economic factors involved in the making of public policy. The economists were not wrong but they were only partly right" – by Seymour Harris.

In this view of the world, government intervention occurs because of actions by special interest groups. These groups attempt to redistribute income toward themselves and away from others. According to Gardner, "In short, the set of farm policies we observe, in the United States and industrial countries generally, whatever the stated goals may be, appear to be observationally equivalent to policies intended to support the incomes of farmers as an interest group."[11] In Canada, these types of interests tend to be related to traditional Canadian questions such as national unity and regionalism. Policy debates also tend to be related to larger questions of rural development and rural depopulation. The relatively large imbalance favouring rural versus urban voters tends to favour the agricultural communities in Canada. Larger regional issues will continue to influence agricultural policy questions.

There are a number of social policies and political rationales that result in government intervention. For example, the desire to aid rural economic development, encourage energy security, and meet environmental objectives or other socio-political objectives may underlie the provision of subsidies to ethanol and other bio-fuels. Furthermore, agricultural policies are not independent of overall monetary and fiscal policies of successive Canadian governments. Another rationale for government intervention is that strategic policies in the international arena can improve economic performance by key sectors. In strategic trade policy, "under some circumstances a government, by supporting its firms in international competition, can raise national welfare at another country's expense".[12] The provision of government grants to commodity groups for international market development could be an example of this kind of policy.

Aside from strategic policies to improve competitiveness, there are other political reasons for government intervention. These can include encouraging economic development in certain areas and sectors by lowering risks (such as the risk of failure or ability to attract capital), signalling areas of opportunity for growth (such as in bio-chemicals), and building capability and capacity in underdeveloped areas to promote growth and economic development.

Against the backdrop of these rationales for intervention, the unintended consequences of intervention need to be considered. First, action taken by Canadian governments may be illegal and violate international trade agreements. If the Canadian case for harm is justified, cases need to be vetted in international tribunals before any action is taken. In some situations, retaliation by other countries could more than offset any gains to harmed parties within Canada. Canada also needs to maintain a reputation as a good international citizen in order to have influence in the development of international trade agreements that can provide benefits to Canadian agriculture. As well as being consistent with Canada's international treaty obligations, Canada's agricultural policies should be designed to cause minimal market distortions, and should be neutrally applied across sectors and supply chains.

Policy Context: Current Issues

The preceding section provides a context for government intervention. Intervention typically has a linkage to issues and opportunities in the agri-food sector. A review of organizational positions identified issues in the sector. In Canada, much concern exists over farm incomes and farm income and stabilization programs. The supply managed sector is a notable exception. Many of the farm organizations do not believe that Canada has a comprehensive farm policy or a farm strategy. Some groups are attempting to develop such a policy.[13] Some organizations believe that governments should address problems affecting Canadian producers that are outside of their control, such as actions by foreign governments and market access issues. The need for innovation is an issue. Biotechnology and marketing are only issues for the crops supply chain. Problems with the regulatory system are being felt in the crops, horticulture and supply managed chains. The structure and power by some players in certain supply chains has been identified as an issue. The disposal of Specified Risk Material (SRM) is an issue in the red meat supply chain.

Have the issues changed/evolved over time?

There have been some shifts in the issues. At the local, regional and national levels, the opportunities arising from the popularity of local markets is the newest issue. Other issues include climate change, health, tourism and recreation and the environment. New farm level issues are traceability and biosecurity. Perennial farm level issues include: farm income issues, access to capital for new farmers and nonsupply managed commodities, high land prices, the lack of young farmers, and the need for human capital and farm inputs. The importance of innovation is also gaining greater recognition. Both the right and left sides of the political spectrum are expressing support for reforming railway regulations in order to protect producers from the railway's market power. This is a fundamental change.

Export intensive supply chains, such as crops and red meats, have more issues at the international level than supply chains focused on the domestic market. It is clear that issues with non-tariff barriers outweigh tariff issues. The importance of market access has increased over time.

Is the context for intervention different in some provinces and/or are there differences between provinces and the federal government?

The crop and red meat supply chains are concentrated in Western Canada, particularly the Prairie Provinces. The dairy, horticulture and poultry supply chains are concentrated in Central Canada. Thus, the Prairie Provinces tend to focus on the crop and red meat supply chains, while the dairy, horticulture and poultry supply chains gain importance elsewhere in Canada. Because the crop and red meat supply chains are export oriented, international issues would be of importance. The federal government would focus relatively more on international issues in these supply chains. An important exception is the concern by the supply managed supply chains that changes in international trade agreements threaten their existence.

At times, some provinces have introduced programs to support specific sectors. These initiatives have caused distortions in other provinces.

Is critical mass, or the lack thereof, an issue affecting parts of the sector or parts of the supply chain?

This is the case for some supply chains. The horticulture supply chain believes that alliances can be used to offset the lack of critical mass. Red meat producers are experiencing the negative impacts of a concentrated processing sector. Poultry and dairy producers use supply management to create critical mass.

Policy Context: Current Opportunities

While a number of negative issues are prevalent that may be addressed through government intervention, there are also opportunities that can potentially be addressed through government action. The following opportunities, from the viewpoint of producers, were identified through a review of organizational positions: bio-energy, and bio-fuel; research and development activities; innovation opportunities through science cluster market development activities; domestic market expansion for wheat, soybean and ethanol through collaboration (outside the CWB area); consumer demand for local food; positioning of products in the domestic market; the relationship between fruit and vegetable and health; establishment of minimum standards for fruits and vegetables consumed; extension of the marketing season for perishable crops through technological advances; product differentiation, and participation in carbon offsets.

Does the agri-food sector have the ability to identify and seize market opportunities?

There are some barriers that curtail this ability. Parts of the crop supply chain believe that regulations prevent them from seizing market opportunities related to biotechnology. Regulations may be inhibiting the development of niche dairy markets. In some regions (Atlantic), the lack of scale in processing is preventing access to regional red meat markets.

Intervention to Address Problems, Issues and Opportunities

This section examines the rationale for government intervention for some of the issues, problems and opportunities identified by the agri-food sector.

Business Risk Management: Many groups have been critical of the current set of business risk management programs. Past or current programs that might fit under the Business Risk Management banner include stabilization, direct price support, crop insurance, and income support. Economic inefficiencies result from market failures (information problems and incomplete risk markets). If this occurs, producer welfare can be increased via stabilization. However, Spriggs and Van Kooten suggest that there are better and cheaper alternatives to stabilization, such as market information services, forward markets and future markets. Some economists argue that stabilization programs are really transfer payments because they involve transfers to a targeted segment of the population. The transfer could occur through support of price or subsidized insurance.[14]

After the last WTO agreement, many countries have attempted to decouple their agricultural policies. A decoupled subsidy is like a lump sum transfer in which producer behaviour and the size of the transfer are unrelated. Producers respond only to market signals. The purpose of decoupling agricultural programs is to localize the impact of farm programs to limit spill-over into international markets.

Canada is moving toward a whole farm approach which targets net income. Canada has provided ad hoc dollars tied to fixed and historic criteria for BSE and grains and oilseeds. Even if ad hoc programs are decoupled, they may lead to problems because they reward risky behaviour and therefore may cause a moral hazard problem.[15] This sentiment was echoed by the OECD in its evaluation of Canadian agricultural policy. “Support based on non-current production has increased steadily since 2000, but only one programme in this category has had a duration of longer than two years. Continued use of ad hoc payment programs may result in a de facto institutionalisation of income support and resulting incoherence, with stated government policies that identify income risk management and not income support as the main focus of government intervention in the sector. Moreover, such programs can change the expectations of producers increasing the level of distortion and reducing the market orientation of the sector.”[16]

Countering External Forces: Some groups have suggested that government intervention is necessary, in order to offset distortions in international markets. This type of policy has been used by Canada (i.e. ad hoc payments for the grain and oilseeds sector) and other countries (i.e., the US subsidized exports under the Export Enhancement Program) in the past. Results have been mixed.

Agricultural Research and Development (R&D): Stakeholders have identified R&D as both an issue and an opportunity. In terms of market failures, intervention may be required in agricultural R&D because of knowledge spill-over and issues with risk, uncertainty and capital markets.[17]

Knowledge spill-over arises when firms can’t capture the full benefits of R&D. Property rights can help to correct this. The strongest cases for intervention occur in basic research “especially where most governance and funding mechanisms concentrate on the highest quality and most efficient diffusion practices” and “where businesses are engaged in novel R&D activities induced by support that either spill over cheaply to others or that trigger cycles of innovation by rivals.”

There can be problems in risk, uncertainty and capital markets that may require intervention. For example, while profit is taxed now, losses are carried forward. In subsequent years, the past losses are lowered because of discounting. This reduces the incentive for risky investments that could be overcome by R&D tax offsets. Failures in capital markets can occur because of the risk associated with R&D and because of a lack of knowledge in the finance community. There may also be “difficulties in signalling to markets the value of intangible assets, such as R&D human capital”. In these cases, there may be difficulties in obtaining financing. Government intervention may be appropriate as long as the gaps in finance availability are not due to high transaction costs (i.e., financial institutions may have high costs when dealing with small, risky firms).

There are also some non-economic arguments for government support of R&D. R&D could be an input into government activities such as defence, economic policies, and broad environmental problems.

Government support of R&D can be effective in this case.[18]

Supply Chain Power Issues: Producers suggested that some supply chains are affected by players with market power. There may be a role for governments to deal with market power in the supply chain.[19] To counteract downstream market power, governments can use laws and regulations to ensure price discovery information is available to producers.[20] It may be possible to exploit a sector's market power in the international market. "International market power may be exercised to improve the welfare of specific interest groups while capturing rents in the international market."[21] However, it is difficult to define and measure market power, let alone regulate firms who have market power.

Food safety: The issue of food safety arose many times in discussions over the issues, problems and opportunities facing the sector. Markets will provide food safety if producers and consumers are well informed and food safety information is available at a low cost. Asymmetric information can be overcome by private mechanisms such as reputation, certification, and labelling – if they can occur at a reasonable cost. Markets are not likely to produce food safety efficiently when there is asymmetric information and a high cost to obtain accurate information or when there is imperfect information for both consumers and producers. The latter can occur in the case of food borne illness or chemical contamination. Neither producers nor consumers can detect food borne illness or chemical contamination without testing. Consequently, government intervention may be beneficial in food borne illness and chemical contamination. Government intervention can take the form of consumer education and labelling requirements and by food safety regulations (design standards such as in HACCP and performance standards such as bacterial counts supported by inspections and penalties). Inspection and control costs may be extremely high, as are the costs associated with catching offenders. Systems designed to provide incentives for self enforcement can improve efficiency.[22]

Health: Health is identified as an area of opportunity for Canadian agriculture. Government intervention can occur through the provision of: nutritional information and advice; guides; and labelling requirements for ingredients.[23] Cash *et al* recommend greater caution with respect to linking agriculture and health. While helping consumers make better food choices is in the social interest because it decreases health costs and increases the quality of life, it is difficult to do so through intervention policies.[24]

Market Access: Various issues associated with market access have been identified by producer organizations. Government intervention in the area of international market access can be justified because of externalities. For example, if an individual firm can negotiate better market access, the rest of the industry might benefit from better access. This results in the private sector under investing in market access activities. Under investment by private firms will also occur if they can't afford the risk of failure. Biosecurity efforts by government can increase access and produce net benefits. Changes to trade barriers generally require government changes to regulation/legislation.[25]

Many supply chains identified uneven market access to inputs and associated regulatory barriers as an important issue. For example, Canada's horticulture sector competes with the US sector, which has access to a broader set of pesticides. The uneven playing field continues despite lobbying and efforts to reform regulation.

Summary & Conclusions

This paper has identified issues, problems and opportunities facing Canada's agri-food sector. Table 2 summarizes potential rationales for government intervention in these and other areas.

It is not possible to slot programs under only one rationale for intervention. It is also difficult, if not impossible, to unambiguously state that such interventions are based on sound economic principals. They could be drawn from a general model that generates funds for a special interest group that has power within the system. Because it is important to recognize that there are limits to public policy, the table also contains comments regarding

Table 2. Linking Types of Intervention with Rationale for Intervention

Rationale	Examples of Agricultural Policies/Programs	Comments
Income Distribution – Equity	Business Risk Management programs. Supply Management. Responses to exogenous shocks such as BSE.	Can be difficult to determine actual rationale. May be captured by special interest groups. Or, can be the result of pressures for income redistribution by special interest groups. Can result in detrimental changes in producer behaviour.
Market Failure (specific market failure in brackets)	R&D (public goods, externalities) Commericalization/Innovation (public goods, externalities) Business Risk Management (imperfect information) Animal Welfare (public goods, externalities, imperfect information) Biosecurity (public goods)	Very difficult to determine if market failure is actually occurring and if intervention would improve matters. There may be significant unintended consequences such as adverse changes in producer behaviour, violations of trade agreements, etc.
Offset External Distortions	Ad hoc payments to G&O (counter other countries' subsidies that impact world market) Ad hoc payments to livestock (counter loss of access to export markets due to border closures resulting from BSE)	Programs must be temporary and must not be foreseeable. If these conditions do not hold, the possibility of these programs will change producer behaviour. These programs likely to foster retaliation.
Strategic Policy	Export development programs	Difficult to formulate effective intervention. May be captured by special interest groups. Retaliation can result from these policies.

unintended consequences of intervention.

Is the need for policy intervention in the farm sector unique and different compared to other segments of the agri-food supply chain?

Market failures occur throughout the agri-food supply chain and are not unique to the farm sector. For example, private sector investment in crop development is dependent on the establishment of regulations regarding intellectual property rights. Perhaps what is unique to the farm sector is the number of parties affected. For example, the crop sector has over 118,000 individual producers. The number of entities upstream and downstream from the producer is very small in comparison. The imbalance in numbers can result in issues of market power, which may create some unique needs for the farm sector.

The desire to transfer income to the farm sector for social justice reasons is unique to the farm sector. The farm sector also benefits from income redistribution because of its political power. Other parts of the supply chain, however, also benefit from political power.

In Canada, strategic trade policies appear to be used more frequently in industrialized sectors.

Have the policy rationales changed/evolved over time?

Until recently, there has been less pressure for policies to offset distortions in the world market. In the 1980s, the US and the EU began an agricultural subsidy battle. The interventions resulted in more intervention by the original combatants and other countries over time until some limits on domestic subsidies were put in place by the WTO (the green, amber and blue boxes are discussed later on). Some organizations and experts now argue that some of these reforms have had unintended consequences which have led to a new escalation of government intervention. Sometimes this intervention occurs in the form of green box or blue box programs (which are not regulated by the WTO) and sometimes it occurs in the form of very technical barriers to trade (low level presence and phyto-sanitary issues). Canadian producers have begun to call for government intervention because of what they term "unfair competition" in export markets.

Interventions in areas such as R&D, food safety, and market access rely on market failure arguments for their rationale. This has not changed over time. Business risk management programs cover a wide range of risks, including income risk, price risk and production risk. It is difficult to ascertain if these programs are in response to market failures (and if so, what type of market risk) or the desire to redistribute income toward producers because of social justice reasons and/or because producers are a powerful interest group.

Does the government intervene due to the consequences of policies in major exporting countries that distort markets?

In the past, Canada has responded to distortions caused by other countries' programs. Some groups currently feel that international markets are being impaired by US and EU policies and desire offsetting programs. However, the programs currently in place by the EU and the US are allowable under the WTO agreement. The EU has moved to decoupled programs (green box programs), which have small impacts in international markets. Some of the US policies are not fully decoupled (blue box programs). The last round of retaliatory programs made it clear that this type of policy is ineffective.

Does being integrated into the North American economy affect the policy context and rationale for policy objectives for the agri-food sector?

Export intensive supply chains such as crops and red meats have more issues at the international level than supply chains focused on the domestic market. It is clear that issues with non-tariff barriers outweigh tariff issues. The horticulture, red meat, and crop supply chains are more integrated into the North American economy than the supply managed supply chains. This limits the type of interventions that would prevent trade difficulties. The integration also creates a need for access to the same technology package by Canadian horticulture producers as other North American producers, and for harmonized product labels and standards.

There is a long history of government intervention in the agri-food sector, and a variety of potential rationales for intervention, some of which are outside of economics. Recognizing the political realities of agricultural policy, Sandell *et al* suggest that "If it is not possible to identify government intervention on economic grounds, economics would suggest that the appropriate course of action is to ensure that the policy objective is clearly specified (regardless of the grounds on which it may be justified) and pursued as efficiently as possible."[26]

References

1. This paper is a condensed version of a longer report prepared by the authors.

2. Rama I and Harvey S, "Market Failure and Role of Government in Food Supply Chain," Department of Primary Industry, Government of Victoria, June 2009.

3. Sandell J, G Kaine, and F Johnson, "Clarifying Economic Justifications for Government Intervention to Assist Agricultural Adaptation to Climate Change," Department of Primary Industries, Government of Victoria, September 2009.

4. Spriggs J and GC Van Kooten, "Rationale for Government Intervention in Agriculture: A Review of Stabilization Programs," *Canadian Journal of Agricultural Economics*, Volume 36, 1988.

5. Rama I and Harvey S, "Market Failure and Role of Government in Food Supply Chain," Department of Primary Industry, Government of Victoria, June 2009.

6. Ibid.

7. Van Berkum S, "The Role of the Government in Enhancing Competitiveness of the Agrifood Sector," 2004 Workshop on Enhancing Competitiveness in the Agro-Food Sector: Making Policies Work.

8. Rama I and Harvey S, "Market Failure and Role of Government in Food Supply Chain," Department of Primary Industry, Government of Victoria, June 2009.

9. Spriggs J and GC Van Kooten, "Rationale for Government Intervention in Agriculture: A Review of Stabilization Programs," *Canadian Journal of Agricultural Economics*, Volume 36, 1988.

10. C Gilson, "The Agricultural Task Force Report – The Benefit of Hindsight," *Canadian Journal of Agricultural Economics*, Volume 28, 1980.

11. Hueth B, "The Goals of US Agricultural Policy: A Mechanism Design Approach," *American Journal of Agricultural Economics*, Volume 82, 2000.

12. Krugman P, "Is Free Trade Passe?," Journal of Economic Perspectives," 1987.

13. The CFA, for example, stated in a February 25, 2010 news release about its initiative to develop a national food strategy that "The belief that farming and food production will always be there has led to disjointed policies and programs. We can't expect agriculture to exist with no comprehensive plan for the future. A strategy is required so that we have a vibrant agriculture sector in Canada. Without a long-term vision, it will be difficult to build the future of Canadian agriculture."

14. Spriggs J and GC Van Kooten, "Rationale for Government Intervention in Agriculture: A Review of Stabilization Programs," *Canadian Journal of Agricultural Economics*, Volume 36, 1988.

15. Rude J, "Production Effects of the European Union's Single Farm Payment," *Canadian Journal of Agricultural Economics*, Volume 56, 2008.

16. OECD, "Agricultural Policies in OECD Countries: Monitoring and Evaluation 2007," 2007.

17. Australian Government, Productivity Commission, "Public Support for Science and Innovation," March 2007.

18. Ibid.

19. Rama I and Harvey S, "Market Failure and Role of Government in Food Supply Chain," Department of Primary Industry, Government of Victoria, June 2009.

20. ERS, USDA, "Market Failure When the Invisible Hand Gets Shaky," *Amber Waves*, November 2008.

21. Paarlberg P and P Abbott, "Oligopolistic Behavior by Public Agencies in International Trade: The World Wheat Market," *American Journal of Agricultural Economics,* Volume 68, 1986.

22. Rama I and Harvey S, "Market Failure and Role of Government in Food Supply Chain," Department of Primary Industry, Government of Victoria, June 2009.

23. Ibid.

24. Cash S, E Goddard and M Lerohl, "Canadian Health and Food: The Links between Policy, Consumers, and Industry," *Canadian Journal of Agricultural Economics*, Volume 54, 2006.

25. Rama I and Harvey S, "Market Failure and Role of Government in Food Supply Chain," Department of Primary Industry, Government of Victoria, June 2009.

26. Sandell J, G Kaine, and F Johnson, "Clarifying Economic Justifications for Government Intervention to Assist Agricultural Adaptation to Climate Change," Department of Primary Industries, Government of Victoria, September 2009.