Public Markets, a Solution to Canada's Grocery Market Competition Problem?

Thesis by Mikaël Allaire

EMLE ID 23803

Supervisor Prof. Lorenzo Clementi

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Authorship Declaration

I hereby declare and confirm that this thesis is entirely the result of my own work except where otherwise indicated. I acknowledge the supervision and guidance I have received from... This thesis is not used as part of any other examination and has not yet been published.

August 9th, 2024 - Mikaël Allaire

Abstract

The Canadian grocery market is one of the most concentrated markets in industrialized countries, with few dominant firms exerting significant control. Through the lens of public interest theory, this thesis examines the market failures and negative externalities inherent in this oligopolistic structure, including regional disparities in food supply, diminished consumer choice, increased prices, and high entry barriers for independent grocers. Many initiatives are ongoing to reduce the oligopoly's adverse effects, but none should increase competition shortly. This thesis examines how subsidizing consumers in public markets could be a complementary economic instrument to increase competition within the grocery retail market in Quebec, Canada while increasing food accessibility, promoting local economies and small entrepreneurs, and mitigating the adverse effects created by the lack of competition. The analysis concludes with implementation recommendations for governments within the context of the European Commission's *Better Regulation Toolbox* and illustrates the proposed subsidy policy through the BC Farmers' Market Nutrition Coupon Program.

Key Words: Public markets, Antitrust law, Competition, Subsidies.

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"Rather than the world becoming too big to feed, have firms have become too big to feed humanity equally, fairly, and sustainably"[1]

1) Introduction

Prices are going up and consumers are getting angry. This is at least the feeling of many Canadian citizens who decided to boycott in April 2024 Loblaws, the biggest grocer in the country.[2] They denounce the high inflation on food and price inconsistencies between the grocer's stores. Indeed, prices for an item can vary up to $4 between stores owned by the same retailer within a city.[3] These consumers lost faith in the political system and decided to take action to force a change. Whether or not the boycott will have its intended effects, this movement demonstrates Canadian consumers' general appetite to see changes in the grocery retail market in Canada. With five grocers owning 76% of this market,[4] the Canadian Competition Bureau (**"Bureau"**) is reporting a need for more competition.[5]

In light of these events, this thesis will analyze the following question: could subsidizing public markets be a complementary policy option to generate more competition in the grocery retail market in Quebec, Canada?

The research is organized in three parts. The first part describes how the grocery retail market creates market failures, externalities and distributional justice issues from the scope of public interest theory. After exposing a need for intervention, the second part of the paper frames potential objectives for solving the competition issue using the European Commission *Better Regulation Toolbox*.[6] With these in hand, a L&E review of different policy options and ongoing initiatives will be conducted. Keeping this line of thought, the study then concentrates more effort on analyzing the complementary economic benefits of subsidies. Finally, the third part discusses how directing money toward public markets could generate competition in the grocery retail market in Quebec and make the food system more resilient.

The scope of the study will be concentrated in Quebec, a Canadian province and be mainly focused on subsidies thus limiting analysis from other policy instruments. The thesis also analyzes specifically public markets as a complementary approach while other alternative food systems exist. Finally, some information is generalized to Canada since some specific research, especially on the grocery retail sector, is lacking for Quebec.

2) Problem Statement

a) Market Failures - Oligopoly

Considering the lack of competition in the grocery retail market in Canada, the thesis will analyze if public interest theory can justify an intervention in the market. This theory serves to explore arguments based on societal values and limitations of the market to determine if regulation is necessary.[7]

The first step is to demonstrate if the grocery retail market creates market failures leading to inefficiencies and an unjust separation of the economic welfare. A predominant market failure can occur when a market lacks competition due to firms engaging in anti-competitive behaviour, thereby possessing near-monopoly power.[7]

The grocery retail market is defined by the geographic structure of Quebec. Since the province is vast, many areas are only supplied by one supermarket which holds a monopoly for this specific market. Entrant competitors face low incentives to engage in these markets, both because of the incumbent's solid dominant position and because they are attracted by other more profitable markets (a phenomenon called "cream-skimming").[7(p32)] Firms are then less willing to compete in a remote market, such as rural Quebec municipalities, where the effect of heavy competition increases their start-up costs and diminishes their profits.[7]

Indeed, they lack incentives to enter competitive markets in remote areas with lower demand compared to densely populated cities, as supplying food in these areas is more costly. They will then not be able to supply the same quantity and quality of food to remote areas for the same price as in dense cities.[7] Indeed, the transportation costs are higher to bring food to remote cities combined with a lower demand which should lead to higher prices. To supply food in a uniform way (both from a pricing and a quality point of view) throughout the province would require firms to cross-subsidize.[7] However, this is allocatively inefficient since the "*demand and supply in the remote area are being higher than is economically justified.*" [7(p32)] Therefore, these areas become under-supplied and lack competition, as the Bureau also pointed out.[5]

However, it is commonly assumed the food market should be available to consumers at an affordable price across Quebec since food is an essential good: everybody needs to eat every day. Citizens expect a certain level of standards, quantity and quality of foods where they live.[7] However, in an unregulated market, supermarkets would not supply food in remote areas at the same price as in dense areas since marginal costs[i] would be different (ex: transportation costs, demand and supply effects).[7] These market realities create *de facto* inequalities between regions in their food supply.

Also, general demand for food is inelastic and in the case of a reduced supply (such as a firm acting as a monopoly), consumers are held captive by the supermarket in their area. The supermarket has the ability and the incentive to increase profitability by raising food prices, as consumers ultimately have little choice but to still make purchases in their establishment. The monopoly supermarket will be willing to overcharge products over its marginal cost

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[i] The marginal cost is the cost of producing one additional unit.

since consumers face no other possible consumption choice within the area.[ii] This situation could justify intervention by the government to protect consumers from possible rent-seeking behaviours but also from inherent inequalities between dense and remote areas.[7]

b) What We Know From Grocers' Behaviour

i) Profits

Gross profit margins can be a good indicator to observe if firms can increase their prices over their costs. Indeed, the gross profit margins look at the ratio between gross profits and the total revenue for goods.[iii]

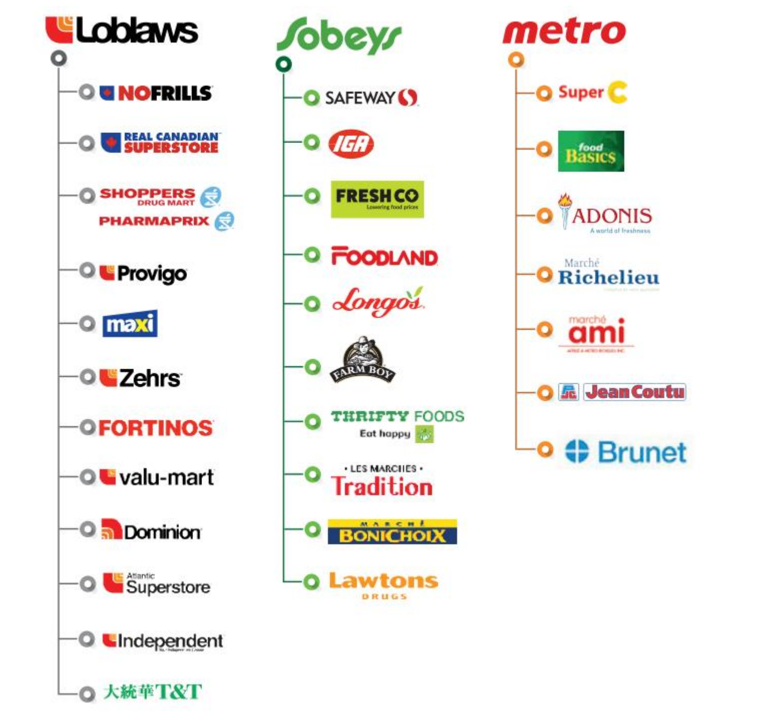
$$\text{Gross Profit Margin} = \left(\frac{\text{Gross Profit}}{\text{Total Revenue}}\right) \times 100$$

An increase in gross profit margins means that grocers make more profits from the goods they sell. Usually, it implies that the price increase is then higher relative to the cost increase.[5] In Canada, the three biggest grocers have been able to increase their gross margins by one or two percentage points per year since 2017.[5][iv] As the grocery is based on a low-margin high volume model, even modest increases in gross margins can be quite meaningful. This means that a "*one-point percentage increase can add over $1 billion to Canadian's food bills each year.*"[4(p25)] This increase exposes a lack of competition in the Canadian grocery market since

[ii] The area is defined by the Bureau Competition Canada as a 20-minute distance radius from the consumer's residence.[5]
[iii] Gross profit is defined as the total revenue from sales minus the cost of goods sold. The cost of goods sold is the direct expense for the good (labour, materials, etc.). It does not include indirect costs (ex: marketing) and taxes. The total revenue is the total income from sales before deductions. Gross profit margin can vary from 0 to 100%.
[iv] However, Supermarkets in Canada sell also non-food products which are also included in their total revenue. This increase is not only focused on food products. Data on only food products would be more pertinent, but the Canadian Bureau Competition does not have the power to require this information from grocers. Tackling this information asymmetry problem would add more transparency in the grocery retail market.

grocery firms are in a dominant position where they can afford to increase prices at a higher rate than at which they incur additional costs.

Figure 1 (Three Biggest Grocers): Stores owned by or affiliated with Loblaws, Sobeys, or Metro



Source: Competition Bureau Canada. Canada Needs More Grocery Competition. Published online June 2023.

Furthermore, the three largest grocers increased their profits from $2.4 billion in 2019 to 3.6 billion in 2022.[5] However, an increase in profits does not necessarily mean an increase in gross profit margin. Indeed, higher costs will lead to higher profits with a constant profit margin. If apples cost the grocer $5 and he wants a 20% margin, the retail price will be 6$ for a profit of $1. Now, if apples cost the grocer $5.10 and the retailer still wants a 20% margin, the retail price will be 6.12$ for a profit of 1.02. This increase in profits then shows that firms can maintain their profit margins and the increase in costs is only passed down to consumers. This decrease in consumer surplus benefits the seller's surplus. As prices approach the point where consumers are unwilling to pay more, the inelastic demand for food compels consumers to buy. Although consumers can switch between grocery providers to seek lower prices, the increased profits of the three major grocers suggest an oligopoly with high market power. In this market structure, no matter where consumers turn, they are likely to experience a reduction in consumer surplus. This entrapment combined with the gross profit margin increase suggests that the grocery market in Canada would benefit from more competition.[5]

ii) Entry Barriers

Another indicator of the presence of an oligopoly is the presence of barriers to entry. The Bureau found that independent grocers face important barriers to entering or expanding in the grocery market.[5] Independent grocers often purchase supplies directly from larger grocery chains. Due to their limited warehousing capacity and smaller purchasing power, these grocers rely on the larger chains, which operate both retail stores and wholesale businesses, to meet their supply needs. Independent grocers struggle then to compete on price with these businesses since they are their suppliers. Additionally, distributors frequently engage in financial agreements with major grocers to secure shelf space for their products, a practice from which independent grocers are excluded. This practice highlights the considerable market influence wielded by these major chains, as evidenced by distributors' willingness to provide financial incentives for increased product exposure. Also, small-scale grocery store owners encounter challenges in securing suitable infrastructure for their stores due to the need for ample parking space and a significant floor area.[5] Much of the available real estate spaces are already dominated by large grocery chains and under property control clauses.[5] In fact, Loblaws and Sobeys are currently under investigation by the Bureau for anti-competitive conduct over the use of property control clauses.[8]

iii) Consolidation

Additionally, the process of consolidation raises concerns for independent grocers, who are apprehensive that larger grocers will continue to acquire them.[5] In Canada, the number of large-scale grocers shrank from eight to five between 1986 and 2023[5] making it one of the most concentrated food systems in industrialized countries.[9] These five retailers now are highly consolidated owning 76%[v] of the total retail grocery market.[4] The rest of the market is divided by 6,800 independent grocers and 27,000 small convenience stores.[4] The 4-firm concentration ratio (CR4) is a common tool used to assess market competition by measuring the combined market shares of the four largest firms. A CR4 value exceeding 40% signifies limited competition while surpassing 60% denotes an oligopolistic market.[10] In Canada, the combined market shares of the four leading grocers yield a CR4 ratio of 68%, indicating an oligopolistic market.[4,11,10] Gaucher-Holm and al. even suggest a CR4 ratio ranging between 84% and 87%, pointing to an even more concentrated market structure.[10] Highly concentrated grocery retail markets put retailing firms in a dominant position which can yield inefficiencies as suppliers get lower prices for their goods while consumers can be imposed higher prices compared to a more competitive market.[12] Concentration can also lead to reduced innovation as firms are not incentivized to cut profits for developing new technologies which could potentially reduce entry barriers in their markets.[12] Additionally, dominant firms can gain disproportionate power over policy debates about their market.[1]

Furthermore, when a firm buys its competitor in a market it can: keep both grocery stores and raise prices (usually raising the cheaper one), or close the acquired grocery store and become a monopoly.[13,14] In both options, consumers and competitors are worse off.

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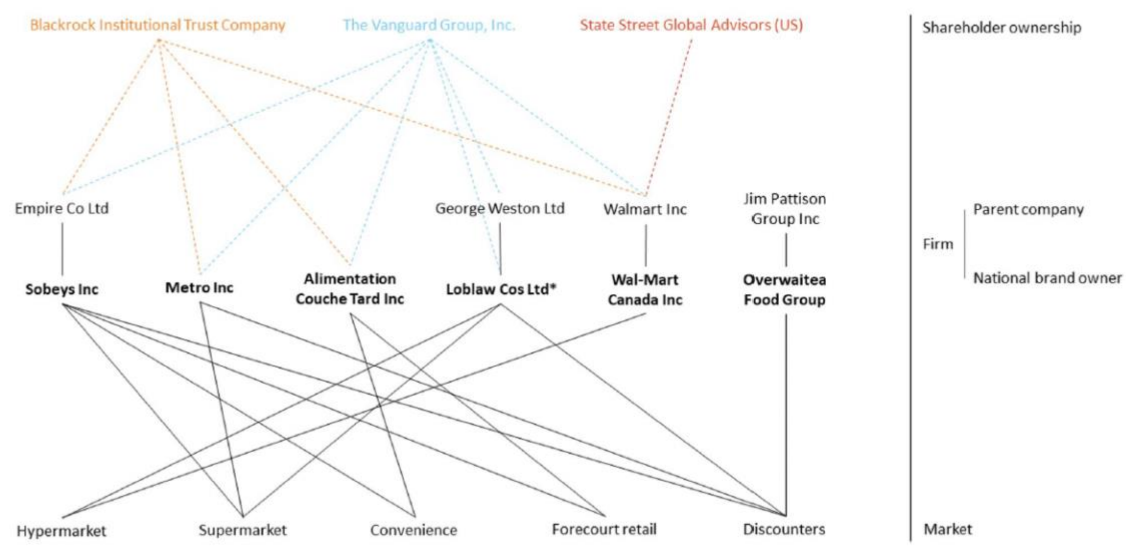
[v] For instance, Loblaws owns 28% of the grocery retail market.[4]

Moreover, it can also increase cream-skimming since the incumbent firm becomes even more dominant in the market. Competitors lose the incentive to compete in this market. This is exacerbated in regional areas as the entries of barriers are much higher.

iv) Financialization

In addition, the financialization of Canada's grocery retail sector pushes firms to strive to increase profits continuously. A 2023 report by the Broadbent Institute explains that Canadian grocery giants are deeply connected to financial markets through capital channels, thus restricting their business autonomy.[11]

Figure 2: Shareholder Ownership by Institutional Investors in the Grocery Retailing Sector



Source: Gaucher-Holm A, Wood B, Sacks G, Vanderlee L. The structure of the Canadian packaged food and non-alcoholic beverage manufacturing and grocery retailing sectors through a public health lens. *Globalization and Health*. 2023;19. doi:10.1186/s12992-023-00917-w

Indeed, firms try to maximize capital accumulation for shareholders by placing more value on short-term approaches for quick financial returns at the expense of long-term investments that promote sustainability and equity in the food system.[1] Consolidation by merger and acquisition becomes also an effective strategy to "*improve performance while expanding their share of the market and influence over the food system*".[1(p2)]

c) Externalities

i) Consumers

The oligopoly player's possible rent-seeking behaviour could also cause other negative economic effects on Quebec's stakeholders: "*these externalities are costs generated by firms but are externalized to third parties due to the firms' dominant position resulting from a lack of competition in the market.*"[7(p35)] High food prices lead to the exclusion of a certain percentage of low-income consumers from the market, rendering them unable to afford basic groceries. Some researchers suggest that higher food prices lead to an increase in poverty and a decrease in consumer welfare.[15,16]

In Quebec, food prices increased by 17.7%[17] in the last two years while the consumer price index rose by 11.2%.[18] In August 2023, the average consumer reduced their grocery monthly spending by $8.35 compared to the same period in 2022.[19] This suggests that consumers may be cutting back on expenses by either purchasing lower quality or fewer goods or substituting them for cheaper alternatives.[20] In fact, 50% of Canadians are reporting cutting back on the amount of food they buy.[21]

Any of these options might lead to a reduction in consumers' utility level. On one hand, choosing lower quality food can negatively affect health, resulting in additional burdens on the healthcare system.[22] Furthermore, lower quality food may be less satisfying for consumers and decrease their overall utility level. The same effect should be observed when reducing the amount of food bought, as this is a measure that consumers are likely to consider only when necessary. On the other hand, replacing products with less expensive alternatives can be indicative of a decrease in quality while also limiting the options available to consumers, given their expanding budget constraints. Consumers may be compelled to opt for cheaper products due to their financial constraints, thereby simultaneously reducing the range of accessible choices. Indeed, a study by Dalhousie University reported that 49.9% of Quebec citizens will "*prioritize cost over nutritional value when shopping for groceries, more so than a year ago*".[23(p3)] Furthermore, 57.6% are concerned that "*compromising on nutrition due to high food prices may have adverse long-term effects on their health*".[23(p3)] The findings demonstrate that despite being mindful of potential adverse health effects, certain individuals may prioritize affordability over the nutritional quality of grocery items, suggesting that their choices might be limited by financial constraints.

ii) Food Banks

In 2023, Quebec's food banks received 2.6 million applications for food assistance every month. However, they provided food assistance to 872,000 people every month, an increase of 30% since 2022 and 73% since 2019.[24] Furthermore, there has been a 98% increase in food emergency assistance since 2019, indicating a rise in food insecurity.[24] This increasing demand for food banks is attributable to the rising cost of rent, utilities and personal debt[17] as some part is also caused by the increasing cost of groceries. Consumers are altering their grocery shopping habits and adjusting their budgets in response to high grocery prices. Indeed, the cost of rent, car payments, and utility bills are costs which are invariable for consumers on a short-term basis. On the contrary, consumers still have control over what they choose to buy at the grocery store. However, the increasing demand for food banks demonstrates that many consumers cannot afford groceries anymore.

It can then be established that the potential rent-seeking behaviour of grocery retailers might create pressure on consumers' budgets pushing some to turn toward food banks. The oligopoly can possibly create negative externalities on these food banks which now struggle more and more to supply the increasing demand. This pressure led to 71% of the food banks having a food shortage from their usual sources of supply forcing 55% of them to directly buy food.[24] Moreover, at the conclusion of 2023, the Quebec government allocated an extra $8 million to mitigate the financial shortfall experienced by food banks due to escalating operational expenses attributed to meeting heightened demand.[25] The escalation of food prices encouraged by grocery giants further compounds the financial strains faced by various stakeholders working to alleviate the resulting adverse effects experienced by consumers.

iii) Allocative Efficiency

These additional investments by stakeholders can be considered allocatively inefficient because they are not the lowest-cost solution to decreasing grocery prices meaning that social welfare is not maximized. The lowest cost solution would be for grocery retailers to sell the closest to their economic cost. Nonetheless, the current oligopoly in the grocery sector doesn't adhere to the principles of perfect competition, which results in higher prices. Introducing more competition into the market could help lower prices and make the market more open. However, independent grocers are finding it difficult to grow or compete. Therefore, there is a need for an economic intervention to address the market failures and externalities.

Additionally, allocative efficiency relies on two fundamental assumptions:

- "*That decision-makers have adequate information on the set of alternatives available, including the consequences to them of exercising choice in different ways*;

- *and that they are capable of processing that information and of 'rationally' behaving in a way that maximizes their expected utility*."[7(p38)]

A failure to meet either assumption can justify an economic intervention.[7] In our situation, it could be argued that tighter budget constraints compel consumers to opt for choices without a full awareness of the potential health implications that may arise from sacrificing quality. When faced with limited options, consumers may prioritize affordability without considering the potential collateral outcomes.[26] Allocative efficiency is not achieved as consumers make choices based on economic constraints, attempting to maximize their expected utility within their budget, without considering long-term health utility.

iv) Information Asymmetry

In this context, individuals with restricted access to grocery options may encounter difficulties in obtaining optimal information about the pricing and quality of products. If there is no other supermarket in close proximity, these consumers are unable to easily access additional information through comparative shopping. As a result, they are limited to comparing products from the same supermarkets, or they may need to invest more time and resources in order to find alternative options for comparison.[7] However, comparison within the same store can lead to the anchoring effect bias. Indeed, when estimating values, people base their estimations on an initial value and adjust their answers according to their inner rational ladder. Experiments demonstrated that different initial values will lead to different estimates in response to the same questions demonstrating a bias towards the initial value.[27]

This phenomenon translates to consumer behaviour regarding marketing and pricing strategies. Consumers' perceptions of the quality and value of goods can be manipulated by their physical placement in relation to one another. Placing a high-value object next to a normal-priced item will make the last one look more affordable. Here, the high-value object acts as an anchor to modify the value perception of the normal item. For pricing, stores can display high prices with the goal to later put these items on sale. By this, consumers will think they are making a deal while getting the item on sale with the perception of paying low for the value. However, the perception is only based on the initial price anchor where the consumer creates a rational value ladder from the subjective initial value. In reality, the consumer could be misled by the firm and pay a normal price for the value of the item even when on sale. Therefore, consumers in under-supplied areas are potentially at risk of being misled by supermarkets using the anchoring bias without alternative stores to compare prices.

d) Non-Economic Justification – Distributional Justice

According to economic theory, rent-seeking behaviour by grocery retailers can reduce social welfare and lead to allocative inefficiency, providing a rationale for economic intervention. However, the concern of fair distribution of social welfare can also be a reason to justify an intervention. From a liberal perspective, governments can try to balance individual liberties and fair distribution to avoid unfair outcomes created by market forces.[7] As a test, it can almost be assumed that anybody in society not knowing their place in society and not considering their economic status would agree that access to affordable food can be seen as a minimal standard of living in a society.[28] Additionally, the right to food is recognized in the *Universal Declaration of Human Rights*.[29] From this basis, it is justifiable for a society to intervene economically if some people are pushed out of this right by market forces, in the present case by not being able to afford food anymore. Moreover, inflation in food prices has a greater negative impact on the welfare of the poorer class of society[15,16] which justifies an intervention to readjust the distribution of social welfare more evenly. One way to do this is by subsidizing as a means of redistribution, which will be explored later in this text.

While market failures and externalities created by the lack of substantive competition due to the oligopoly situation in Quebec may be considered as the primary justification for economic intervention, distributional justice should be also considered at least indirectly when considering the appropriate solution. Nonetheless, it has been seen that the grocery retail market in Quebec suffers from market failures where grocery giants can adopt a rent-seeking behaviour towards consumers and suppliers, reduce innovation and impose barriers to market entry; actions which are exacerbated by financialization. Additionally, these actions create information asymmetry and negative externalities on consumers, governments, health care systems and food banks. These elements from extensive previous research put through the scope of public choice theory justify the need for economic intervention. However, discussion lacks on how to solve the issue from a bottom-up approach, thus moving away from corporate concentration. This thesis aims to deepen the knowledge of how public markets as an alternative food system could add resilience to the grocery retail market and ultimately increase competition.

3) Solving the Competition Problem?

Knowing that the grocery retail market needs more competition, this part aims in the first place to identify objectives, a baseline and criteria to assess market failures, externalities and non-economic issues. This will be done by using the *Better Regulation Toolbox*[6] from the European Commission.

Secondly, these tools will be useful to summarize and give a L&E perspective on ongoing policy initiatives for regulating the grocery giants. It will be done by looking at different policy options while discussing ongoing initiatives through each of these categories. This aims to give a framework for future research on any policy options for the subject. At last, it will be demonstrated why subsidies can be complementary to these initiatives and could potentially foster competition.

a) Setting the Objectives

Setting objectives is an essential step in policy development as it enables the determination of measures for monitoring and evaluating policy impact, establishing the desired level of achievement, and comparing different policy options.[6] Different levels of objectives are needed to have a broad approach. The general objective of the economic intervention in our case is to bring more competition to the grocery retail market in Quebec. Subsequently, specific objectives that precisely outline the intended accomplishments of the policy intervention need to be defined. These objectives should respect the S.M.A.R.T principle where they should be specific, measurable, achievable, relevant and time-bound.[6]

The first objective is to observe no more increase in gross profit margins from major grocery retailers in the food sales sector. This stabilization would signify a potential weakening of the oligopoly, indicating a decreased ability to impose overpriced items on consumers. This objective should be measurable since profits and revenues are information given to government authorities every year. Additionally, a sub-objective should be to have more transparency in the revenues and profits for categories of items sold. The trend of grocery giants engaging in horizontal mergers and expanding their product offerings to non-food items has made it challenging for regulatory authorities to discern which product categories are driving profit growth.

The second specific objective is to analyze the trends related to independent grocers, including any observed increase in their numbers, as well as any instances of consolidation and internal growth within this sector. The implications of such scenarios would suggest a reduction in barriers to the expansion of independent grocers within the market or their market entry. Again, this objective should be measurable every year by governmental authorities from the declared profits, revenues and place of doing business. These objectives can then be useful in assessing if subsidizing public markets and other policies would increase competition within the grocery retail market and if they reach their intended objective after being implemented. The next section will provide a baseline for these objectives.

b) Baseline and Criteria

The first step in finding a policy option to resolve market failures is to set a baseline.[6] The baseline serves as a reference point for comparing various policy options when no interventions have been made. This baseline serves also as a comparison point when integrating a sunset clause which means a deadline for assessing if the policy intervention has an effect or not. A sunset clause can be cost-efficient since it forces governments to act on whether they want to continue, modify or terminate the program.[6] This way, inefficient interventions are not maintained indefinitely which can be costly for society. In our case, the baseline is described in section 2 of this paper where the current grocery retail market situation is defined. Specific (see section 3 a)) and operational (see section 4 d)) objectives can then be used to assess if the policy intervention had an effect or not.

The *Better Regulation Toolbox* recommends considering in some cases the baseline as an option, meaning not intervening further.[6] It has been established that intervention is necessary in our case, as the grocery retail market is plagued by market failures, externalities, and distributive justice issues resulting from an oligopoly. It has become evident that without intervention, meaningful improvements in this market are unlikely.[5]

A sturdy policy assessment needs to offer a vast choice of policy interventions and then narrow down to the preferred option. Explaining the decision process in detail is crucial for actors' compliance.[6] In a broad view, it is important to question what could influence the drivers of the competition problem in the grocery retail market and how behaviours can be influenced to rectify the situation. Consulting stakeholders is also important to assess policy options from all angles and for their appreciation of new policies.[6] However, this aspect constitutes a limit to this study since time and accessibility constraints do not allow for conducting a consultation process with stakeholders. Furthermore, this paper will not be providing a regular impact assessment since many of the discussed policies are already in the way of implementation. Assessing these policy options will be useful to understand how subsidies can be complementary to a solution and why this approach was preferred.

Establishing criteria for choosing viable options and analyzing ongoing initiatives helps to structure the analysis. In our case, based on the *Better Regulation Toolbox*, the criteria are the following:[6]

- **Legal feasibility**: The option needs to respect the existing laws of Quebec and Canada.
- **Technical feasibility**: Technological and technical limitations may not hinder the implementation, monitoring, and enforcement of potential policies.
- **Previous policy choices**: The option has not already been implemented unless evidence proves it was successful.

- **Effectiveness and efficiency**: Choosing an option with a positive cost-benefit analysis or cost-effectiveness analysis when quantifying data is lacking.
- **Proportionality**: The chosen approach should not excessively limit rights in order to achieve the established objectives.
- **Political feasibility**: The policy choice should be able to benefit from political support.
- **Relevance**: The solution directly addresses the competition issue.
- **Identifiability**: Even if options with equal impact persist at the end of the process, only one should be chosen.

On these bases, the following section will analyze different policy instruments that could be used to resolve the competition issues.

c) Choice of Policy Instrument

A myriad of policies can be considered to foster increased competition within the grocery retail sector in Quebec, given the broad nature of the issue and our general objective. However, the goal of this study is to find an option that would be feasible in the near future and that could be proposed to legislators. The thesis will mainly focus on subsidies while detailing how and why this instrument can be complementary to other policy options presented.

i) Economic Regulation – Hard Law

Economic regulation aims to directly regulate the market and the firms, creating a high level of government intervention. These are binding legal rules that specify appropriate behaviours for firms and individuals.[6] Economic regulation is commonly used when risks are high for the environment, economy or individuals and certainty of actors' behaviour is necessary for market stability.[30] This type of regulation is typically implemented in the context of natural monopolies and market structures characterized by imperfect or excessive competition.[30] These rules require enforcement which is supported by sanctions.[30] Rigid rules can offer a structured framework for identifying non-compliant behaviours. Nevertheless, the creation of such regulations requires a significant investment of time and resources. Regulators must possess the requisite knowledge, capacity, and resources to enact effective legislation. Moreover, the adoption of a "one-size-fits-all" approach may lead to discrepancies among economic actors within a specific sector, as the regulatory framework fails to account for variations in compliance costs. This situation leads to inefficiencies and an increase in the cost of the policy.[6] Generally, economic instruments such as subsidies are appreciated more than hard regulation since they do not bind actors to specific behaviour but incentivize them to act in a certain way. Economic regulation is more used when the gains of market-based instruments cannot outweigh their application costs. This can happen especially in sectors where regulators lack information.[6]

In our case, a hard law solution is quite difficult to implement considering the opacity of the grocery retailers' organizations and the lack of information access. For instance, the Bureau has struggled to obtain complete information on the food-only revenues and gross profit margins of the major grocery retailers, despite making multiple requests for this data.[5] Restricting the behaviours of these firms can prove to be quite intricate, giving rise to various potential inefficiencies. Implementing a "one-size-fits-all" solution is impractical, as it fails to account for the diverse operational realities of firms based on their store locations and distribution chains. Given this complexity, it becomes evident that the technical feasibility criteria cannot be satisfied. Moreover, without proper information, it would be impossible to conduct a solid cost and benefit or effectiveness analysis.

Additionally, the Canadian government is currently modifying the Canadian *Competition Act*.[31] The modifications include namely strengthening rules relative to merger and deceptive marketing, simplifying the test for abuse of dominance, increasing penalties for competitor collaborations and giving more power to the agency for information gathering.[32]

Since these avenues have been extensively canvassed to date, this paper will not focus more on these policies. Some of these measures for reducing information asymmetry will be addressed later in the information regulation and education section (→ 3) c) iii)). Furthermore, hard law solutions such as strengthening merger regulations and collusion sanctions can prevent the oligopoly situation from further degenerating. Still, the immediate resolution of the prevailing market inadequacies seems unlikely, as the dismantling of major grocery corporations is improbable, and these actions are not anticipated to foster competition in the near term.

ii) Soft Regulation

Soft regulation offers a more flexible approach. It constitutes a broad set of policy options difficult to specifically define.[6] In general, these policies tend to be less restrictive on individuals' and firms' behaviours. Soft regulation is also most often less costly to implement and enforce than traditional hard law. Indeed, in most cases, government authorities do not have to enforce soft regulation. Moreover, the resources necessary to enact these obligations can be shared or fully supported by firms.[6]

An example of this form of regulation is self-regulation, in which companies use self-imposed constraints through codes of conduct or operational limitations which they are responsible for enforcing.[6] The approach provides companies with the ability to adjust their boundaries in accordance with their organizational structures and market dynamics. Additionally, it allows for greater flexibility in responding to technological advancements.[6] However, this can mostly happen when these self-imposed obligations merge with society's interests since firms would most likely not impose voluntarily unnecessary barriers. Firms are incentivized to act if they benefit from doing so. For instance, if they fear getting imposed regulations.[6] This approach is cost-effective for society compared to traditional regulation since most of the costs are supported by firms. Additionally, self-regulation can be quick to implement as its management happens within the firm.

Last June, all major grocers committed to a code of conduct to set norms on how to behave between suppliers and retailers.[33] Indeed, food suppliers have limited supermarket chain buyers which creates a disproportionate relation of power in favour of retailers (see 2) b) iii)). The *Canadian Grocery Code of Conduct* (**"Code"**) should help to address this power dynamic, increase transparency, stabilize food prices, promote innovation and attract more investments in the agri-food sector. Additionally, the Code aims to reduce inefficiencies between actors by improving dispute mechanisms.[34] The success of this approach will mostly depend on compliance from grocery retailers since the application is voluntary while they still keep their dominant position in the market.[35] However, non-binding norms can be seen sometimes as the first step into binding legislation which leaves time for firms to adapt before being forced to fully comply. This approach has to potential to relieve pressure on distributors but should not increase competition among grocers in the near term considering that small grocers are not even included in the conversation.

Another approach to soft regulation is through co-regulation where private and public sectors cooperate to make legislation. It provides the advantages of being bindings while benefiting from the knowledge and capacity of firms on the market.[6] However, this approach would possibly still put the scope over large grocers a favour them in a certain way as we tried to weaken their oligopoly. The same conclusion can be established with agencies' recommendations that are not binding which would not force a change in the market structure.

iii) Information and Education Regulation

Information regulation aims to reduce information asymmetry between actors. This approach is less interventionist than many others since the goal is to only increase the flow of information.[7] In our case, for increasing competition, information regulation would take the form of mandatory disclosure of certain information relating to the quantity, quality, price, identity and composition of products. This is why amendments to the *Competition Act* were recently made to give more power to the Bureau to require disclosure to reduce the information asymmetry and enable better surveillance over potential abuse of dominant position.[32] Such a measure will potentially increase welfare gains since benefits from providing financial information would be greater than the communication costs of firms.[7] Moreover, risk and uncertainty tend to create behavioural change.[36] Firms abusing their competitive position may positively modify their behaviours since the risk of getting caught will increase and they will have to deal with the increasing uncertainty of getting investigated by the Bureau.

Furthermore, the Bureau recommends the implementation by provincial governments of unit pricing requirements to increase information flow.[5] This also constitutes an information regulation which could generate indirect welfare gains for consumers by increasing competition within the market.[7] The concept of unit pricing serves as a valuable tool for consumers, providing them with the ability to make standardized comparisons between similar products. In this manner, individuals can effectively compare products and form a well-informed decision when selecting one. However, unit pricing is already required by Quebec's law[37(art.91.5)] as opposed to the other Canadian provinces.[5]

Information regulation can also aim to tackle false or misleading information. However, even if oligopolies can benefit from their situation to mislead consumers[7], regulating this issue would probably not have an important impact on increasing competition. The relevance criterion is then not met. Additionally, amendments to the *Competition Act* include provisions increasing protection for consumers from false or misleading information.[32]

iv) Attracting Big Players

Another solution under consideration by the Canadian government is to attract big international grocers to settle in the country.[38] This reinforces the view that the Canadian government acknowledges the lack of competition in the grocery retail market. However, this top-down solution will not favour the strengthening and growth of independent grocers and will direct the government's attention to a foreign firm. It can be argued that social benefits might not be maximized compared to supporting local firms where government investments would be distributed throughout many actors that are already set up on the territory. Additionally, considering that there are 6,800 independent grocers in Canada[4], political support might be lacking from this group which could feel left out. In fact, some of them have already been publicly complaining about this approach.[38]

Furthermore, establishing a sturdy distribution chain and establishing stores throughout the vast territory can take a long time which would probably not be the most time-effective solution to increase competition in the short run. Moreover, as for actual big grocers, an incoming player might not be incentivized to compete in under-supplied areas because of cream-skimming. Therefore, competition is less likely to increase in these specific areas. The cost-effectiveness criterion might then not be met depending on the costs invested by the government to attract a new player. However, more competition in the market can only be beneficial, especially if societal costs are low.

v) Economic Instruments

Economic instruments can be less intrusive since they create financial incentives to modify actors' behaviours without direct legal constraints.[7] However, in most cases, they involve hard laws to be enacted.[6] Economic instruments are defined by their capacity to modify cost or price in the market.[6]

The two most common economic instruments are taxes and subsidies. These instruments can serve a broad goal and be less costly for regulators and firms than economic regulations.[7] The European Commission recommends the use of "*economic incentives rather than regulation*"[6(p200)] to deal with externalities created by competition issues. Furthermore, these instruments can provide more certainty for actors since payments are specific. For example, companies can assess with a high level of certainty the amount of taxes they should pay compared to weighing the risks of sanctions and prosecution when not complying with legal obligations. Moreover, negative instruments (taxes, charges and fees) aim to take money from firms and can incentivize them to adopt certain behaviours. These funds can then finance the creation of a fund to compensate for externalities.[6] Negative instruments would be probably inefficient to impose on large grocers since they would not increase competition. These additional costs to firms could be redistributed to the consumers since large firms are in a dominant position. This would result in consumers just paying more for food. Additionally, increasing costs for grocers in general would affect more independent grocers which could probably redistribute less of these charges to consumers considering their weak position in the market. Moreover, it would add more barriers for independent grocers to enter the market or to grow. Even if negative instruments would only be imposed on large grocers, the comparative advantage gained by small independent grocers would probably not outweigh the costs trickled down to consumers in large supermarkets.

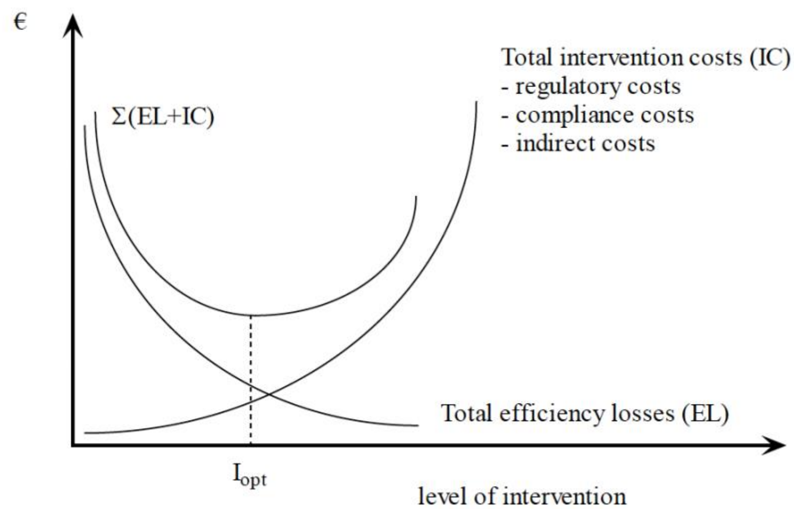
On the other hand, subsidies, as positive incentives, refer to financial assistance provided by the government to businesses, organizations, or individuals. They can come in the form of grants, low-interest loans, tax breaks, or support for public goods. The main goal of subsidies is to redistribute wealth or support specific economic activities. They are typically funded by taxpayers and are an important tool for governments to achieve various social and economic objectives.[7] They are economically efficient when they cover the cost of eliminating externalities which should then lead to an efficient allocation of resources.[7] However, subsidies can become inefficient if they induce firms to produce a larger output than needed or if they act in an inefficient way to attract more subsidies.[7]

d) Subsidies as a Complementary Policy

It was illustrated that many ongoing initiatives are aiming to reduce the negative impacts of the lack of competition in the Quebec grocery retail market, but they do not adequately cover our core objective of increasing competition which creates a regulatory gap. The following section will then analyze how subsidies can be complementary to generating more competition in the grocery retail market. The thesis argues that Quebec's government could potentially do more at a relatively low proportional cost. But first, a detour will be made by the public choice theory to determine what constitutes the optimal level of intervention (I_{opt}).

To assess this situation, the following diagram will help demonstrate the optimal level of intervention when the marginal cost of intervention equalizes the marginal social benefits:

Figure 3: Optimal Level of Intervention



Source: den Hertog J. Economic theories of regulation. *Encyclopedia of Law and Economics*. 2012.

In this representation, the efficiency losses (EL) are maximized in an unregulated market containing market failures, negative externalities and non-economic issues.[30] Firms captured as many as possible resources at the expense of social welfare. Intervening in the market should reduce welfare costs meaning less efficiency losses.[30] Society then would gain welfare from regulation. These two variables should be inversely proportionate since stronger intervention should lead to lower welfare costs. However, we also need to consider the total intervention cost (IC) which considers all costs created by intervening, thus diminishing social welfare.

Indeed, the more complex a regulation, the more cost it will cost to develop and implement. Regulators are required to allocate resources towards acquiring information, building capacity, and developing expertise to effectively regulate a particular industry. Subsequently, after implementation, they will need to invest in monitoring and enforcing the new regulations, resulting in additional costs. Moreover, companies will face compliance expenses related to the adoption and administration of the new regulations, potentially leading to decreased productivity.[30] Unintended consequences or indirect costs can also occur. New regulations could make a market less secure and diminish investments. Also, less profits for firms could lead to a decrease in innovation and effort in reducing production costs.[30]

Turning back to the topics examined in section 2, efficiency losses are demonstrated by the behaviours of grocery giants in their oligopoly (rent-seeking, entry barriers to competitors, limiting consumers' choices, etc.). Furthermore, the first part of this section discussed policy instruments and ongoing initiatives to assess these issues and briefly assess their potential economic efficiency in increasing competition in the grocery retail market. As explained, some of these initiatives could in the long run increase competition in the grocery retail market but none of them directly aim to increase competition as their general objective. This means that Quebec citizens should not expect to see alternative grocers with competitive prices in the short term.

On this, the Bureau explains that: "*We shouldn't expect market forces alone to solve this any time soon*".[5(p46)] Additionally, the agency recommends creating subsidies directed toward independent grocers to foster their growth without giving a piece of the pie to grocery giants.[5] Targeted support for a portion of the grocery retail market (excluding major grocers) could foster competition within the industry. This approach can complement existing strategies without altering the market's fundamental structure. Providing subsidies to certain market players offers a means of influencing behaviour through financial incentives, rather than through regulatory enforcement. By subsidizing the expansion of independent grocers, it is possible to enhance their competitiveness in the market, without necessitating structural changes within the dominant grocery chains. Given the current developments impacting these grocery retailers, such as the creation of the Code and amendments to the *Competition Act*, there is a growing risk that imposing additional obligations could have unintended repercussions. As grocery giants already command 76% of the grocery retail market, significant interference with their operations could introduce uncertainty for investors, reduce their efficiency, and diminish their profits. This, in turn, could result in price hikes that would affect the majority of consumers. Such a scenario would run counter to our objectives; however, subsidies offer an interesting alternative. By providing subsidies to independent grocers, it is plausible that the heightened competition among major grocers would compel them to provide more competitive pricing, thereby driving their prices closer to their marginal costs.[vi] This approach has the potential to rebalance the power dynamics within the market.

Subsidizing the growth of independent grocers as a general angle fulfils our criteria for increasing competition. The analysis will later determine if subsidizing public markets remains aligned with these principles to evaluate the potential success of this option. To begin with, the general idea of this type of subsidy and relevant to the objective since it is directly aimed at finding financial incentives to help independent grocers compete in the market.

[vi] Since gross profit margins are increasing, we know their prices are not determined by their marginal cost.

Moreover, it appears that there are no preceding policies analogous to this one in Quebec, which provides an opportunity to experiment with it.

The approach is also proportional in the sense that it should not infringe anybody's rights. It can be seen as unequal for big grocers to be excluded from subsidies acting within their market and aimed at growing their potential competitors. However, this approach is still proportionate considering that "*independents face significant barriers in growing to become a competitive threat to the grocery giants*"[5(p16)] and that "*without government support, we should not expect independent grocers to significantly expand*".[5(p16)] Additionally, creating a subsidy is legally feasible and it is an economic instrument already used quite often by governments.[vii] Given that governments are accustomed to providing subsidies, adding another one should not be particularly challenging from a technical standpoint. However, the complexity of implementation will be determined by the eligibility criteria for obtaining the subsidy. If stringent requirements are in place, this could result in increased administrative costs for the managing agency and the beneficiaries, complicating the policy option. It will later be argued that subsidizing consumers in public markets would be technically feasible without much information and administrative costs.

Furthermore, consumers are seeking a transformation within the grocery retail market.[5] Political commitments are likely, given the significant impact of food accessibility on all voters. Intervening in this area could potentially lead to substantial political gains for politicians, particularly considering the extensive media coverage of the issue.[2,3,38] Additionally, politicians have shown their commitment to assess the issue through ongoing initiatives as exposed in this section.[34,39]

[vii] We can think of subsidies in the following fields: electricity, water, childcare, schools, etc.

Subsidies to help independent grocers could take many shapes: grants, low-interest loans, and tax breaks. However, any of these options would generate intervention costs which would add up to all the existing costs already generated by ongoing initiatives to solve problems generated by the lack of competition. It is impossible to quantify these costs considering the unavailability of the data, but we can assess that the government already spent large amounts of money on these initiatives (modifying the *Competition Act*, negotiating the *Code of Conduct*, Bureau's investigation and recommendations). It can be challenging to determine the extent to which governments could increase spending to address the competition issue without harming welfare gains. However, it is clear that there is room for improvement, as steps can be taken to enhance competition in the short term. This suggests that certain welfare gains are achievable, allowing for potential intervention costs. Nevertheless, it is crucial to select a cost-effective subsidy to ensure that costs do not jeopardize the welfare gains. The next section will argue that subsidizing public markets could be a complementary cost-effective solution to increase competition in the grocery retail market.

4) Subsidizing Public Markets

a) Why Public Markets?

Public markets are unique institutions that serve multiple economic and social purposes in communities. The term "public market" includes a wide variety of markets, such as outdoor markets, indoor markets, permanent market buildings, market districts, and informal markets run by street vendors. These markets can be temporary and seasonal or permanent, operating all year long. Depending on the specific type of market, vendors may sell a range of products, including fresh and prepared food, as well as non-food items like household goods, crafts, and antiques.[40] They are composed of small, independent businesses with each shop or stall being owner-operated. In contrast to supermarkets, where a single company sells all the items, public markets comprise multiple vendors selling food and other products, often made by themselves.[41] Indeed, public markets can be seen as an "*embodiment of Antitrust*"[42(p226)] since they represent the opposite of concentrated corporate power. The ownership structure can also vary throughout markets with three common structures: owned and managed independently by vendors, owned independently and managed by members of the community and markets belonging to an umbrella organization (generally non-profit organizations that run several markets in parallel under the same banner).[43]

Public markets also offer several key benefits:[40,44]

1. Improved access to quality food: Public markets offer fresh, locally sourced produce and food, increasing access to healthy options for residents.
2. Better marketing opportunities for family farmers: Direct links are established between farmers and consumers in these markets, enabling small-scale producers to vend their products without intermediaries.
3. Enhanced social interaction in urban neighbourhoods: Markets serve as communal hubs, fostering social interactions and unity among a variety of individuals.
4. Employment opportunities: Public markets provide employment opportunities for sellers, staff members, and also help local businesses, thereby boosting the local economy.
5. Entrepreneurial environment: Markets offer a conducive environment for small business creation and development, particularly for entrepreneurs from vulnerable communities, presenting low-risk opportunities for growth.

6. Community economic development: By keeping money circulating within the local economy, public markets support economic growth.
7. Cultural preservation: Local culture, traditions, and diversity are frequently mirrored and honoured in markets.
8. Tourism and city branding: Vibrant public markets have the potential to attract visitors and improve a city's reputation.

Public markets are being increasingly acknowledged as beneficial resources for achieving a wide range of community objectives, such as enhancing food availability and promoting economic growth and social unity. Their complex nature sets them apart as institutions capable of tackling multiple challenges at the same time.[44] Additionally, Quebec's public markets are already composed mostly of products competing within the grocery retail market since 80% of products are food namely 16% of fruit and vegetables, 7% meats and 6% bakery.[45]

Furthermore, an increasing number of Canadians, amounting to 18.5% in 2023 began to visit public markets more frequently, signifying a growing interest in diversifying their purchasing habits beyond exclusively buying from supermarkets.[23] By riding this wave, public markets present an expanding opportunity for the advancement of food producers and vendors, as well as for various societal aspects. Subsidizing public markets could potentially first support the growth of competition in the grocery retail market, and secondly, enhance cultural and societal connections. Additionally, there is already political support for alternative food systems such as public markets. Indeed, the Canadian government has expressed its desire to enhance food self-sufficiency and promote food sustainability.[46] The subsequent section will focus on analyzing the economic benefits of public markets in fostering competition.

b) Economic Advantages of Public Markets

Vendors in public markets are both competitors and collaborators.[43] On one hand, farmers explain that competition within public markets forces them to continuously innovate.[47] Moreover, based on the perfect competition theory, consumers should obtain a competitive price when many vendors sell the same product since they become price takers. This environment pushes sellers to compete on price leading to a price equal to their marginal economic cost. For instance, a new seller entering the market will not be able to sell its carrots at a higher price since consumers will just go to the next stand and buy the same product for cheaper. This new seller will then be forced to drop its carrot price equal to the common public market price or exit the market. This theory will apply to identical products, but not to similar products where some characteristics would be different. For example, organic carrots price should not be the same as non-organic ones. Additionally, markets compete together to have the best vendors which are more experienced and sell better quality products.

On the other hand, public markets exhibit a significant level of interdependence among vendors.[48] The quality and diversity of vendors in the market contribute to their attractiveness to consumers. As a result, an increasing number of vendors is favoured, even though this leads to heightened competition among them. Additionally, vendors often support each other by providing equipment, covering stands for colleagues, and exchanging ideas.[49] This collaboration strengthens the resilience of public markets which provides a competitive advantage compared to big supermarkets.[49] Farmers who sell on public markets for extended periods also appear to engage in more frequent collaboration, suggesting increasing long-term benefits.[48]

Furthermore, public markets can contribute to local economies by encouraging the creation of small companies in rural areas. New farmers have lower costs and risks with an accessible selling platform.[50] This also pertains to individuals engaged in part-time farming who lack the scale necessary to directly distribute their products to large suppliers. However, these individuals can market and sell their produce in local public markets which stimulates local economies and maintains farming areas.[50] Public markets also provide a cost-effective alternative for reaching consumers compared to establishing a physical store and attempting to draw them in. This is especially significant in the current climate of heightened challenges in accessing real estate due to property restrictions.

Moreover, the reduction of entry barriers in public markets enables new players to access the grocery retailing market while providing existing ones with greater stability to enhance their production capabilities. In this sense, public markets have the potential to increase food access in rural areas and promote greater competition in the grocery retail industry. As discussed in the second section, cream-skimming diminishes competition in rural settings, and subsidizing public markets could serve as a viable solution to counteract this issue, particularly given the already limited food options available in rural areas.

Additionally, public markets provide an opportunity to nurture the business skills of new entrepreneurs. The proximity to their client base allows them to gain valuable insights for developing new products and effective marketing strategies.[50] Furthermore, vendors often attest to the positive impact of public markets in honing their business acumen and facilitating the establishment of valuable professional connections.[50] Some studies have also demonstrated that vendors experience a growth in revenue as they accumulate more years in the market, leading to increasing benefits over time.[43] Public markets can then offer a solution for vendors to develop within an entrepreneurial flourishing environment giving them a comparative advantage over grocery giants.

Moreover, it is widely recognized that farmers have minimal bargaining power when dealing with large distributors. Consequently, they often face imposed prices and conditions. Public markets provide an alternative by offering an independent sales platform for farmers. This allows them to bypass distributors and retailers, and to autonomously develop their commercial activities.[50,51] By cutting the distributors and supermarkets from the equation, profit margins are only present at the sale to the consumer. Therefore, theoretically, producers could sell to consumers with the same or better profit margin than when dealing with distributors.[50,50]

Pricewise, study results differ when comparing public market prices with supermarkets. The significance of this factor cannot be overlooked, as 53 % of Canadian consumers prioritize "low price" when making food and beverage purchases. This percentage is notably higher than the global average, indicating the strong emphasis Canadian consumers place on affordable pricing when making purchasing decisions.[4] According to a study conducted in North Carolina, conventional fruit and vegetables sold at public markets are on average 18% cheaper, but no price difference was noted for organic produce.[52] According to another study done in New York, it was found that the prices of fruits and vegetables at farmers' markets are higher when considering the discounted prices at supermarkets.[43] In this line, a study conducted in California found that conventional products tended to be more expensive than in public markets except for organic products which they came with the opposite conclusion.[53] It is then hard to draw a clear conclusion from these studies especially since we do not have access to similar studies conducted in Quebec where vendors have different realities. This constitutes a limit to this analysis.

Another study found the integration of a public market in marginalized neighbourhoods without supermarkets decreases grocery prices by 12% over 3 years for the local population.[54] However, supporting existing public markets would not affect areas with already no food access, but these results open a door for further policy investigation.

One limitation of public markets is that products sold there are less subject to quality control norms than products from supermarkets where many standardization norms exist.[55] This can constitute a disadvantage for buyers where they would maybe need some investment costs to verify the quality. However, public market organizations sometimes try to impose regulations on vendors to guarantee the quality of products.[43] Additionally, the direct relationship between vendors and consumers strengthens the trust of consumers in the products they buy.[56] Indeed, one study found that 73% of consumers find it important that products are organic, but only 49% require products to be officially organically certified.[43] This means that the trust between consumers and producers could alleviate the need in certain situations for costly certification which could reduce production costs.

Public markets possess then many economic advantages to foster competition. Low entry barriers provide a fertile environment for entrepreneurs to develop and compete while offering them more autonomy to sell their products. More particularly, public markets offer an option to stimulate local and rural economies while diversifying food accessibility in those areas. Additionally, the presence of multiple independent vendors should possibly create perfect competition on price while they can still cooperate to support each other. The proximity between vendors and consumers can also build trust, thus increasing the information flow between them.

c) Who Should Be Subsidized?

When considering the subsidization of public markets, it is crucial to determine the most cost-effective recipients of the subsidy. Within the context of a public market, an analysis will be conducted to determine whether vendors, consumers, or public market organizations are the most advantageous targets for subsidization to promote competition at the lowest possible cost.

i) Public Market Organizations in Quebec

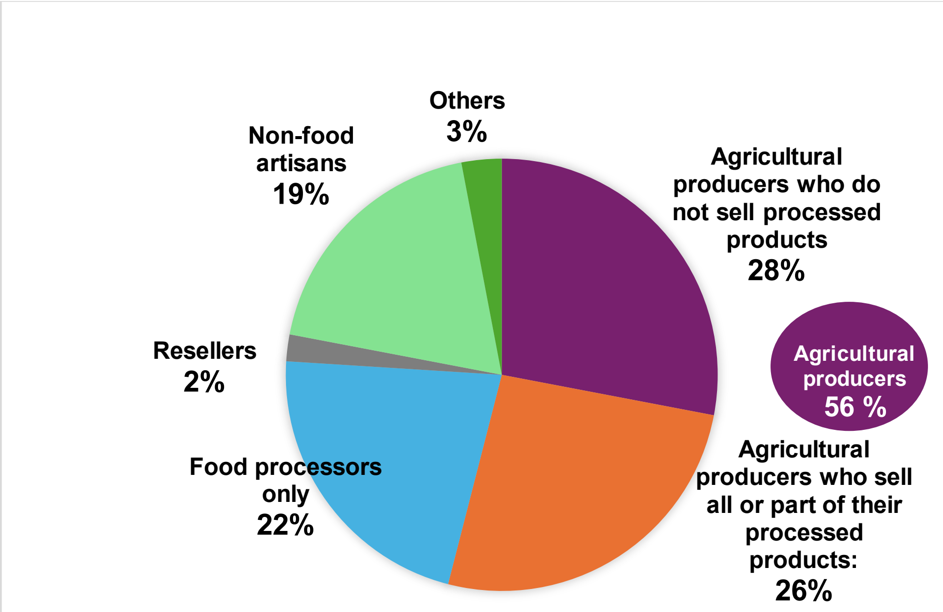
In Quebec, 65% of the public markets are managed by non-profit organizations, 19% by municipalities, 9% by co-ops and 4% by regional municipalities organizations leaving room for only 3% of private for-profit organizations.[45] The majority of public markets in Quebec operate as non-profits or institutionalized organizations, which suggests that they are unlikely to impose excessive charges on vendors for kiosk fees and other expenses. Their primary objective seems to be centred on serving the community rather than solely pursuing financial gain. Additionally, the kiosk fees are not a barrier for vendors to participate in public markets, as this payment typically reflects a well-organized entity with adequate resources for promoting its offerings.[43]

In fact, the average kiosk price in Quebec stands at $42.75.[45] The impact of this low price as an expense for agricultural producers suggests that its effects on food prices are marginal. Therefore, directly subsidizing public market organizations may not be the most optimal approach, as their influence on food prices is likely to be minimal. However, subsidizing the creation of public markets might increase competition once established and reduce prices in marginalized areas, but assessing this potential is impossible with the data in our possession. New public markets' survival would depend on the availability of vendors, consumers' demand and all other structural issues that might arise (location, employees, city's license, etc.). Gathering this information could be quite costly for the implementing agency. Additionally, subsidizing public market organizations would likely lead to improved seller accessibility through reduced prices and enhanced infrastructures. However, the impact of these changes would be minimal and may not significantly increase competition in the grocery retail market. This is especially apparent given that, on average, 21% of kiosks in public markets are already vacant.[45] This suggests that the existing supply of kiosks in public markets exceeds the current availability or interest of vendors, as entry barriers for selling in these markets are relatively low.

ii) Vendors

Vendors and consumers are the principal actors on which a subsidy towards public markets could have major impacts. In Quebec, 56% of public markets consist of agricultural producers.[45] Within this group, the supply chain is minimized as producers sell food directly, eliminating third-party expenses and the principal-agent problem.

Figure 4: Vendor Distributions in Public Markets



Source : Association des marchés publics du Québec, Raymond Chabot Grant Thornton. *Portrait Des Marchés Publics Au Québec*.; 2023. https://www.marchespublicsduquebec.ca/wp-content/uploads/2024/05/Enquete-AMPQ-sur-marches-publics_2023_vp.pptx

The two other groups pertaining to our subject are food processors which represent 22% and resellers at 2%.[45] These two groups incur more transaction costs since they do not produce primary products or directly transform what they produce. They rely on suppliers which weakens their supply chain and exposes them to third-party constraints. Furthermore, as in the case of supermarkets, their production chain is typically longer, involving multiple intermediary parties. This intricate network of stakeholders often leads to consumer price increases, as each party in the chain seeks to generate profits when supplying resources for the product or the product itself to the subsequent party. Nonetheless, it undoubtedly reduces the profits for producers compared to if they were selling autonomously.[50]

Framing a subsidy for vendors can be quite complex since it is composed of many groups with different production realities. A general subsidy on price could have adverse effects such as overproducing which would be economically inefficient. Creating food waste is not socially acceptable and economically wise, especially if it's incentivized by a governmental program. Moreover, subsidizing resellers' prices does not seem viable for creating more competition in the grocery retail market since they could supply themselves at the grocery giants' warehouses. Tracing their suppliers to make sure they are not part of the oligopoly would incur many administrative costs for governmental agencies which would be costly and inefficient towards our goal. Furthermore, food processors and agricultural producers all have different business realities. It would be hard to frame a subsidy considering these realities to subsidize an amount that would directly impact food prices. Finding the right subsidy is easier when it is given to a specific industry since impacts can be more quantifiable. Also, it would be costly for governmental agencies to analyze which amount should be given to which producer or processor depending on the size of the company and the industry.

Additionally, enforcement and administration would be necessary to ensure that the subsidy is used for food sold at the public market which would create additional costs. We can imagine a case where an agricultural producer would produce vegetables at a lower cost and then sell them to one of the grocery giants. This kind of situation would be more than inefficient towards the objective of the subsidy since it would not diversify food accessibility. Furthermore, agricultural producers can already be part of many subsidy programs.[57,58] Adding another general subsidy on top could crowd out the effect of other financing sources and it would be very hard to quantify the direct impact of it. Additionally, many subsidies could create a dependency on agricultural producers who would struggle to run without them.

iii) Consumers

One approach called "*managed competition*"[59(p1)] constitutes of governments providing "*subsidies to consumers who purchase the good from competing firms under the idea that profit motives and market pressures will push firms to provide the optimal quantity, variety, and quality at a price nearing marginal cost*".[59(p1)] Following this approach, subsidizing consumers to incentivize them to make purchases at public markets could increase the demand for goods sold there. An increase in demand should increase revenues and therefore profits made by vendors which would allow them to expand their production. As a result, these producers should benefit from economies of scale through a reduction of their average fixed cost per product leading to lower prices for their products. These producers should then be able to sell their products at a lower cost for consumers, making prices at the public market even more attractive. Therefore, subsidizing consumers could have a trickle-down effect on vendors making it quite cost-efficient since one subsidy could reach the two major actors composing a public market.

The subsidy to consumers could take many forms and be directed to different groups. For instance, in the United States, three food aid programs support low-income households through subsidies to purchase food at public markets.[60–62] Two of these programs provide the subsidy with coupons that can be redeemed directly via vendors selling at public markets. Programs like this can help diminish negative externalities such as the pressure on food banks and direct people towards healthier food and better diets.[63] Indeed, food program beneficiaries found themselves eating more fruits and vegetables.[43] Additionally, such programs can address distributional justice concerns since they are aimed at the most vulnerable population. It can therefore be more easily justifiable from a political standpoint, especially since food aid programs already exist and are generally accepted by the population.[25] Moreover, this approach is cost-efficient since, as it helps to relieve negative externalities, it is at the same time supporting the growth of vendors and producers, and ultimately potentially increasing competition in the grocery retail market.

Some might criticize that subsidizing public markets would lead to a price increase in products sold. However, competition between vendors in the public market should prevent this. Even if consumers have more money to spend, vendors should compete on price to attract these consumers to their stand. Also, compared to large consolidated grocery chains, the distribution chains in public markets are highly diversified, as vendors operate independently. This decentralized nature of public markets reduces the likelihood of collusion on prices. Additionally, if subsidies increase competition in the grocery retail market, supermarkets should be incentivized to compete by lowering prices which would be beneficial for even non-subsidized consumers.

In sum, subsidizing public markets through consumers seems the most cost-efficient way to potentially increase competition in the grocery retail market. Indeed, investing directly in public markets would not necessarily support the growth of producers considering that entry barriers are already low. Moreover, subsidizing vendors would constitute a complex and possibly costly endeavour since many factors are to be taken into consideration to ensure that the subsidy would be used for its purpose. Supporting consumers to go to the public market seems, then an efficient way to invest in public markets without intervening directly in the supply side of the market.

i) Monitoring and evaluation - Operational Objectives

After finding that subsidizing consumers in public markets would be the preferred complementary option due to its cost-efficiency, it is essential to establish operational objectives to give a potential framework to governmental agencies that would like to apply this idea. As for the prior objectives set, S.M.A.R.T. criteria will be used.

The primary objective could be to monitor the potential increase in demand for public markets. A sustained increase in demand would indicate that the consumer's subsidy is yielding the desired effect. It's important to note that other variables could also impact the demand for public markets. Nevertheless, it should be feasible to analyze the demand before the implementation of the subsidy and its evolution over the years. Specifically, the rising demand can be gauged by observing an increase in sales. Sales directly mirror consumer spending at public markets and thus serve as a viable metric for assessing the potential increase in demand for goods sold at public markets. Obtaining sales data should not incur much transaction costs since sellers have access to this metric very easily and would just need to disclose to their public market their sales amount. This information could be relayed to the appropriate governmental agency. It would also be important to consider food inflation when evaluating the revenue increase to ensure that the effects are indeed caused by higher demand.

The second operational objective could be to monitor food prices in public markets. A decrease in the price may indicate that vendors either decrease their profit margins, acquire new technologies which lower costs or benefit from economies of scale. This thesis argues that the most plausible option would come from economies of scale which would be generated by an increasing demand in the case the proposed subsidy works. Producers could then produce higher quantities at a lower average cost until their marginal cost exceeds their marginal revenues. Subsequently, an increasing demand for supply should not lead to decreasing profit margins as vendors should be strengthening their positions in the market. Furthermore, the likelihood of food producers investing in new technologies to reduce prices in the short term following the introduction of a subsidy is low. In 2022, Canadian farms' average net operating income decreased by 2.9%, indicating limited liquidity for investment in new technologies.[64] However, gathering data on food prices in public markets across Quebec could be a costly endeavour taking a lot of time which would generate opportunity costs. Additionally, transaction costs would be high for the agency to gather information from all vendors. Acquiring this information could still yield greater effectiveness despite associated costs, as Statistics Canada already collects data on the average monthly retail prices of various food items in supermarkets.[65]

In addition to the aforementioned benefits, conducting such research would enable a comparison of food prices between supermarkets and public markets to assess whether price fluctuations occur consistently. Discrepancies in price changes could reveal differing economic resilience in favour of one market over the other. Typically, smaller vendors in public markets may be more vulnerable to economic uncertainties compared to larger grocery chains. However, more information on price fluctuations could provide better insights into the actual strengths and potential of independent vendors in consolidating their position within the market.

If a coupon system is used to subsidize consumers, a last operational objective could be to track the actual use of these coupons. This goal can be achievable since the governmental agency only has to compare the number of emitted coupons with the number of redeemed coupons for payment from sellers. This objective would help to assess the level of compliance of consumers with the program. Every year, this assessment could be easily done.

These stated objectives will allow for the collection of data that can be utilized for evaluation beyond the mere factual assessment of the policy's impact. It will also facilitate concluding the causal effects of the intervention on competition within the grocery retail market. Additionally, many evaluation methods can be used (randomized control trials, matching methods, regression discontinuity design, differences-in-differences, etc).[6] For instance, the differences-in-differences method could be utilized if the subsidy is initially introduced in specific regions of Quebec. This would allow for the comparison of the variations in public market demand between subsidized and non-subsidized regions.

d) Public Market Subsidy Example

Lastly, to provide context for this thesis's hypothesis, a subsidy program for public markets that was recently implemented in British Columbia (**"BC"**), Canada will be presented. The BC Farmers' Market Nutrition Coupon Program (**"FMNCP"**) provides coupons of $27/week[viii] to lower-income families, pregnant people, and seniors for public markets.[66] The recipients could participate in the program for a maximum duration of 16 weeks. These coupons were not distributed directly by the government or the BC Association of Farmers' Markets (**"BCAFM"**) but through organisms that work with the target populations. With these coupons, people could purchase local food, such as vegetables, fruits, nuts, eggs, dairy, herbs, vegetable and fruit plants, meat and fish.[67]

The program was first financed by regional health authorities but then by the Ministry of Health of BC in 2012. In 2023, the program touched over 96 communities and reached

[viii] In 2022.

over 32,000 individuals from over 10,000 households in BC.[68] In 2023, the government of BC gave $12 million to support the program.[68] On the supply side, 1259 farmers accepted coupons for a total of $3.6M of direct coupon revenue to farmers.[68] Additional sales revenue to vendors represented $2M and the redemption rate of coupons was 85% which demonstrates a high compliance rate to the program.[68] These results show that subsidizing consumers in public markets can truly support the growth of vendors and producers and demonstrate that supporting the demand creates a snowball effect on the amounts spent by consumers in public markets.

Moreover, a study on the impact of BC farmers' market found that 80% of market shoppers spend at least 47.17$ at neighbouring businesses, that average shopper spending is $42.50 and that the markets gathered over 3.72 million market shoppers in 2023.[68] Furthermore, 86% of businesses interviewed in the study reported that their neighbouring farmer market has a net positive effect on their business. The annual economic impact of BCAFM member markets is $232.9 million. A 28% growth from 2012 to 2023.[68] The presented findings demonstrate that subsidizing consumers in public markets can significantly influence local economies and benefit both vendors and neighbouring businesses. This underscores the relevance of implementing such initiatives to stimulate competition in the grocery retail market. Introducing these approaches in underserved areas in Quebec has the potential to effectively support local producers and enhance food accessibility for consumers. Furthermore, the substantial expansion of public markets in BC suggests a growing demand that is not solely linked to the subsidy program, indicative of organic market growth. These conclusions support the principles that subsidizing consumers in Quebec's public markets could be a complementary cost-effective solution to increasing competition in the grocery retail market.

5) Conclusion

In conclusion, subsidizing consumers in public markets has the potential to stimulate local economies and increase competition in the grocery retail market. The BC FMNCP illustrates such benefits in providing significant assistance to vulnerable communities while supporting local vendors and businesses. This indicates that a similar framework could be adopted by Quebec. It would offer an adaptable model to strengthen local economies and bolster market competition.

Canada's retail grocery is dominated by a few firms, which might result in high prices and low consumer welfare. Consumers in rural areas are left with little choice for food while increased food costs make this even worse. Introducing subsidies into public markets can be seen as an efficient intervention to increase market competition and improve allocative efficiency. Lowering consumer cost barriers and increasing the attractiveness of these public markets would make them more popular among consumers, thus limiting dominance by leading grocers through dispersing economic activities across various actors in the grocery retail market.

The analysis of market failures, externalities and the concept of distributional justice further justifies the need for intervention. The current market structure, dominated by a few large grocers, results in inefficiencies and inequities that disproportionately affect lower-income consumers. By promoting public markets, subsidies could help address these disparities, providing a more equitable distribution of resources and supporting the broader public interest.

It has been demonstrated that subsidizing public market consumers could generate substantial economic benefits, as evidenced by the growth of public markets in BC and revenues made by vendors. This model has the potential to support local producers, increase vendor revenues, and stimulate adjacent businesses. By subsidizing consumers to these markets, they are encouraged to purchase locally, thus keeping money within the community and promoting a more sustainable and resilient local economy.

Moreover, public markets provide a viable platform for small and part-time farmers to reach consumers, thus promoting local economic development and boosting food accessibility in underserved areas. This is particularly significant in rural regions where food accessibility is limited. In addition, subsidies towards these markets can help close the gap between food availability and affordability ensuring all Quebec citizens have access to healthy food.

The implementation of a subsidy should be made through a framework with defined objectives for clear directions. These will then be handy for monitoring and evaluating the benefits of the economic instrument. Policymakers should look into the European Commission's *Better Regulation Toolbox* to gather insights on the efficient delivery of policies.

In summary, implementing consumer subsidies in Quebec's public markets offers a promising strategy to bolster local economies, support small producers, and increase competition in the grocery retail market. The benefits of such an approach extend beyond economic gains, contributing potentially to improved public health, greater food security, and a more just and equitable society. Future research should focus on identifying the most effective behavioural nudges to optimize consumer choices in public markets, ensuring the long-term success and sustainability of such initiatives. By adopting these measures, Quebec can pave the way for a more competitive, fair, and resilient grocery retail market.

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