

Opportunities and Risks for Distilled Spirits Manufacturing in Ontario

Research Report
September 2019



CANADIAN CENTRE FOR
ECONOMIC ANALYSIS

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About This Report

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EXECUTIVE SUMMARY

Distilled spirits manufacturing in Ontario provides significant economic, employment and fiscal benefits to the province. Previous research on the subject performed by CANCEA estimated that the distillery industry has a gross total output of \$1.1 billion, which corresponds to a contribution to provincial GDP worth half a billion dollars. Additionally, over 4,600 jobs in distilled spirits manufacturing and related industries are supported by the industry, 75% of which pay wages above the median.

In Ontario, distilled spirits manufacturing is highly export-oriented; currently, 74% of Ontario's production is exported. These exports drive industrial production and income growth for Ontarians. Nonetheless, local sales remain essential to the health of the distillery industry in Ontario, as the revenue from local sales supports local producers' ability to export their products by reducing their exposure to the fixed costs of production. Sales in Ontario support an estimated 30% of the production of distilled spirits in the province. As a result, major changes in the local demand for distilled spirits will impact the margins that local producers earn and thus their fiscal capacity to reinvest in their business.

Distilled spirits manufacturers are sensitive to structural shifts in the environment in which they operate. Changing consumers' access to distilled spirits relative to other types of beverage alcohols is one such change that can have potentially significant repercussions for the industry. Proposed policy changes to further extend the sales of beer and wine into new retail channels but exclude distilled spirits can impact the local demand for spirits by rendering these less convenient to access relative to other types of beverage alcohols. According to recent research, this is likely to cause a substitution effect to the disadvantage of spirits.

To understand the risks to the industry posed by structural shifts, scenario and sensitivity analyses were conducted to examine the economy's exposure to changes in the levels of exports, variations in local employment and changes to the market shares of different types of beverage alcohol.

The results of the sensitivity analysis of export and local employment levels show that:

- The continued growth of exports represents an important economic opportunity for Ontarians. As the level of international exports rises, gains in employment and GDP scale up as well. To illustrate, a 25% increase in international exports could increase the industry's GDP contribution by \$102 million over current trends and generate 9,500 job-years over the coming decade.
- Local employment is sensitive to changes in sales, both domestically and internationally. The analysis found that if 50 jobs are created in the distillery industry, this could support over 4.25 times that number in related industries in the province, and the multiplier increases with the number of jobs created in the industry. For example, an expansion that adds 150 permanent jobs (i.e. 1,500 job-years over the next ten years) would generate 4.5 times that number in additional jobs in the next ten years, adding up to 8,000 job-years. This sensitivity can also work in reverse – for every direct job loss, up to 4 additional jobs are put at risk across Ontario. In total, the closure of a 150-employee plant would put 7,130 job-years at risk over the next decade.

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The change in market access scenario considered the economic implications of an increase in the market share of new channels selling beverage alcohol (i.e. grocery stores, box stores and corner stores) to one-third of the total beverage alcohol retail market, which is similar to the share seen elsewhere in the country such as in British Columbia. If distilled spirits are excluded from these new channels, this represents a reduction in total market access. In this scenario, consumers' substitution away from distilled spirits could cause distilled spirits sales to decline by \$415 million annually. In addition, by the end of 2029, the value of domestic sales in this scenario could be 23% lower than the baseline and continue to decline further in subsequent years.

A change in market access risks reducing the GDP contribution of the distillery industry by 25% over the next ten years. Furthermore, every year of reduced sales could trigger a further decrease in the GDP contribution, meaning that by the end of 2029, over 40% of the annual GDP contribution by the distillery industry could be at risk. The reduced economic activity would be expected to lead to changes in employment in distilled spirits manufacturing and related industries. The number of jobs that would be at risk annually is estimated to be in excess of 1,500. This number would also increase with every year of reduced market access. Consequently, by the end of 2029, the number of jobs at risk could more than double.

A reduction in market access also has revenue implications for both levels of government, because it can affect how much governments receive in the form of corporate, income and sales taxes, as well as excise duties and the dividend remitted by the LCBO to the province. By 2030, the cumulative total foregone government revenue could near one billion dollars (58% provincial, 42% federal). At the end of the year 2029, the estimated annual amount of government revenue that could be at risk under a reduced market access scenario is \$151 in provincial revenue and \$108 in federal revenue.

Structural changes to the environment that could cause bottling and manufacturing facilities to close or exports to decrease or stagnate put the important growth potential of local spirits manufacturing at risk. Current changes to beverage alcohol policy in Ontario risk triggering important structural shifts in the beverage alcohol market, and consequently, to the local spirits manufacturing industry. Excluding distilled spirits from the expansion of beverage alcohol sales to new channels would cause a shift in market share, since access and availability are key drivers of consumers' purchasing decisions. This would cause a downward shift in local demand, reducing the value of distilled spirits sales by \$415 million annually, on average, over the coming decade. Such a change in demand could cause the industry to contract, putting jobs at risk in the province.

1.0 BACKGROUND

1.1 INTRODUCTION

Distilled spirits manufacturing in Ontario contributes to the economic prosperity of Ontario by providing economic, employment and fiscal benefits to the province. As presented in the report “Economic Contributions of Distilled Spirits Manufacturing in Ontario”, this amounts to an annual contribution of:

- \$1.1 billion of gross output;
- \$501 million of provincial GDP;
- Over 4,600 jobs (including employment in the industry and in related industries), 75% of which pay wages above the median.

These continued contributions depend on the existence of an environment that provides the opportunity to distilled spirits manufacturers in Ontario to foster continued growth. Major factors that can influence the environment and cause structural changes in demand or supply of distilled spirits include changes in domestic and international demand, policy changes and regulation.

Currently, the market for beverage alcohol in Ontario is undergoing a structural shift caused by policy changes allowing certain grocery stores to sell beer and wine and proposed changes to allow additional grocers as well as big box and corner stores to do the same. These ongoing changes, which began in 2016, can cause significant changes in market access and consumer demand. Similar changes have been seen in other provinces, notably British Columbia and Quebec. In British Columbia, the expansion of beverage alcohol sales was allowed in 2002 with spirits introduced into private cold beer and wine stores and again with wine in certain grocery stores in 2014 following a public consultation (PWC, 2018). In Quebec, the sale of beer and Quebec-bottled wine is permitted in grocery stores and corner stores, while distilled spirits can only be sold through SAQ retail outlets, which are run by the provincial crown corporation responsible for the trade of beverage alcohol in Québec. SAQ and SAQ Agency stores represent ten percent of the retail outlets selling beverage alcohol in the province (PWC, 2018).

Using stock and flow statistical modeling of the cycle of sales, production decisions and employment, this report aims to quantify how these contributions may diverge from current trends due to possible risks and opportunities the industry may face, which include the following scenarios:

- Changes in the level of exports of distilled spirits manufactured in Ontario;
- The closure or expansion of existing manufacturing and/or bottling facilities in Ontario; and
- Unequal market access to spirits, compared to other beverage alcohols.

1.2 OPPORTUNITY AND RISK SCENARIOS

The future contribution of distilled spirits manufacturing in Ontario to provincial prosperity will depend on how the industry develops, as well as the policy environment distilled spirits manufacturers operate within. Scenario analyses provide a tool to understand and quantify the effects of changes in the industry

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and the policy environment. This study considers how three different risk and opportunity scenarios will affect this contribution in the next decade by comparing outcomes under each scenario to a baseline, which represents a continuation of status quo trends. This study considers the following three categories of scenarios relative to the status quo baseline:

1. Changes in international export levels;
2. Expansions or closures of manufacturing facilities; and
3. Changes in retail market access.

These scenarios are run within CANCEA's statistical analysis platform and compared against a baseline to demonstrate the likely outcomes under each scenario and the broader impacts across Ontario's economy. These impacts are reported in terms of changes in economic indicators relative to the baseline, including GDP, gross output, number of jobs and government revenue contributed by the distillery industry.

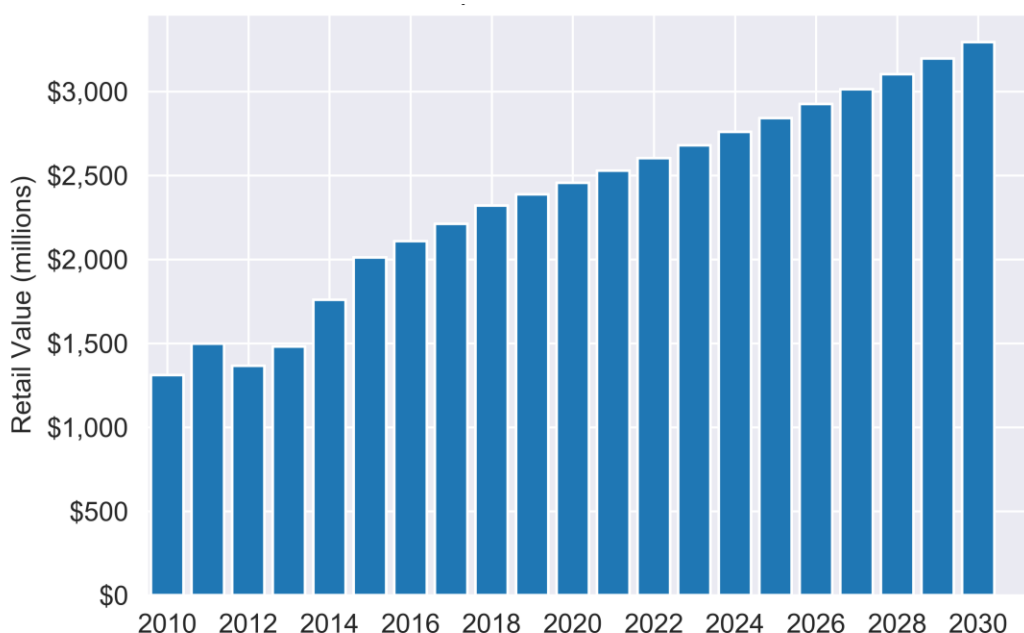
2.0 QUANTIFYING THE RISK AND OPPORTUNITIES TO DISTILLED SPIRITS MANUFACTURING

2.1 STATUS QUO GROWTH

In order to understand the impact on Ontario's prosperity of a given change in the environment in which Ontario distilled spirits manufacturers operate, it is first necessary to determine a baseline against which to measure changes over the coming decade. The baseline used in this report represents a continuation of the trends of the past several years, assuming no changes to policy relative to 2017 (i.e. prior to the sale of beer and wine, but not spirits into certain grocery stores).

Over the past several years, while consumer preferences for beer and wine have changed, the preference for distilled spirits has remained fairly constant, as measured by the share of the value of sales of distilled spirits in total beverage alcohol sales. In Ontario, households account for about two-thirds of total demand, while businesses (e.g. restaurants) account for the remainder. Keeping past market trends constant, the retail value of the total sales of distilled spirits in Ontario could increase by about 45% by 2030. The historical and forecasted values of retail sales of distilled spirits up to 2030 (at the current trend of approximately 3.8% annual growth) are presented in Figure 1.

Figure 1 Retail value of all sales of distilled spirits in Ontario

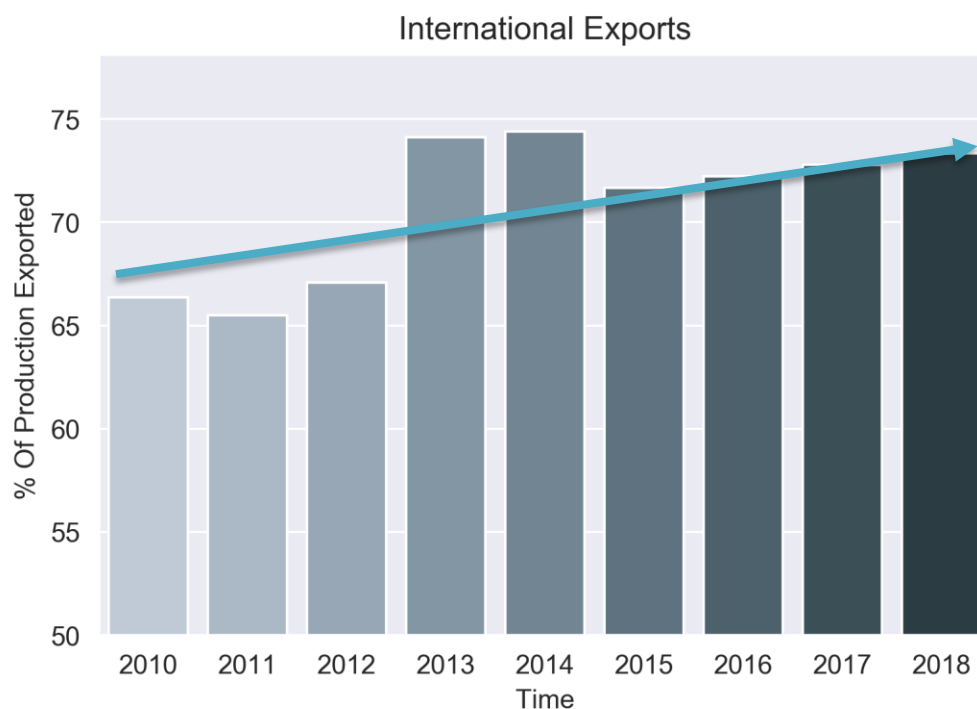


2.2 CHANGE IN EXPORT LEVELS

2.2.1 BACKGROUND

International exports of distilled spirits produced in Ontario have followed an increasing trend in the past decade, as shown in Figure 2. Currently, 73% of distilled spirits produced in Ontario are exported. Exports drive industrial production and income growth and are a means through which Canadians gain access to foreign funds. International exports of distilled spirits from Ontario are particularly strong in comparison to other types of beverage alcohol produced in Canada. In fact, the value of the distilled spirits produced for export in Ontario alone exceeds all Canadian beer and wine exports combined (Canadian Centre for Economic Analysis, 2019).

Figure 2 Percentage of value of distilled spirits manufactured in Ontario exported



The scenarios highlighting changes in export levels serve to highlight the local economic and social impacts of changes in the foreign demand for distilled spirits produced in Ontario. In these scenarios, domestic demand is assumed to grow with the population, and the change in exports relative to the average over the last five years consists in:

- a) An increase in the value of exports by 5%, 10%, 25% and 50% by 2030.
- b) A decrease in the value of exports by 5%, 10%, 15%, 25% and 50% by 2030.

2.2.2 RESULTS

Modeling the effect of different international export levels provides insight into the potential local economic and social impacts of a change in the foreign demand for distilled spirits produced in Ontario or of a structural change that would impact Ontario producers' export capacity. The cumulative ten-year difference relative to the baseline caused by changes in export levels on the GDP contributed by the distillery industry is presented in Figure 3. The impact on the employment contributed by the industry is shown in Figure 4.

Figure 3 Cumulative difference in GDP contributed by distilled spirits manufacturing by 2030

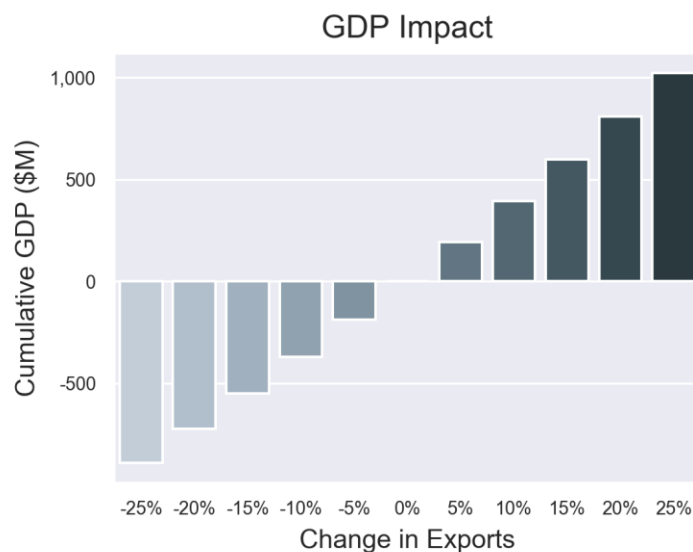
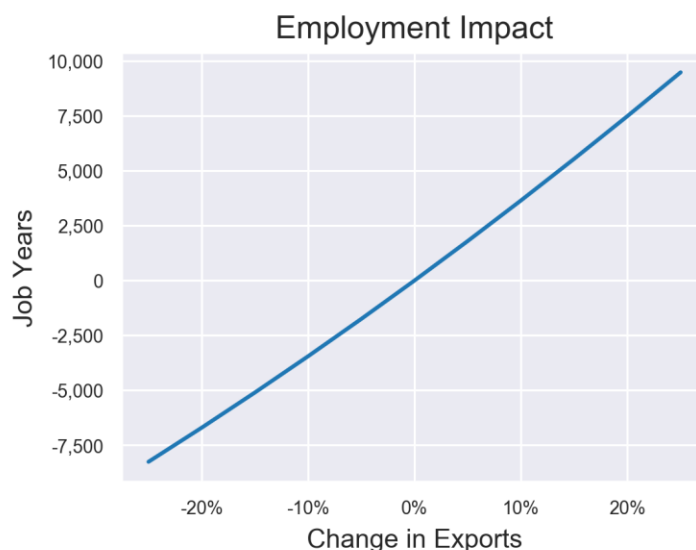


Figure 4 Cumulative difference in jobs contributed by distilled spirits manufacturing by 2030



Results show that if exports of distilled beverages were to grow by 25% over the next ten years, the industry's annual contribution to GDP could be \$102 million higher than if current trends were to persist. Furthermore, this rise in exports could generate more than 9,500 job-years over the coming decade. This scenario shows that the gains in employment and GDP contribution scale up as exports rise. Conversely, a decline in exports would result in the industry contributing fewer jobs and less to provincial GDP. A 25% fall in exports would result in 8,300 fewer job-years by 2030 than under the baseline. Additionally, this would put \$89 million of the industry's annual GDP contribution at risk

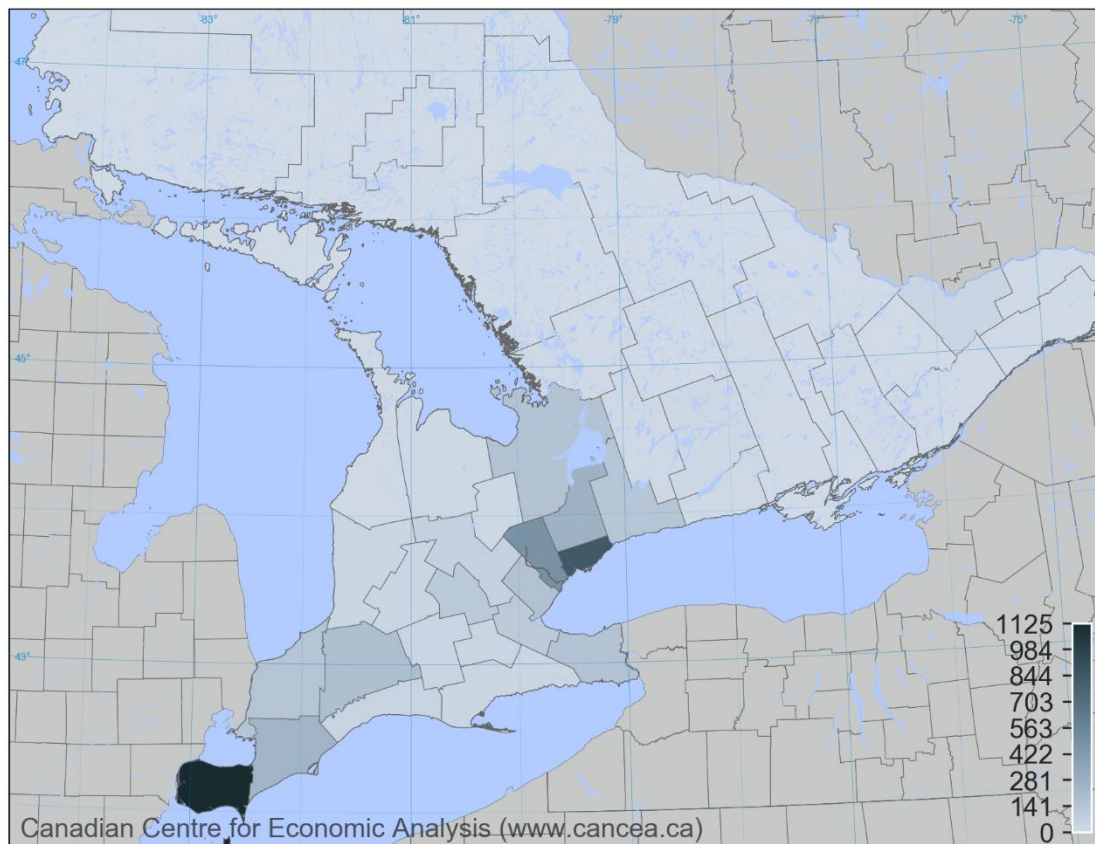
2.3 EXPANSION OR CLOSURES OF MANUFACTURING FACILITIES

2.3.1 BACKGROUND

Ontario has recently experienced closures of major facilities in the distilled spirits industry, including the closure of a major bottling plant in 2017 that eliminated 51 jobs in the industry. What would be the impact if others were to follow suit or conversely, to expand?

Changes in the policy environment can affect where manufacturers decide to conduct operations and whether to expand, contract or to close facilities. These changes not only affect those employed directly, but also those in jobs in related industries. Jobs that are directly created and those supported by the distillery industry are relatively high-paying; the average wage per full-time equivalent is \$55,060, and 75% of employment pays above the median (Canadian Centre for Economic Analysis, 2019). The regional distribution of jobs contributed by the industry is shown on a map in Figure 5. The expansion or closure of manufacturing facilities scenarios provide a measure of how such changes could affect local prosperity.

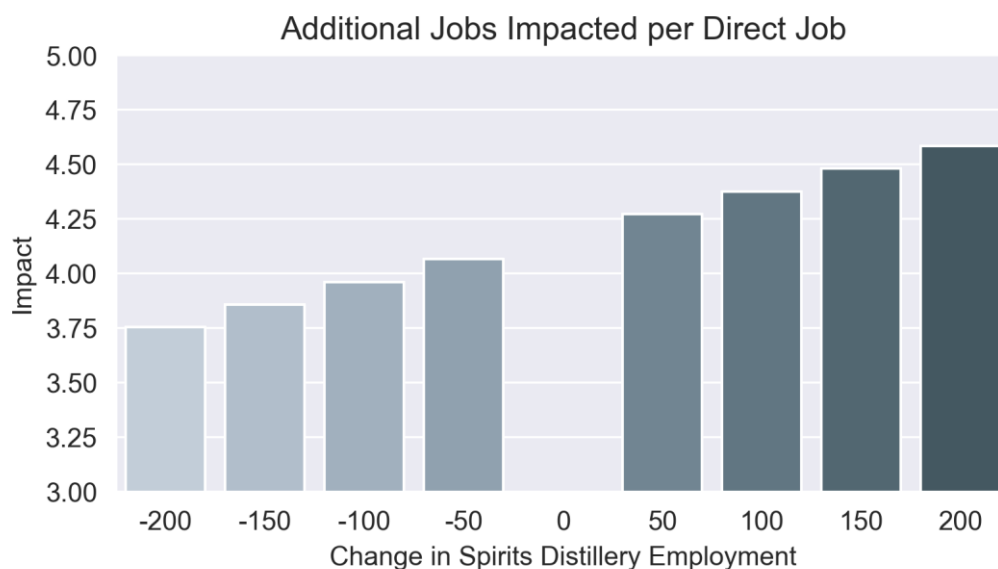
Figure 5 Total jobs contributed by the distillery industry in Ontario by census division, 2016



2.3.2 RESULTS

Expansions or closures of major distilled spirits manufacturing facilities affect local communities through job creation or job loss. For instance, the expansion of a manufacturing facility would usually cause an increase in local employment and increase the demand for inputs, which in turn provides an employment boost to local businesses who supply that facility with inputs. This causes ripple effects in the entire community which can be quantified by modeling the effect of the addition or loss of jobs in the industry.

Figure 6 Marginal effect of job creation/losses in distilled spirits manufacturing



Results of the analysis show that for every job lost in spirits manufacturing, between three and four additional jobs in supported industries could also be at risk. Conversely, over four additional jobs could be created for each additional job in the distillery industry.

Figure 6 presents the average change in the number of related jobs for every 50 jobs added or lost in distilled spirits manufacturing. The average change increases with the total size of the industry, and therefore, its labour force. This is because a smaller distillery industry has fewer connections in the supply chain and a smaller impact on the economy as a whole than a larger industry with many more employees. For this reason, as shown in the figure, the addition of 50 jobs in the industry could support over 4.25 times that number in related industries, while the addition of 200 jobs could create a job multiplier of 4.6. To illustrate this effect in a different way, the closure of a 150-employees facility would put 7,130 additional job-years at risk over the next decade, while an expansion that adds 150 permanent jobs (1,500 job-years over the next ten years) would generate an additional 8,000 job-years in related industries.

2.4 CHANGE IN MARKET ACCESS

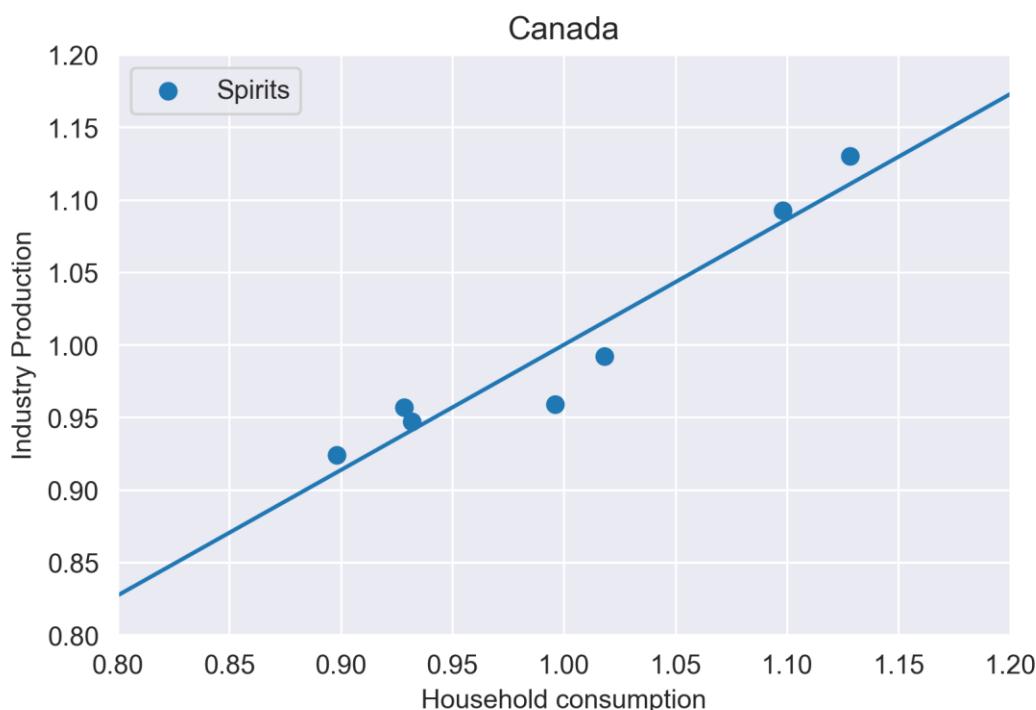
2.4.1 BACKGROUND

Local demand supports 30% of the production of distilled spirits in Ontario, which in turn supports the ability of producers to export their products by reducing their exposure to the fixed costs of production. As a result, major changes in the local demand for distilled spirits will impact the margins that local producers earn and thus their fiscal capacity to reinvest in their business.

In Canada, the production and local consumption of distilled spirits have historically risen in tandem. The strong relationship between supply and demand is illustrated by scatterplot in Figure 7 (consumption and production are normalized relative to the historical average between 2011 and 2017). Given this strong

historical trend, if the aggregate local household consumption continues to increase, the production of distilled spirits (and exports) will tend to increase along with it in a stable policy environment, and vice versa.

Figure 7 Domestic household consumption and production of distilled spirits relative to 2011-2017 average



A change in local market access can impact local demand by rendering certain types of beverage alcohol more convenient to access than others. Policy changes in the last few years that have allowed the sale of certain types of beverage alcohol, namely beer and wine, in grocery stores, and proposed changes that would allow sales of these beverages in big box and corner stores as well have put distilled spirits at a relative disadvantage. Previous research has shown strong evidence that consumers substitute between different kind of beverage alcohols if a tax is imposed that treats them differently (Saffer, 1989) and that there is a substitution effect away from distilled spirits towards other beverage alcohol types when the sale of distilled spirits is under state monopoly (Nelson, 2003). Such an effect does not indicate a change in consumer preference per se but rather be attributable to the different policy treatment received by distilled spirits.

The change in market access scenarios consider the impact on Ontario's prosperity if new channels such as grocery and corner stores grow to account for one-third of the total beverage alcohol retail market from effectively 0% in 2017 and:

- New channels are permitted to sell distilled spirits, with their sales resembling the LCBO product shares within its retail stores.

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- b) The new channels are not permitted to sell distilled spirits and substitution with wine and beer occurs.

In both cases, the total market share of the new channels is assumed to reach 33%, similar to rates seen elsewhere in the country such as British Columbia. If all beverage alcohol is given equal access to the new channels, sales of distilled spirits would make up an estimated 29% of the total value of beverage alcohol retail sales in 2030. Conversely, under the unequal market access scenario, the market share of distilled spirits in 2030 would drop to 20% due to substitution effects. Figure 8 shows the historical and projected market shares of different beverage alcohol types up to 2030 under the equal access scenario on the left and the unequal access scenario on the right. The difference in the value household sales of distilled spirits between the two scenarios is shown in Figure 9.

Figure 8 Market share of spirits in beverage alcohol market with equal access (left) and with unequal access (right) to new channels, 2030

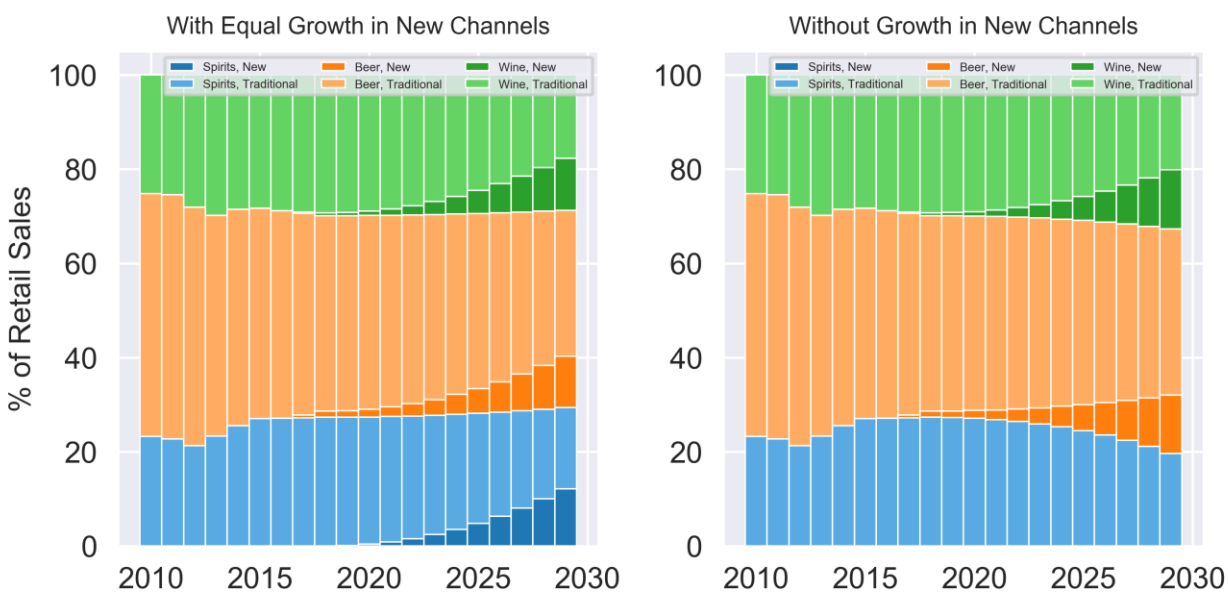
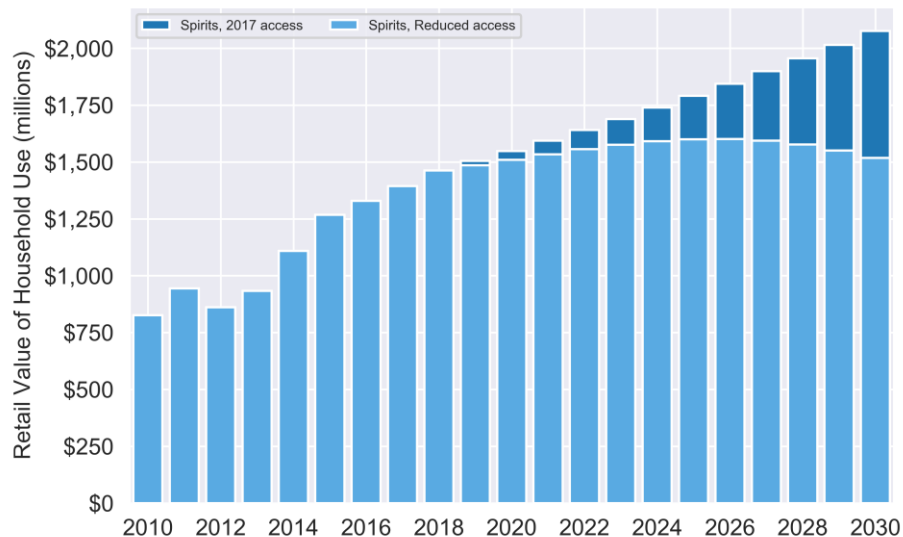


Figure 9 Annual household purchases under the two market access scenarios

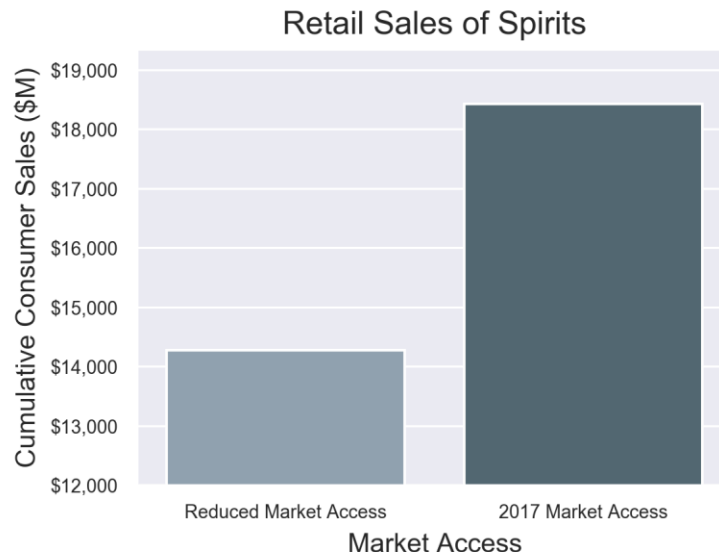


2.4.2 RESULTS

Expanding consumers' access to beverage alcohol through new channels, including grocery stores, big box and corner stores, while excluding distilled spirits from this expansion, is likely to cause a substitution effect between beverage alcohol types. Some consumers who prefer distilled spirits are likely to make a switch to other beverage alcohol types out of convenience. The economic consequences over the coming decade of including and excluding distilled spirits from the continued expansion of new channels are presented in this section.

Figure 10 shows the cumulative retail value of all distilled spirit sales by 2030 in the reduced market access scenario (i.e. distilled spirits are excluded from the expansion of beverage alcohol sales through new channels) and the forecasted value at current trends, i.e. no change in market access since 2017.

Figure 10 Cumulative retail value of distilled spirit sales by 2030.



The substitution effect away from distilled spirits in the reduced market access scenario could cause the value of distilled spirits sales to decline by \$415 million annually relative to the baseline. In addition, by the end of 2029, the value of domestic sales in the reduced market access scenario could be 23% lower than the baseline and continue to fall further into the future.

A reduction in sales of distilled spirits would impact spirits production in Ontario, with consequences for provincial GDP. Figure 11 shows that the difference in the cumulative GDP contributed by the distillery industry under the reduced market access scenario and the baseline could amount to \$1.6 billion by 2030. In other words, over 25% of the potential GDP contribution to Ontario (including exports) from distilled spirits manufacturing could be a risk. This foregone GDP contribution is an average over the period. However, every year of reduced sales could trigger a further decrease in GDP contribution, which means that by the end of 2029, 41% of the annual GDP contribution by the distillery industry at risk.

Figure 11 Cumulative GDP contributed by the distillery industry by 2030

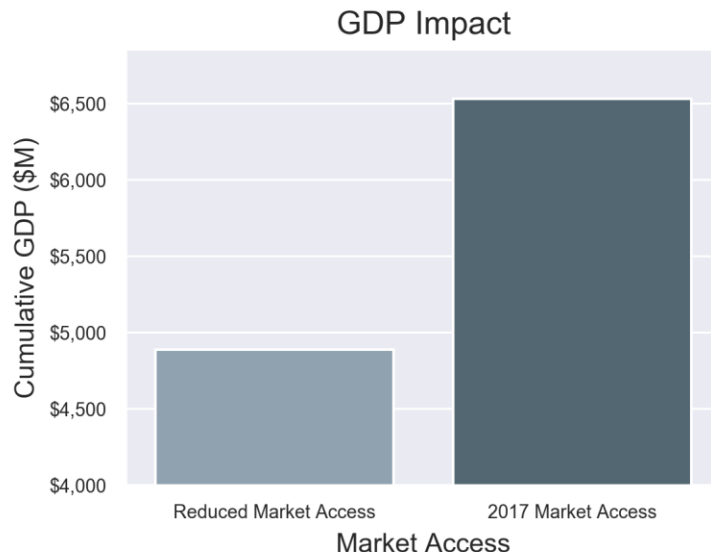
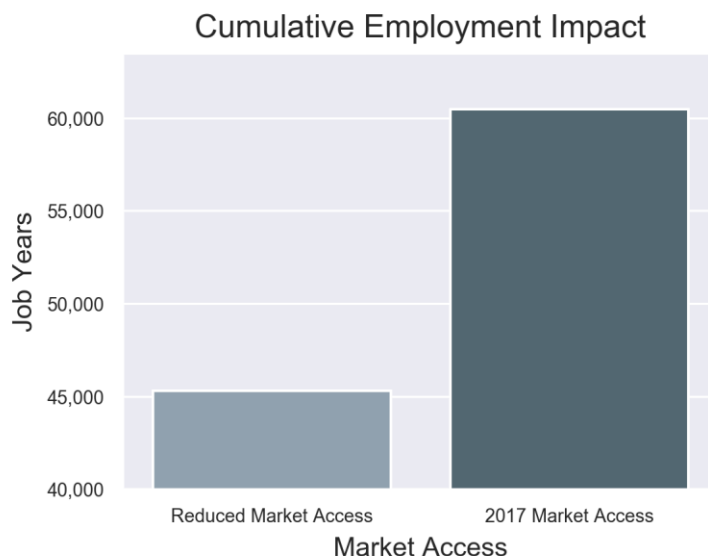


Figure 12 presents the employment impacts associated with a reduction in market access. Annually, the average number of jobs at risk is estimated to be in excess of 1,500. However, the number of jobs at risk increases with every year of reduced market access, meaning that at the end of 2029, the number of jobs at risk in that year could reach 3,100.

Figure 12 Cumulative job-years contributed by distilled spirits manufacturing by 2030

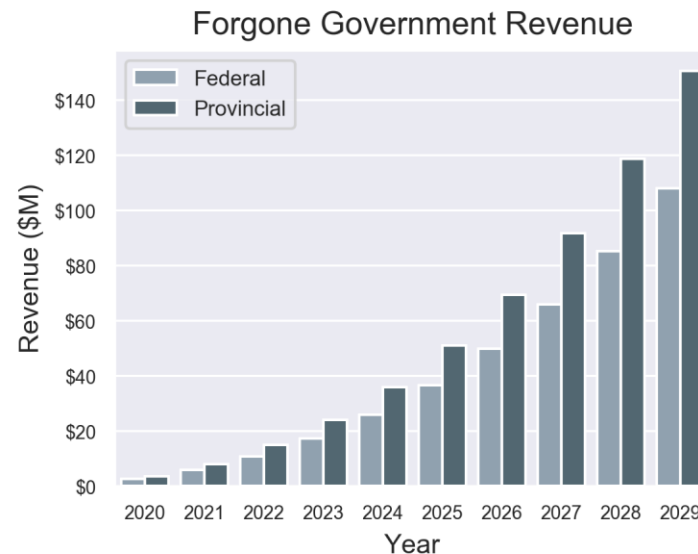


In addition, a reduction in the sales of distilled spirits, in industry employment and in GDP contribution would impact the revenue that the government receives from distilled spirits manufacturing in Ontario through corporate, income and sales taxes, as well as through excise duties and the dividend remitted by the LCBO. The impact that a reduction in the market access for distilled spirits could have on government

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revenue is presented in Figure 13. Similarly to the trend seen with sales, GDP contribution and employment, every consecutive year of reduced market access would increase the potential loss in government revenue. The revenue foregone by both levels of government at the end of the year 2029 could reach \$259 million (\$108 million of federal revenue, \$151 million of provincial revenue). Cumulatively over the course of the decade, \$408 million of federal government revenue and \$568 million of provincial government revenue may be lost.

Figure 13 Foregone government revenue from distilled spirits manufacturing, by 2030



It is important to note that a policy-driven reduction in market access for distilled spirits would cause a structural change in the domestic demand. This scenario could, therefore, trigger other risks to the industry such as stunting capital investments into developing the industry's exporting capacity, innovation, new market development, productivity improvements and increasing the likelihood of plant closures.

3.0 CONCLUSIONS

The continued growth of local distilled spirits manufacturing has the opportunity to contribute to Ontario's economic success given the right economic environment. This analysis demonstrates that the continued growth of exports represents an important economic opportunity for Ontarians, considering that spirits manufacturing in Ontario is export-heavy. As the level of international exports rises, gains in employment and GDP scale up as well. Cumulatively, a 25% increase in exports could increase the industry's GDP contribution by \$102 million over current trends and generate 9,500 job-years over the next decade.

Similarly, economic impacts scale up as the industry grows in size. As the sector grows and the number of manufacturers of distilled spirits increases in Ontario, the number of supply chain connections in the industry multiplies, as does the number of people whose income is supported by the industry. This creates larger ripple effects in the economy, which means that any additional growth will have even larger effects in terms of GDP and employment.

Structural changes to the environment that could cause manufacturing or bottling facilities to close or exports to decrease or stagnate put the important growth potential of local spirits manufacturing at risk. Current changes to beverage alcohol policy in Ontario risk triggering important structural changes to the beverage alcohol market, and consequently, to the local spirits manufacturing industry. Excluding distilled spirits from the expansion of beverage alcohol sales in grocery stores and corner stores would cause a shift in market share, since access and availability are key drivers of consumers' purchasing decisions. This would put local demand at risk and could reduce the value of sales of distilled spirits by \$415 million annually, on average, over the coming decade. Such a change in demand could cause contractions in the industry, putting 1,500 jobs at risk per year in the economy.

The risks to the industry are particularly salient to the local economies of regions within Ontario that rely heavily on distilled spirits manufacturing and to local suppliers, notably in the agricultural sector. Market access policies determine in large part the future of local manufacturing industry and whether future generations of Ontarians will continue to enjoy its economic benefits.

A. REFERENCES

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- Saffer, H. (1989). *Alcohol consumption and tax differentials between beer, wine and spirits*. (No. w3200), National Bureau of Economic Research.

B. DATA SOURCES

Key Statistics Canada CANSIM tables include:

- 36-10-0478 Supply and use tables, detail level, provincial and territorial (x 1,000)
- 10-10-0010 Sales of alcoholic beverages types by liquor authorities and other retail outlets, by value, volume, and absolute volume
- 36-10-0013 Multipliers Summary Level,
- 36-10-0595 Multipliers Detailed Level,
- 11-10-0223 Household spending by income quintile,
- 11-10-0224 Household spending by household type,
- 36-10-0438 Supply/use tables, summary level
- 36-10-0478 Supply/use, detailed level
- 11-10-0012 Distribution of income by census type
- 11-10-0033 Economic dependency profile by income and sex
- 11-10-0019 Economic dependency profile of census families by family type and source of income
- 36-10-0450 Revenue, expenditure and budgetary balance - General governments, provincial and territorial economic account
- 36-10-0221 Gross domestic product, income-based, provincial and territorial, annual
- 36-10-0222 Gross domestic product, expenditure-based, provincial and territorial, annual
- 36-10-0587 Distributions of household economic accounts, income, consumption and saving, by characteristic