Economic analysis of single-event sports betting legalization

February 8, 2021



Contents

Executive summary	•
Summary of study mandate	3
Overview of sports betting in Canada	4
Sizing Canada's future sports betting market	Ę
Economic implications	6
1. Introduction	8
1.1 Study background	8
1.2 Study objectives	8
1.3 Approach overview	ę
1.4 Glossary	ę
1.5 Report structure	10
2. Overview of sports betting in Canada	1.
2.1 Industry composition	11
2.2 Canada's regulated market for sports betting	12
2.3. Canada's unregulated "grey market" for sports betting	15
3. Sizing Canada's future market	18
3.1 Overview of market sizing approach	18
3.2 Proposed legislative changes and regulatory impacts to sports betting	18
3.3 Jurisdictional review and analysis	2
3.4 Market sizing scenario specification	23
3.5 Post-legalization market sizing scenarios for Canada	29
3.6 Market sizing results for Canada	3′
3.7 Sizing a more restrictive post-legalization market	33
4. Economic and fiscal implications	36
4.1 Overview of gambling taxation approaches	36
4.2 Modelling post-legalization gambling taxation impacts for Canada	37
4.3 Modelling other post-legalization economic impacts for Canada	39
4.4 Other socio-economic implications	41
Appendix A: Study considerations	44
Appendix B: Illustrative "black market" GGR impact	45
Appendix C: Web traffic analysis results	46
Appendix D: Summary of jurisdictional analysis	48
Appendix E: Post-legalization GGR impacts, provincial allocation	5′
Appendix F: Economic footprint results breakdown, by province	53

Disclaimer

The report is intended solely for use by the management of Compass Rose and is not intended or authorized for any other use or party. If any unauthorized party obtains this report, such party agrees that any use of the report, in whole or in part, is their sole responsibility and at their sole and exclusive risk; that they may not rely on the report; that they do not acquire any rights as a result of such access and that PricewaterhouseCoopers LLP does not assume any duty, obligation, responsibility or liability to them.

This report was developed in accordance with our engagement letter dated November 10, 2020 and is subject to the terms and conditions included therein.

Our work was limited to the specific procedures and analysis described herein and was based only on the information made available at the time we prepared the report. Accordingly, changes in circumstances after the date of this report could affect the findings outlined herein. We are providing no opinion, attestation or other form of assurance with respect to our work, and we did not verify or audit any information provided to us.

This information has been prepared solely for the use and benefit of and pursuant to a client relationship exclusively with Compass Rose. PwC disclaims any responsibility to others based on its use, and accordingly this information may not be relied upon by anyone other than Compass Rose.

PwC accepts no duty of care, obligation or liability, if any, suffered by any third party that reads our report or any excerpts from our report or statements describing our report. Further, no person or entity, other than Compass Rose and your client, shall place any reliance upon the accuracy or completeness of the statements made in our report. In no event shall PwC have any liability for damages, costs or losses suffered by reason of any reliance upon the contents of this report by any person or entity other than Compass Rose. This report can be made available to third parties and/or the public on the condition that it is provided in its entirety. Should you wish to publish excerpts of the report or refer to it, you will provide verbatim excerpts and summaries but will not provide any interpretations of our findings. You will add to any such publications a clear link to our entire report.

Executive summary

Currently, regulated sports betting in Canada is limited to "parlay bets", in which sports bettors are required to pick the winning team in multiple sports event contests to receive a payout. Unregulated or "grey market" sports betting is offered to Canadians through online sports wagering websites and mobile applications that are not regulated in Canada. These unregulated channels offer single-event sports betting as well as a range of sports betting products (e.g. "live betting") and are a significant and growing feature of Canada's sports betting market.

On November 26, 2020, the Government of Canada introduced legislation to legalize single-event sports betting in Canada, which is currently prohibited under Section 207(4)(b) of the Criminal Code. Under the newly proposed amendment to the Criminal Code, Bill C-13, each of Canada's provincial and territorial governments will have the discretion to conduct and manage single-event sports betting in their respective jurisdictions. If passed, and if provinces choose to incorporate single-event sports betting into their respective regulatory regimes, this change would allow Canadians to place a bet on the outcome of a single sports game (such as a hockey game or football match) in a regulated environment, either online or at physical facilities such as casinos, retail locations and other gaming outlets.

The legalization of single-event sports betting through Bill C-13, and the subsequent implementation of regulatory changes by Canada's provincial and territorial governments, presents an opportunity to create a more competitive gambling market in Canada that has the potential to erode existing "grey and black market" sports betting activity and to bring currently untaxed sports betting Gross Gaming Revenue (GGR)¹ under the regulatory and taxation purview of provincial and territorial governments. In addition, regulatory oversight within Canada's sports betting market can facilitate greater levels of player protection and sporting integrity and can guard against money laundering and other illegal activities that may occur in the "grey and black market".

Summary of study mandate

PricewaterhouseCoopers, LLP ("PwC", "we" or "us") has been commissioned by Compass Rose Group ("Compass Rose") to conduct an economic analysis related to the legalization of single-event sports betting in Canada.

For the purposes of this study, the potential future state of Canada's sports betting market after the legalization of single-event sports betting through Bill C-13 and the subsequent implementation of regulatory changes by Canada's provincial and territorial governments will hereafter be referred to as "post-legalization".

Specifically, this economic analysis:

- Provides a high level overview of Canada's existing sports betting market, including the current size and growth of its regulated and unregulated sports betting market.
- Summarizes the experience of international jurisdictions that have undergone regulatory changes in an effort to liberalize aspects of their respective gambling markets.

¹ Note that as GGR refers to stakes wagered by customers less winnings or prizes paid to customers. GGR represents a portion of the total stakes wagered by customers (e.g. \$100 million in GGR translates into \$1 billion in stakes when assuming a 10% operator margin or hold). In the gambling sector, GGR is broadly equivalent to "sales" or "revenue" and has hence been adopted as the key metric when reporting the size of various gambling market components throughout this study.

- Develops scenarios to estimate the potential size of Canada's sports betting market, post-legalization, based on the experiences of international jurisdictions.
- Outlines the economic and fiscal implications, with a focus on potential tax-base impacts, associated with the development of a future sports betting market in Canada, post-legalization.

Overview of sports betting in Canada

Sports betting activity in Canada can be broadly broken down into the following two market channels:

- 1. Land-based sports betting Sports betting activity that is conducted within legal "brick-and-mortar" locations such as casinos or transacted through retailers (such as for sports lotteries).
- 2. Online sports betting Sports betting activity that is conducted online (through mobile or internet-connected devices).

There is, however, an important distinction within the online gambling segment, based on the location in which a consumer's gambling activity occurs, relative to where the operator offering the gambling product is licensed and regulated:

- **Online Regulated** gambling activities are legal, licensed and regulated in the jurisdiction where the consumer conducts the activity.
- Online Unregulated gambling activities include operators without a local licence serving the Canadian market, e.g. through a dot com domain and typically licensed, regulated and established in another jurisdiction.

Together, Land-based and Online Regulated betting are used to represent Canada's regulated market for sports betting. Online Unregulated gambling activities are used to represent Canada's unregulated or "grey market" for sports betting.

Throughout this report, we draw on the above categorization to size Canada's sports betting market and use it as the basis for presenting our market sizing results.

For the purpose of this report, we have used H2 Gambling Capital (H2) as our primary data source for estimating the historical size of all regulated and unregulated gaming market components in Canada and in the international jurisdictions referenced in this study. H2, a betting and gaming consultancy, is an established provider of gambling market data that collects historical gaming market data on regulated market channels and estimates the size of the unregulated market for a number of global jurisdictions.

As indicated above, we have used H2 estimates of Online Unregulated gambling activity in Canada to provide a view of Canada's "grey market" for sports betting. We note that H2 estimates exclusively capture Online Unregulated GGR generated by operators that are licensed and regulated outside of Canada and offer online sports betting services to Canadians. As a result, it is likely that some illegal sports betting activity such as "black market" activity is not included in this estimation. For example, bookkeepers operating illegally within Canada through informal channels, who do not have a licence to operate in any jurisdiction, are not included in our Online Unregulated estimate for Canada.

Estimating GGR (or other betting metrics) collected by "black market" operators (who may operate online or offline) is notoriously difficult and has not been attempted by us in this study².

PwC | Compass Rose Group

4

We note that the Canadian Gaming Association (CGA has quoted a \$14 billion annual market for sports betting in Canada, comprising "\$10 billion through illegal bookmakers and a further \$4 billion through offshore online sports wagering sites". Based on the application of a 10% hold, and assuming this estimate was in Canadian dollars, this equates to CA\$1.4 billion in total GGR (CA\$400 million of which is through "offshore online sports wagering sites") compared to H2's estimate of Online Unregulated activity of CA\$323 million. We have not verified CGA's "black market" estimate or included GGR estimates of "black market" activity in this study. Refer to Appendix B for further detail.

Sizing Canada's future sports betting market

We have undertaken the following steps to size the potential future sports betting market in Canada, post-legalization of single-event sports betting:

- Defined parameters for a post-legalization sports betting regulatory framework for Canada Outlined key factors associated with an assumed post-legalization framework in Canada, including their role in the framework and potential impact on Online Unregulated activity.
- Conducted a jurisdictional review Conducted secondary research on selected international jurisdictions, which have established a post-legalization framework that is similar to one assumed by us. Data from these jurisdictions formed the basis for our market sizing. Specifically, we undertook the following two key activities:
 - Researched and collected information on international jurisdictions in Western Europe and the U.S. (individual states) that have undergone similar regulatory activities in their respective gambling and/or sports betting markets to what is currently being assumed for Canada.
 - Established and applied criteria to shortlisted regions most relevant to Canada's specific circumstances.
- **Market sizing scenario specification -** Developed market sizing scenarios, drawing upon the trajectories of shortlisted international jurisdictions.
- **Canadian market sizing -** Applied shortlisted jurisdictions' trajectories to Canada's existing sports betting market to estimate the potential size of the market two years post-legalization.

The composition of our two market sizing scenarios, with respect to the post-legalization jurisdictional trajectories applied in each, is summarized below.

Table A: Composition of market sizing scenarios

Channel	Jurisdictional trajectory	Scenario 1: Low Growth	Scenario 2: High Growth
Land-based	Delaware (U.S.)	✓	✓
Online	Denmark	✓	
	Sweden		✓

Land-based revenues in both scenarios are expected to increase from CA\$222.5 million to CA\$591.6 million in GGR for Canada. Under both Low Growth and High Growth scenarios, Online Regulated GGR in Canada is expected to exceed Land-based GGR post-legalization, which was not the case pre-legalization.

In the Low Growth scenario, a moderate decrease in Online Unregulated GGR accompanied by a sizable increase in Online Regulated GGR is expected. A decrease in Online Unregulated GGR from CA\$322.7 million to CA\$258.3 million is expected (a decrease of 20%), while Online Regulated revenues are expected to increase from CA\$19.2 million to CA\$877.1 million in GGR.

In the High Growth scenario, a large decrease in Online Unregulated GGR accompanied by a large increase in Online Regulated GGR is expected. A decrease in Online Unregulated GGR from CA\$322.7 million to CA\$81.9 million is expected (a decrease of 74.6%), while Online Regulated GGR is expected to increase from CA\$19.2 million to CA\$1.8 billion. A summary of these results can be found in Table B.

PwC | Compass Rose Group

5

Table B: Summary GGR results for Canada (CA\$, Million)³

	Channel	Dec les elles des	Post-legalization (year 2)		
Market component		Pre-legalization (2019)	Scenario 1: Low Growth	Scenario 2: High Growth	
	Online Regulated	19.2	877.1	1,824.3	
Regulated Market	Land-based	222.5	591.6	591.6	
	Total Regulated	241.7	1,468.8	2,416.0	
Unregulated Market	Online Unregulated ("grey market")	322.7	258.3	81.9	
Total Market		564.4	1,727.0	2,497.9	

Economic implications

The following incremental GGR impacts modelled in our market sizing process represent the changes to the taxable base of Canada's regulated sports betting market (including the reduction in Online Unregulated GGR).

Table C: Summary GGR results, incremental GGR impact (CA\$, Million)⁴

Market component	Channel	Incremental impact (Post-legalization levels - Pre-legalization levels)		
	Chamer	Scenario 1: Low Growth	Scenario 2: High Growth	
Regulated Market	Online Regulated	857.9	1,805.1	
	Land-based	369.1	369.1	
	Total Regulated	1,227.1	2,174.3	
Unregulated Market	Online Unregulated ("grey market") ⁵	-64.4	-240.8	
Total Market		1,162.7	1,933.5	

In this report, we have focused on potential impacts to gambling tax-bases post-legalization. However, there are a number of other economic benefits to consider, such as the employment and GDP impacts associated with the incremental growth in regulated GGR in Canada post-legalization. These impacts have been modelled using an economic footprint modelling approach and are summarized below:

³ Totals may not sum due to rounding.

⁴ Totals may not sum due to rounding. Generated using an Input-Output (I-O) modelling approach.

⁵ Post-legalization, Online Unregulated GGR declines in both scenarios relative to pre-legalization levels.

Table D: Summary economic footprint modelling results⁶

	Direct	Indirect	Induced	Total
GDP (CA\$, Million)	\$149.1	\$163.9	\$112.2	\$425.2
Jobs (full-time equivalents, person years)	1,061	1,147	469	2,678
Labour income (CA\$, Million)	\$98.2	\$103.7	\$45.8	\$247.7
Personal Income Tax (CA\$ Million)	\$23.7	\$25.1	\$11.1	\$59.8

Other socio-economic factors (examined at a high level in this study) associated with a post-legalization environment include problem gambling and player protection as well as sponsorship and advertising impacts.

Policymakers, as well as society at large, are often concerned with the incidence and impact of "problem gambling". We do not propose to review the extensive literature on problem gambling here; however, it is important to note that in this area, regulations and taxes are likely to have some impact on problem gambling, although this is not always obvious.

The increases to provincial governments' tax-bases associated with the legalization of single-event sports betting gives provinces additional tax revenue that could potentially be put toward increased funding of their respective problem gambling programs and initiatives.

In addition, high levels of channelization of unregulated market activity into the regulated market can be beneficial in terms of ensuring higher levels of player protection, as evidenced from the licensing requirements on gambling operators in regulated markets. Licensed operators are typically required by law (e.g. in Sweden and Denmark) to take a number of steps to ensure player protection and to address problem gambling.

A further benefit to the wider economy from encouraging greater levels of regulated market growth could come through increased sports sponsorship from operators who choose to become regulated in Canada. In addition, assuming that the regulation of the domestic online market is accompanied by rules allowing for advertising of gambling products, we would expect there to be a significant uplift in advertising spending in the domestic market, particularly around the period of change (as has been observed in multiple international jurisdictions).

PwC | Compass Rose Group 7

-

⁶ Land-based impact. Applicable to all market sizing scenarios. Sum of Direct, Indirect and Induced Impact. Totals may not sum due to rounding.

1. Introduction

1.1 Study background

Currently, regulated sports betting in Canada is limited to "parlay bets", in which sports bettors are required to pick the winning team in multiple sports event contests to receive a payout. Unregulated or "grey market" sports betting is offered to Canadians through online sports wagering websites and mobile applications that are not regulated in Canada. These unregulated channels offer single-event sports betting as well as a range of sports betting products (e.g. "live betting") and are a significant and growing feature of Canada's sports betting market.

On November 26, 2020, the Government of Canada introduced legislation to legalize single-event sports betting in Canada, which is currently prohibited under Section 207(4)(b) of the Criminal Code. Under the newly proposed amendment to the Criminal Code, Bill C-13, each of Canada's provincial and territorial governments will have the discretion to conduct and manage single-event sports betting in their respective jurisdictions. If passed, and if provinces choose to incorporate single-event sports betting into their respective regulatory regimes, this change would allow Canadians to place a bet on the outcome of a single sports game (such as a hockey game or football match) in a regulated environment, either online or at physical facilities such as casinos, retail locations and other gaming outlets.

The legalization of single-event sports betting through Bill C-13, and the subsequent implementation of regulatory changes by Canada's provincial and territorial governments, presents an opportunity to create a more competitive gambling market in Canada that has the potential to erode existing "grey and black market" sports betting activity and to bring currently untaxed sports betting Gross Gaming Revenue (GGR)⁷ under the regulatory and taxation purview of provincial and territorial governments. In addition, regulatory oversight within Canada's sports betting market can facilitate greater levels of player protection and sporting integrity and can guard against money laundering and other illegal activities that may occur in the "grey and black market".

1.2 Study objectives

PricewaterhouseCoopers, LLP ("PwC", "we" or "us") has been commissioned by Compass Rose Group ("Compass Rose") to conduct an economic analysis related to the legalization of single-event sports betting in Canada.

For the purposes of this study, the potential future state of Canada's sports betting market after the legalization of single-event sports betting through Bill C-13 and the subsequent implementation of regulatory changes by Canada's provincial and territorial governments will hereafter be referred to as "post-legalization".

Specifically, this economic analysis:

- Provides a high level overview of Canada's existing sports betting market, including the current size and growth of its regulated and unregulated sports betting market.
- Summarizes the experience of international jurisdictions that have undergone regulatory changes in an effort to liberalize aspects of their respective gambling markets.

PwC | Compass Rose Group

8

⁷ Note that as GGR refers to stakes wagered by customers less winnings or prizes paid to customers, GGR represents a portion of the total stakes wagered by customers (e.g. \$100 million in GGR translates into \$1 billion in stakes when assuming a 10% operator margin or hold). In the gambling sector, GGR is broadly equivalent to "sales" or "revenue" and has hence been adopted as the key metric when reporting the size of various gambling market components throughout this study.

- Develops scenarios to estimate the potential size of Canada's sports betting market, post-legalization, based on the experiences of international jurisdictions.
- Outlines the economic and fiscal implications, with a focus on potential tax-base impacts, associated with the development of a future sports betting market in Canada, post-legalization.

1.3 Approach overview

The following elements summarize the overall approach of the study:

- 1. Overview of sports betting in Canada: Conducted a high-level review of the sports betting market in Canada, including a discussion of Canada's regulated market and unregulated "grey market".
- 2. Sizing Canada's future market: Outlined key components that could underpin a future regulatory framework post-legalization of single-event sports betting. Conducted a review and analysis of global jurisdictions (including individual U.S. states) that have undergone regulatory changes with respect to legalizing aspects of their respective sports betting and/or gambling markets. The experience of these jurisdictions was used as a basis to size two scenarios for Canada's potential future market post-legalization.
- 3. Economic and fiscal implications: Based on the results of the preceding step, conducted analysis on the economic and fiscal implications with a focus on potential gambling tax-base impacts (as well as GDP and jobs impacts) associated with the development of a future sports betting market in Canada, post-legalization of single-event sports betting.
- **4. Reporting:** We have prepared this report that summarizes the approach and findings of the above analysis components.

1.4 Glossary

Throughout this report, we will use a number of key terms for which the following definitions should be assumed.

Table 1: Glossary of key terms

Key term	Definition	
Absorption	The proportion of the online market that is regulated and therefore taxable.	
"Black market"	Online or offline gambling activity supplied by operators not licensed in any jurisdiction, e.g. bookkeepers operating illegally through informal channels.	
CAGR	Compound annual growth rate. The year-on-year percentage growth rate needed to achieve the required growth across the specified period. Unless otherwise indicated, the growth rates presented in this report are in CAGR terms.	
Cannibalization	The decrease in market growth in one gambling market as a result of the introduction or growth of another.	
Channelization	The shift from Online Unregulated to Online Regulated gambling activity.	
Gambling (or Gaming)	Placing money on the outcome of an uncertain event (includes sports betting and other gambling activities).	
GGR	Gross gaming revenue. Refers to stakes wagered by customers less winnings or prizes paid to customers.	
Hold	Refers to the percentage of money that gambling operators retain for every dollar wagered.	

Key term	Definition	
In-play betting	Placing money on the outcome of a sporting event during the event itself. Also referred to as "bet-in-play" or "live betting".	
Liberalize	Where the process of regulation has loosened the restrictions on the supply of gambling services.	
Regulated (or Domestically Regulated)	Online or offline gambling supplied by operators that are licensed to operate within Canada or the relevant respective local jurisdiction.	
Online	Gambling activity through the internet, mobile phones and other interactive devices.	
Online Regulated	Gambling activities through the internet which are legal, licensed and regulated in the jurisdiction where the consumer conducts the activity.	
Online Unregulated (or "grey market")	d (or Gambling activities through the internet with operators without a local licence serving the Canadian market, e.g. through a dot com domain and typically licensed, regulated and established in another jurisdiction. This does not include "black market" gambling activity.	
Land-based	Retail gambling activity that is conducted within legal "brick-and-mortar" locations, such as casinos, or transacted through retailers (such as for sports lotteries).	
Parlay bet	A single bet based on the outcome of a minimum of two events. All events within a parlay bet must be successful for it to be a winner.	
Payout	The total amount (winnings) received by the customer in prizes from successful bets or gambling games (also referred to as "pay back").	
Stakes (or Turnover)	The total (gross) amount of money spent by customers on gambling activities.	

1.5 Report structure

The remainder of this report is structured as follows, based on the approach we have undertaken to complete our economic analysis:

- Section 2: Overview of sports betting in Canada
- Section 3: Sizing Canada's future market
- Section 4: Economic and fiscal implications
- Appendices

2. Overview of sports betting in Canada

This section presents an overview of the sports betting market in Canada, including a discussion of the existing regulated market and the unregulated "grey market."

2.1 Industry composition

Sports betting activity in Canada can be broadly broken down into the following two market channels:

- 1. Land-based sports betting Sports betting activity that is conducted within legal "brick-and-mortar" locations such as casinos, or transacted through retailers (such as for sports lotteries).
- 2. Online sports betting Sports betting activity that is conducted online (through mobile or internet-connected devices).

There is, however, an important distinction within the online gambling segment, based on the location in which a consumer's gambling activity occurs, relative to where the operator offering the gambling product is licensed and regulated:

- **Online Regulated** gambling activities are legal, licensed and regulated in the jurisdiction where the consumer conducts the activity.
- **Online Unregulated** gambling activities include operators without a local licence serving the Canadian market, e.g. through a dot com domain and typically licensed, regulated and established in another jurisdiction.

Together, Land-based and Online Regulated betting are used to represent Canada's regulated market for sports betting. Online Unregulated gambling activities are used to represent Canada's unregulated or "grey market" for sports betting.

Throughout this report, we draw on the above categorization to size Canada's sports betting market and use it as the basis for presenting our market sizing results.

For the purpose of this report, we have used H2 Gambling Capital (H2) as our primary data source for estimating the historical size of all regulated and unregulated gaming market components in Canada and in the international jurisdictions referenced in this study. H2, a betting and gaming consultancy, is an established provider of gambling market data that collects historical gaming market data on regulated market channels and estimates the size of the unregulated market for a number of global jurisdictions.

Refer to the figure below for a historical analysis of Canada's sports betting market and the channels that comprise it.

Share of GGR 100% 90% 80% Land-based 70% 60% Online Regulated 40% 30% Online Unregulated 20% 10% 2005 2006 2007 2008 2009 2010 2011 2012 2013 2014 2015 2016 2017

Figure 1: Canada's sports betting GGR breakdown by regulated and unregulated components (2005-2019)

Source: H2 Gambling Capital

In 2019, the proportion of Online Unregulated sports betting GGR in Canada was greater than Online Regulated and Land-based GGR, with nearly 60% of GGR collected through Online Unregulated channels (a 10 percentage point increase from 2005). While Land-based and Online Regulated GGR have increased in absolute terms, the rate at which Online Unregulated sports betting GGR has grown has outpaced the growth in the regulated market channels.

2.2 Canada's regulated market for sports betting

2.2.1 Existing regulatory framework

The Criminal Code prohibits most forms of gaming activities in Canada, except under certain circumstances. The primary provisions of the Criminal Code regulating gambling are Sections 201 to 209, which give Canadian provincial governments permission to conduct and manage gambling, otherwise illegal under the Criminal Code, in cases where provinces manage a lottery scheme. Provinces operating lottery schemes can permit various forms of gaming within this legal framework and regulate any such gaming that it permits. Accordingly, Canadian provinces have developed their own unique regulatory frameworks for gambling in the form of "lottery schemes", which are defined broadly to include games of chance or games of mixed chance and skill. Lotteries are operated in all 10 Canadian provinces, including a number of multi-provincial lottery arrangements.

Sports betting regulation varies across Canada's provinces and territories. The regulatory structure of Canada's gambling is characterized by Crown corporations (in the form of provincial lottery schemes) controlling the large majority of regulated gambling activity. While provincial lotteries can and do offer sports betting products, they are currently limited by the Criminal Code to parlay style betting, in which sports bettors are required to pick the winning team in multiple sports event contents to win the bet.

In the past five years, provincial operators have responded to the growing demand for more online gambling options, including for sports events. For example, the Ontario Lottery and Gaming Corporation (OLG) has prioritized the expansion of its internet gambling offerings in recent years. Similarly, Loto-Québec operates espacejeux.com, while the British Columbia Lottery Corporation (BCLC) operates PlayNow.com. Each of these operators currently offer parlay sports betting products to residents.

2.2.2 Current size of the regulated market

As outlined above, within the regulated sports betting market, there are two separate market channels: Land-based (for casinos and retailers) and Online Regulated (online platforms through the province). The growth in GGR from these channels is shown over time below.

GGR, CA\$ million +5% Land-based Online Regulated

Figure 2: Canada's sports betting GGR by regulated channel (2005-2019)8

Source: H2 Gambling Capital

As shown above, in 2019, Canada's regulated sports betting industry accounted for CA\$241.7 million in GGR, growing on average at an annual rate of approximately 5% over the past 15 years. The majority of the GGR was through the Land-based channel, accounting for CA\$222.5 million and more than 90% of total regulated GGR. While limited, provincial operators with online platforms in 2019 generated CA\$19.2 million in GGR and have been the fastest growing channel within the regulated market (experiencing an approximately 30% annual average growth rate compared to a 4% average annual growth rate in Land-based GGR).

It is, however, important to contextualize the size of the regulated sports betting market within the overall size of Canada's regulated gambling market. While sports betting revenues in 2019 accounted for CA\$222.5 million, or around 1% of revenues in Canada's regulated gambling market, casino revenues took in over CA\$6 billion in revenue, or over 37%. The breakdown of total regulated gambling GGR by gambling activity is shown in Figure 3 below.

PwC | Compass Rose Group

_

⁸ Large increase in Land-based GGR from 2005-2006 is attributed to lower than usual spend in 2005 compared to previous years.

Share of GGR 100% Sports betting 90% Lottery 80% 70% 60% Casino 50% 40% 30% 28% **Gaming Machines** 20% 28% 10% Other 0% 2006 2007 2008 2010 2011 2012 2013 2014 2015 2016 2017 2018 2019 2005 2009

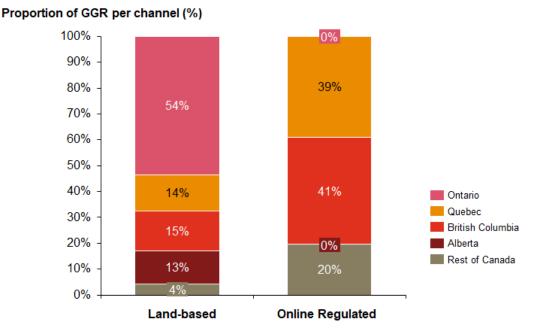
Figure 3: Breakdown of Canada's regulated gambling market by activity and GGR (2005-2019)9

Source: H2 Gambling Capital

Within the context of Canada's overall gambling sector, sports betting currently does not account for a significant share of regulated GGR, generating only 1.4% of all regulated gambling GGR in 2019.

At the provincial level, the distribution of regulated sports betting GGR differs markedly between channels, per the figure below.

Figure 4: Provincial breakdown of Canada's regulated sports betting GGR by market channel (2019)



Source: H2 Gambling Capital

As of 2019, Ontario accounted for over half of all Land-based sports betting GGR, while Quebec, British Columbia and Alberta accounted for a similar proportion of Land-based GGR (approximately 13-15% of

⁹ The "Other" category includes bingo/charitable gaming, horserace betting, online casino and online poker.

Canadian Land-based GGR in each). Within the Online Unregulated channel, which accounts for approximately 8% of total regulated GGR, the breakdown differs markedly from the Land-based channel. Quebec, British Columbia and Atlantic Lottery (Maritime provinces) offer online sports betting activity, with British Columbia and Québec accounting for 80% of Canada's Online Regulated GGR in 2019.

2.3. Canada's unregulated "grey market" for sports betting

Online gambling activity falls into a grey area in Canada. While Canadian law doesn't prohibit the practice of online betting, it does require the operator offering the gambling product to be licensed or owned by a provincial government in order for the activity to be considered legal. Currently, there are a significant number of unregulated sites offering sports betting services to Canadian citizens.

2.3.1 Defining and estimating the existing "grey market"

As indicated above, we have used H2 estimates of Online Unregulated gambling activity in Canada to provide a view of Canada's "grey market" for sports betting. We note that H2 estimates exclusively capture Online Unregulated GGR generated by operators that are licensed and regulated outside of Canada and offer online sports betting services to Canadians. As a result, it is likely that some illegal sports betting activity, such as "black market" activity, is not included in this estimation. For example, bookkeepers operating illegally within Canada through informal channels who do not have a licence to operate in any jurisdiction are not included in our Online Unregulated estimate for Canada.

Estimating GGR (or other betting metrics) collected by "black market" operators (who may operate online or offline) is notoriously difficult and has not been attempted by us in this study¹⁰. This suggests a potential underestimation of the illegal market. On the other hand, since H2's estimation for Online Unregulated sports betting includes horse racing, there is a potential for overestimation in this channel. However, given that horse racing has been legal in Canada since 1969, it can be assumed that the large majority, if not all, of horse racing GGR is accounted for in legal channels. Thus, in summary, it would appear that the estimation used in this study is reasonably conservative.

PwC | Compass Rose Group

-

We note that the Canadian Gaming Association (CGA) has quoted a \$14 billion annual market for sports betting in Canada, comprising "\$10 billion through illegal bookmakers and a further \$4 billion through offshore online sports wagering sites". Based on the application of a 10% hold, and assuming this estimate was in Canadian dollars, this equates to CA\$1.4 billion in total GGR (CA\$400 million of which is through "offshore online sports wagering sites") compared to H2's estimate of Online Unregulated activity of CA\$323 million. We have not verified CGA's "black market" estimate or included GGR estimates of "black market" activity in this study. Refer to Appendix B for further detail.

2.3.2 Current size of unregulated market

Based on the above definition of Online Unregulated activity, as estimated by H2, the growth in Canada's Online Unregulated sports betting GGR over the past 15 years is shown in Figure 5 below.

GGR, CA\$ million +8%

Figure 5: Canada's Online Unregulated sports betting GGR (2005-2019)

Source: H2 Gambling Capital

Over the past 15 years, Canada's Online Unregulated sports betting GGR has grown by an average annual rate of 8%, reaching CA\$323 million in 2019 (as seen in Figure 6). To contextualize the above within the context of Canada's total unregulated gambling GGR, a breakdown of gambling GGR by activity is shown below.

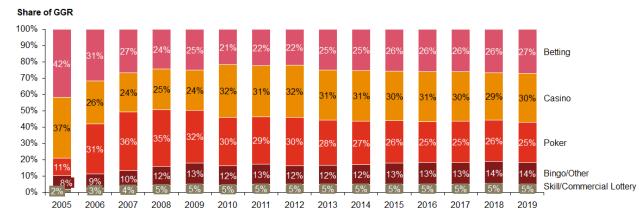


Figure 6: Breakdown of Canada's Online Unregulated gambling market by activity (2005-2019)

Source: H2 Gambling Capital

In 2019, sports betting accounted for 28% of all unregulated gambling GGR, the second largest contributor behind online casino activities, which accounted for 31% of all unregulated gambling GGR.

Within the sports betting sector, Canada's unregulated activity accounts for a significant share of total online GGR. A 2019 breakdown of Canada's regulated and unregulated GGR by market channel is shown below.

Table 2: Canada's sports betting GGR by channel (2019)¹¹

Market component	Channel	GGR (CA\$, Million)	Share of total GGR	Share of online GGR	
	Online Regulated	19.2	3.4%	5.6%	
Regulated Market	Land-based	222.5	39.4%		
	Total Regulated	241.7	42.8%	N/A	
Unregulated Market	Online Unregulated ("grey market")	322.7	57.2%	94.4%	
Total Market		564.4	100%	N/A	

Source: H2 Gambling Capital

Canada's Online Unregulated sports betting market accounted for over 94% of all online activity (regulated and unregulated) and over 57% of total regulated and unregulated GGR.

A report published by the European Commission in 2017 provided helpful triangulation that broadly supports H2's "grey market" estimate of sports betting in Canada. Specifically, the European Commission's report estimated Canadian regulated sports betting GGR to be CA\$208 million (49% of total GGR) and its "grey market" GGR to be CA\$219 million (51% of total GGR)¹². This compares well to H2's 2017 GGR estimates for Canada: CA\$227 million in regulated GGR (43% of total GGR) and a CA\$300 million "grey market" (57% of total GGR).

Given that the European Commission report draws from interviews with local betting experts, some variation is expected. However, it can be expected that the true size of these markets would be close or similar to the data provided by H2, given that an independent study concludes similar results.

2.3.3 Web traffic analysis

We have utilized SimilarWeb data to identify the largest gambling websites (in terms of traffic) in Canada. A summary of the top 20 individual websites is shown in the table below for SimilarWeb's "Gambling"¹³ and "Sports Betting" categories. We have chosen to analyze web traffic for pages which advertise and offer gambling activities as a whole in addition to sports betting, as the sports betting category omits certain provincial websites that offer other gambling activities, in addition to sports betting (e.g. playnow.com).

A high-level analysis of the top 20 sports betting sites in Canada (by web traffic) revealed that the majority of web traffic in Canada for sports betting sites is directed toward unregulated operators, with Bet365, Betway and Sports Interaction among the most popular. A high-level analysis of the top 20 gambling sites in Canada (by web traffic) revealed that Bet365 and Betway remain the most popular gambling sites, with the two accounting for almost one fifth of total gambling traffic in Canada. Provincial operators such as OLG and Loto-Québec received a large share of overall gambling web traffic, with Canadian provincial operators accounting for 20.6% of total gambling web traffic. Refer to Appendix C for a summary of the web traffic analysis results.

¹¹ Totals may not sum due to rounding.

¹² European Commission estimates converted from Euros to Canadian Dollars based on the annual average exchange rate in 2017.

¹³ Includes Casino, Lottery, Poker, Sports Betting and Other Gambling websites, as categorized by SimilarWeb.

3. Sizing Canada's future market

This section presents an overview of the approach to and results of sizing the future sports betting market in Canada following legalization of single-event sports betting. Our market sizing approach draws on a review of a number of international jurisdictions that have undergone regulatory changes following the legalization of aspects of their respective gaming markets.

3.1 Overview of market sizing approach

We have undertaken the following steps to size the potential future sports betting market in Canada, post-legalization of single-event sports betting:

- Defined parameters for a post-legalization sports betting regulatory framework for Canada Outlined key factors associated with an assumed post-legalization framework in Canada, including their role in the framework and potential impact on Online Unregulated activity.
- Conducted a jurisdictional review Conducted secondary research on selected international jurisdictions, which have established a post-legalization framework that is similar to one assumed by us. Data from these jurisdictions formed the basis for our market sizing. Specifically, we undertook the following two key activities:
 - Researched and collected information on international jurisdictions in Western Europe and the U.S. (individual states) that have undergone similar regulatory activities in their respective gambling and/or sports betting markets to what is currently being assumed for Canada.
 - Established and applied criteria to shortlisted regions most relevant to Canada's specific circumstances.
- **Market sizing scenario specification -** Developed market sizing scenarios, drawing upon the trajectories of shortlisted international jurisdictions.
- **Canadian market sizing -** Applied shortlisted jurisdictions' trajectories to Canada's existing sports betting market to estimate the potential size of the market two years post-legalization.

3.2 Proposed legislative changes and regulatory impacts to sports betting

Within the context of Canada's growing "grey market" for sports betting as addressed in Section 2, the Federal Government recently introduced Bill C-13, which, if passed into law, will give provinces and territories the discretion to conduct and manage single-event sports betting in their respective jurisdictions.

The future regulatory responses of Canada's provinces and territories to the potential passage of Bill C-13 is currently unknown. However, its passage presents an opportunity for provincial and territorial governments to create a more competitive gaming market in Canada that could erode current "grey and black market" activity for sports betting and bring currently untaxed Online Unregulated sports betting GGR under their regulatory and taxation purview. In addition, enhanced regulatory oversight within Canada's sports betting market can facilitate greater levels of player protection and sporting integrity and can guard against money laundering and other illegal activities that may occur in the "grey and black market".

Regulatory and licensing conditions are important drivers for the propensity of online consumers to participate in the licensed, regulated market for sports betting. While the composition of a post-legalization regulatory framework in Canada (and throughout the provinces and territories) is not known, the analysis underpinning our future market sizing of Canada's sports betting market is reflective

of an "open" regime (broadly) in line with those that have achieved a low unregulated share and high reduction in Online Unregulated activity (e.g. Denmark, Sweden, United Kingdom).

For the purpose of this study, we have assumed a future regulatory framework that would apply to every province in Canada, post-legalization. This is broadly reflective of an "open" regime. Each of these key components, along with their respective objective with a post-legalization regulatory framework and their impact on Online Unregulated activity, is summarized in the table below:

Table 3: Assumed key components of a future post-legalization regulatory framework for Canada

Component	Objective within regulatory framework	Impact on Online Unregulated activity	Assumed status in post-legalization framework
		 Varying levels of tax can impact the competitiveness of regulated operators relative to unregulated counterparts. 	
Effective rate of	Generate tax revenue from gambling while ensuring the jurisdiction remains competitive for	from gambling while ensuring the jurisdiction • A high tax rate typically reduces competitiveness on odds/return-to-player, and/or in terms of operator profitability.	
taxation	operators.	 While there is a range of taxation approaches and rates levied, international jurisdictions often levy 15-25% tax on GGR to maximize tax revenue while providing a competitive market for entry. 	
Operator licence availability	Having a broader range of licensed operators creates a competitive environment and encourages choice for consumers. A rigorous licensing process encourages only established/liquid operators to pursue a licence.	 A more competitive licensed market can drive innovation and choice for consumers. If there is limited choice of licensed operators, or if they are uncompetitive, this may be a factor that induces gamblers to look for unregulated alternatives. There is some risk that a complex licensing process could deter some operators from choosing to obtain a licence in the jurisdiction. 	Competitive licensed regime (with no restrictions on the number of licensed operators) (i.e. not a monopoly, or restrictive conditions on who can operate).
Stakes and deposit limits	Limits on stakes/deposits/losses can protect players from substantial losses and can potentially reduce the rate of problematic play.	If gamblers are restricted from or have reached the betting limit for one or all of the legal platforms, they may seek out other forms of gambling such as unlicensed operators.	No stakes or deposit limits.
Specific product restrictions (eg. "In-game"/ "live betting")	A broad range of legal betting markets and products is attractive to gamblers and increases competitiveness of licensed operators.	Product restrictions in legal betting markets may increase the attractiveness of unregulated options without these restrictions. If gamblers are not able to play their games of choice with a licensed operator, they may look to unregulated alternatives.	"In-game"/"live betting", including "proposition betting", is permitted.
Advertising	Advertising restrictions can be used to reduce the exposure of minors/non-gamblers to	Advertising restrictions can impact the brand awareness of licensed operators. Hence gamblers may be more reliant on online search where gamblers	Operators are able to advertise prior to launch (or offering), from which point they

¹⁴ Blended rate. Land-based GGR tax assumed to be higher.

	gambling products as well as mitigating problem gambling.	are typically more exposed to unlicensed operators. It may be harder for gamblers to determine if an operator is licensed. This may drive unregulated market spending.	would be able to obtain licences and therefore operate and advertise their products through various channels.
Website and/or payment blocking	Website blocking can reduce gamblers' access to unregulated operator websites and help to educate gamblers about the licence status of an operator. Payment blocking can serve as a deterrent for more casual gamblers currently using unregulated operators.	 Website blocking protects unsuspecting gamblers from using unlicensed operators. However, more serious gamblers (typically higher stakes gamblers) can use VPNs to circumvent website blocks. Payment blocking (usually through requiring banks to block payments to certain providers) can be effective at deterring operators/casual gamblers. However, it can be circumvented by unregulated operators/serious gamblers (by not declaring that they are a gambling operator or using other payment transfer mechanisms), which can reduce its intended impact. 	Implementation of a combination of website and/or payment blocking processes in an effort to deter unregulated activity.

Note that, across different jurisdictions, there is a broad range of success in channelization as a result of legalizing and regulating online gambling activities, which is influenced by the regulatory framework applied.

As outlined in Section 3.4, we have developed market sizing scenarios for Canada based on the experiences of different jurisdictions. A key criterion in selecting these jurisdictions was the extent to which their post-legalization regulatory frameworks broadly aligned with the above assumed post-legalization framework for Canada.

3.3 Jurisdictional review and analysis

3.3.1 Overview of U.S. jurisdictions

Prior to 2018, the restrictions on sports betting in the U.S. were dictated by the Professional and Amateur Sports Protection Act of 1992 (PASPA), which outlawed the activity in all states except Nevada (and Oregon and Delaware, to some extent). Given Nevada's extensive history with gambling, sports betting has been legalized and fully operational in the state since 1949 and was exempt from the restrictions of PASPA. Many major casinos in Nevada had a sportsbook and offered online and mobile options. As it was only legal for sportsbooks to operate in a physical location within Nevada, many popular sportsbooks, such as William Hill, have partnered with casinos in Nevada to provide online and mobile betting.

When PASPA legislation was overturned in 2018, the federal prohibition on sports betting was removed. Many states were able to regulate their own sports betting activities and took the opportunity to legalize Land-based or online sports betting. As of January 1, 2021, 19 states have regulated and operationalized sports betting, while six states have legalized sports betting but have no licensed or operational sportsbooks yet. Our review of regulatory actions taken by states, subsequent to the repeal of PASPA, suggested that Delaware, Michigan, Nevada, New Jersey and New York were the most relevant jurisdictions for our study. Refer to Appendix D for a summary of the regulation and liberalization efforts of these jurisdictions.

A state that has a particularly interesting history with sports betting is Delaware, due to regulatory changes in their Land-based betting sector for both casinos and retailers. As one of the three states that allowed sports betting before PASPA was repealed, Delaware permitted parlay betting through Land-based retailers before single-event betting was legalized in 2018. This exception was grandfathered, as parlay betting was briefly offered through the state before PASPA was enacted. Given that the legal distinction between single-event and parlay betting is uncommon in other jurisdictions (eg. in Europe), Delaware has many similarities to Canada's sports betting landscape and notably has undergone a transition from parlay-only to adding single-event offerings in its sports betting market.

Similar to Delaware, New Jersey was one of the first states to offer single-event sports betting once PASPA was repealed in 2018. New Jersey's post-legalization growth of the sports betting market established itself as one of the most developed online markets in the U.S. The availability of Online Regulated betting and land-based sportsbooks greatly contributed to the large amount of GGR generated, as the total GGR grew almost three times in size post-legalization, as GGR collected through legal channels grew from 0% to 75%.

Regulation of sports betting in the U.S. has tended to encourage the establishment of casino and Land-based offerings first. States such as Michigan and New York have legal sportsbooks operating in casinos, but have none available online. While Michigan has passed legislation for online sportsbooks, New York is still pending approval. However, significant existing demand (and "grey market") for online sports betting is prevalent in both states as of 2019.

3.3.2 Overview of European jurisdictions

With the prevalence of gambling activities moving to online platforms and spaces within the past two decades, greater consideration has been given by many jurisdictions globally to regulate online gaming. A multitude of European jurisdictions have moved to regulate online sports betting, with varying degrees of success for different restrictions. Based on the range of legislative changes applied post-legalization and the unique circumstances of each regulated market, France, Spain, Sweden, Denmark, Portugal and the United Kingdom were reviewed for the purpose of our study. Refer to Appendix D for a summary of the regulation and liberalization efforts of these jurisdictions.

In Europe, sports betting and gambling has generally been less restrictive and has been offered more widely than in the U.S. For example, the United Kingdom has fully regulated most gambling activities and has convenient offerings for online sportsbooks, casinos and retail shops. With sports betting legalized for betting shops and casinos under the Sports Betting and Gaming Act of 1960, the recent changes in legislation focused on harm reduction in addition to liberalizing other gaming activities.

The United Kingdom's Gambling Act of 2005 was enacted to renew safety legislation and legalize online gaming, new types of casinos and gaming machines, as well as to establish the Gambling Commission to oversee market activities.

The tax rates levied on betting activities greatly affect the competitive atmosphere for each jurisdiction and its ability to incentivize consumers to use regulated sports betting platforms in favour of unregulated operators. An example of a more restrictive jurisdiction with a higher tax rate is France. Although online sports betting and private operators have been regulated since 2010 with no restrictions on the number of licences granted, a high tax rate stifled profits for operators and made betting more expensive for consumers. Furthermore, France set a maximum of 85% return to players for online betting, which made the regulated market less attractive to consumers and less competitive compared to unregulated operators, where return to players tends to be in the range of 90-95%.

For many European jurisdictions, state monopolies on sports betting activities (including single-event betting) were in place before regulatory changes permitted the licensing of private operators. Throughout this report, the terms "legalization" and "legalizing" will also be used to refer to the liberalization of gambling markets that allows for the entry of private operators (from a prior state monopoly market configuration). This is applicable to the below discussed experiences of Denmark, Sweden, Spain, France and Portugal.

Denmark and Sweden both offered Land-based options for single-event betting before opening the market to foreign operators. In Denmark, private operators were able to obtain licences to operate starting in 2012. Concurrently, *Danske Spil* (Denmark's state operator) established its own online gambling platform in 2012 to compete with foreign operators. With a low tax rate of 20% on GGR as well as few licensing and product restrictions, the market remains open and competitive. In the first year post-legalization, Online Unregulated GGR decreased by US\$8.6 million in GGR, from US\$54.8 million to US\$46.3 million. As of 2019, Online Unregulated GGR had decreased by US\$21.6 million in GGR since legalization, with the Online Unregulated channel accounting for 8.2% of total sports betting GGR compared to over 30% pre-legalization.

In Sweden, the state operator *Svenska Spel* had offered sports online single-event betting prior to regulating and licensing foreign operators in the country in 2019. Despite offering single-event betting through the Online Regulated channel, the unregulated market represented US\$325 million in GGR pre-legalization. In the first year post-legalization, Online Unregulated GGR decreased to US\$82.3 million, a decline of US\$243.5 million. Legal online GGR for the state accounted for only US\$110.6 million in GGR pre-legalization, which grew to US\$453.9 million in GGR post-legalization, an increase of US\$343.3 million (or an increase of over 310%).

Similar to France, when Portugal opened up the market for sports betting in 2015, a tax on stakes at a rate of 8% was levied on operators (this is equivalent to an approximately 40% GGR tax, based on a 20% hold). Before the market was regulated, Portugal had appointed *Santa Casa da Misericórdia de Lisboa*, a charitable organization, to regulate sports betting products and operate as a monopoly within the jurisdiction. Given a higher tax rate, the unregulated market in Portugal only decreased by 3.5% in the first year following the introduction of private operators. In addition, a tax on winnings over €5,000 (or around CA\$7,700 in 2021) for consumers made regulated products less competitive.

Spain's market for sports betting was regulated in 2011 and operational starting in 2012. Despite offering a favourable tax rate of 20% on GGR for operators, the licensing and regulatory regime in Spain is much more complex compared to other jurisdictions. Some examples of these regulations in place include

licensing windows for prospective entrants, stake limits for consumers, and in-play betting restrictions for some regions. As a result, a large amount of unregulated activity continued to exist in Spain, which experienced a small decrease in Online Unregulated GGR in the first year post-legalization (from US\$58.2 million to US\$56.2 million). The proportion of the unregulated market post-legalization has stayed higher than in many other countries that have regulated private operators for sports betting. Spain's regulatory regime is an example of how incentivizing unregulated operators to enter the regulated market is not solely dependent on tax rates; it is important to consider the environment in which consumers and operators interact.

3.4 Market sizing scenario specification

3.4.1 Identification of shortlisted jurisdictions

We have focused our jurisdictional analysis on North America and Western Europe in order to control for cultural differences, under the assumption that betting culture is not substantially different between jurisdictions in these geographies. To control for regulatory and market differences, we developed the following criteria to shortlist these jurisdictions for the purpose of developing market sizing scenarios to estimate the future size of Canada's sports betting market, post-legalization.

Table 4: Shortlisting criteria

Criteria	Description
Pre-legalization landscape	The extent to which the jurisdiction's pre-legalized gaming market included the availability of sports betting offerings through regulated channels (primarily administered by a government operator) as well as unregulated sports betting products offered by operators who were unregulated in the jurisdiction.
Economy and industry metrics	The extent to which the jurisdiction is characterized by similar economic metrics in its respective gaming market, such as GGR-to-GDP, GGR per adult, and GDP per adult, relative to Canada. At a very high level, these metrics reflect a similar economic structure and prevalence of the gaming industry across jurisdictions, pre-legalization.
Competitive landscape post-legalization	The extent to which the post-legalization market is a competitive gaming landscape featuring a range of options for consumers and an open licensing regime that broadly corresponds to our assumed post-legalization framework for Canada (as outlined in Section 3.2).

The above criteria have been applied to shortlist juridictions based on their similarity to Canada's pre-legalization landscape, selected macroeconomic factors and the assumed regulatory framework post-legalization. This has resulted in two Western European and one U.S. jurisdiction being shortlisted. As will be outlined in Section 3.5, the experiences of these shortlisted juridictions have been used to specify market sizing scenarios for Canada.

Table 5: Application of shortlisting criteria

Legend: O: Low similarity to Canada's circumstances

Juris	sdiction	Pre-legalization landscape	Economy and industry metrics	Competitive landscape, post-legalization	Shortlisted? Yes: √No: X
	France	•	•	•	Х
	Spain	•	•	•	Χ
Western	Sweden	•	•	•	√
Europe	Denmark	•	•	•	√
	Portugal	•	•	•	X 15
	United Kingdom	•	•	•	X 16
	 Delaware	•	•	•	√
US States	Michigan	•	•	•	X
	Nevada	•	•	•	X 17
	New Jersey	•	•	•	X
	New York	•	•	•	Х

¹⁵ Refer to Section 3.7 for discussion of Portugal as a proxy for a more "Restrictive" regulatory framework.

As the United Kingdom has had regulated sports betting for decades, it is difficult to examine the initial effects of regulation. Similar to the United Kingdom, it is difficult to gauge initial impacts of legalization activities in Nevada given sports betting has been legal for many decades.

3.4.2 Experience of shortlisted jurisdictions

Delaware

In 2009, parlay betting was offered through Land-based channels for the first time in Delaware since PASPA was in place, resulting in US\$3.06 million in GGR collected. While online sports betting continued to be illegal, Land-based casinos were able to offer products for single-event betting once it became legal in 2018. In the first year post-legalization, US\$22.23 million in Land-based GGR was collected, an increase of US\$4.46 million from the previous year. Given a relatively high tax rate of 50% on Land-based GGR for sportsbooks, the potential for higher GGR could be hindered. Since the state has not offered a regulated channel for online operators, the "grey market" was not strongly affected by the change in Land-based single-event legalization.

While pre-legalization GGR per adult in Delaware was higher than Canada's current levels, total sports betting demand as a proportion of GDP in Delaware in the year prior to legalization was similar to Canada's current state. We note that given the proximity of Delaware to states with no legal sports betting (e.g. Maryland), there is a possibility for cross border activity. Residents living in neighbouring states where Land-based sports betting is not permitted could travel to Delaware to conduct legal Land-based sports betting, which may influence the GGR per adult metric for Delaware¹⁸.

The ratio of GGR-to-GDP was 0.027% in Delaware in 2017, whereas GGR-to-GDP was 0.024% in Canada in 2019. A similar demand for sports betting products in relation to the size of economic activity in each jurisdiction allows for better comparability in terms of the potential impact in the economy. In addition, the accessibility of Land-based sports betting for Delaware residents is similar to what Canadians experience for Land-based sports betting. In Delaware, there are three casinos, which translates to around 270,000 adults per casino. This is compared to around 318,000 people per casino in Canada, with 88 casinos in total.

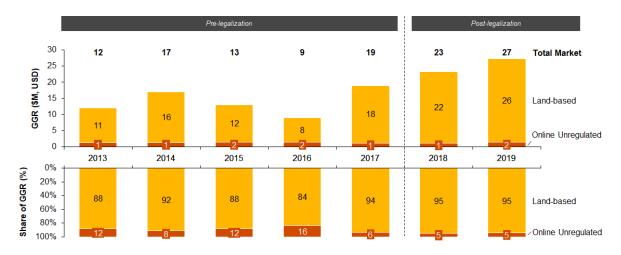


Figure 7: Delaware sports betting GGR by channel (2013-2019)¹⁹

Source: H2 Gambling Capital

¹⁸ We have not quantified or adjusted for this when conducting our market sizing for Canada.

¹⁹ Land-based GGR in 2016 is lower because of lower hold percentage (16% vs. usual ~30% with parlay), and therefore the growth percentage between 2016-2017 presents as a large increase when spending activity likely hasn't changed from consumers' perspective.

Denmark

Denmark had a state monopoly on sports betting prior to legalization. However, a state-owned online platform for sports betting was not established until other private sportsbooks were introduced. This is a similar case to Canada, where single-event betting has not been established through any online platform. In addition, Denmark's total online sports betting GGR per adult in the year preceding regulation was at a similar level to Canada's current regulated levels. Given a proposed similar competitive scenario as well as spend, it is plausible that Canada will display similar patterns.

Given a competitive GGR tax rate of 20%, Denmark was able to attract operators from the unregulated market to the regulated market in 2012, the first year following legalization. This was reflected by a 15.6% decrease in Online Unregulated GGR in the first year post-legalization (from US\$54.8 million to US\$46.3 million). In comparison, US\$79.5 million in Online Regulated GGR was collected in the first year post-legalization.

The competitive tax rate was successful in growing the market as well as channelizing unregulated revenues. The size of Online Unregulated GGR pre-legalization amounted to approximately one third of total sports betting GGR, which decreased to around one fifth of the market post-legalization. Legal GGR grew from two-thirds of the market pre-legalization to almost 80% of total GGR post-legalization. Total Online Regulated and Unregulated sports betting GGR grew over twice in size in the first year post-legalization.

In the year prior to legalization, regulated GGR (Land-based and online) was 1.9 times as large as Online Unregulated GGR. In the first year post-legalization, GGR for regulated operators (Land-based and online) was 3.5 times as large as Online Unregulated GGR. Given relatively relaxed restrictions on the types of betting, no limits on the number of licences granted, and the establishment of a state-operated online betting platform, the liberal market for sports betting created a highly competitive environment and incentivized consumers to transition from unregulated to regulated products. As a result, steady growth in GGR for the Online Regulated channel has been observed throughout the years post-legalization.

Given a full range of betting products, no limits on deposits, unlimited licensing for operators and a competitive tax rate, a sizable amount of channelization was observed in Denmark post-legalization. A steady increase in Online Regulated GGR reflected increased activity from new users who had not participated in Online Unregulated sports betting prior to legalization. Website blocking to limit unregulated operators was enacted to make unregulated platforms less accessible to consumers in Denmark. In addition, there were no taxes levied on winnings from consumers, which is consistent with gambling winnings being untaxed in Canada.

While sports betting GGR as a proportion of GDP was higher in Denmark than Canada in the year preceding legalization, the demand for online sports betting in Denmark pre-legalization was similar to Canada's current demand. In 2011, the amount of online (regulated plus unregulated) GGR per adult in Denmark was CA\$12.1²⁰. In 2019, the amount of online GGR collected per adult (regulated and unregulated) was also CA\$12.1. Given the similar pre-legalization demand for online sports betting products per adult, Canada's growth for online sports betting could follow a similar trajectory as Denmark post-legalization.

PwC | Compass Rose Group 26

-

 $^{^{20}}$ Calculated based on the exchange rate from U.S. dollars to Canadian dollars in 2011.

Pre-legalization Post-legalization 118 119 121 142 162 208 240 **Total Market** 250 200 Land-based GGR (\$M, USD) 150 100 Online Regulated 102 79 50 Online Unregulated 0 2007 2013 2008 2009 2010 2011 2012 0% Share of GGR (%) 20% 40% 40% Land-based 64% 64% 66% 66% 40% 60% 38% 42% Online Regulated 80% 34% 30% Online Unregulated 100%

Figure 8: Denmark sports betting GGR by channel (2007-2013)

Source: H2 Gambling Capital

Sweden

Sweden has offered single-event sports betting online through its state-owned platform prior to legalizing the market for private operators. In addition, a number of large Swedish operators such as Betsson and LeoVegas had offered and advertised sports betting services targeting Swedish customers prior to legalization, increasing marketing activity within the jurisdiction.

Similarly, advertising from prominent global sports betting operators such as Bet365 and Betway contributed to increased unregulated market shares in Canada. Both Swedish and Canadian markets observed approximately 60% of total revenues going to unregulated operators prior to legalization. Given similar demand for sports betting from consumers as demonstrated by similar Online Unregulated GGR pre-legalization, the growth trajectory for regulated sports betting in Canada could be similar to Sweden's given the right conditions.

Similar to Denmark, Sweden had transitioned from a state monopoly on sports betting activities to a competitive and open market. However, the size of the "grey market" in Sweden was much larger compared to Denmark, despite the availability of online sports betting established by the state. Given a favourable tax rate of 18% GGR, Online Unregulated GGR decreased by almost 75% in the first year post-legalization (from US\$325.8 million to US\$82.3 million in GGR). Meanwhile, legal and licensed online operators saw an increase in GGR three times the size of the existing legal online market, from US\$110.6 million pre-legalization to US\$453.9 million in GGR post-legalization. A number of the largest global players, including Bet365, William Hill and Betway, have established their platforms in the jurisdiction.

In the year prior to legalization, Online Unregulated GGR was 1.5 times the size of GGR for regulated operators (Land-based and online). In the first year post-legalization, GGR for regulated operators (Land-based and online) was 6.5 times the size of Online Unregulated GGR. Given a relatively low tax rate on operators in the first year post-legalization, and no restrictions on betting products, deposits or licensing, a larger amount of channelization was observed post-legalization, as well as a greater amount of growth in Online Regulated GGR. No taxes on winnings were levied for consumers who used operators within the European Union (EU). However, given the presence of many large operators headquartered in the EU, this did not seem to deter the large amounts of GGR channelized post-legalization.

While Sweden's online sports betting GGR per adult prior to legalization was greater than Canada's, comparable levels of GDP/adult in each jurisdiction could indicate that GGR per adult post-legalization

could be similar based on the ability to spend on regulated sports betting products. In 2018, Sweden's GDP per adult was approximately CA\$85,000 per adult, compared to around CA\$81,000 per adult in Canada. Given that Sweden had already established state-regulated sports betting channels prior to the introduction of private operators, it is expected that exposure to regulated sports betting options has been much higher for Swedish consumers. A similar exposure for Canadian audiences could potentially generate as much GGR per adult once private operators are legal within the jurisdiction.

Since Sweden has only recently started to open the market for online sports betting, longer-term effects on the state of unregulated operations are still to be determined.

Pre-legalization Post-legalization 700 Total Market 386 395 431 465 536 621 600 Land-based 500 109 400 111 121 90 454 300 Online Regulated 74 60 200 100 214 82 Online Unregulated 0 2014 2015 2016 2017 2018 2019 0% Share of GGR (%) Land-based 20% 21 17 19 40% 15 14 73 Online Regulated 60% 54 80% Online Unregulated 100%

Figure 9: Sweden sports betting GGR by channel (2014-2019)²¹

Source: H2 Gambling Capital

Key takeaways from shortlisted jurisdictions' experience

As observed in the experiences of the above shortlisted juridictions, private operators are attracted to jurisdictions that establish an open regulatory system with a tax regime that enables them to operate profitably. Under these circumstances, post-legalization growth is driven by new and existing operators investing in the market as well as channelization as unregulated activity moves into the regulated market. The following summarizes the key impacts for open and reasonably taxed jurisdictions:

1. The overall regulated market grows as:

- Operators invest in the market and grow market share (both online and Land-based) offering new products to customers; and
- There is an increased penetration of online gambling as customers become more comfortable with gambling online.

2. There is a shift in Online Unregulated GGR to Online Regulated GGR (channelization) as a result of:

- Operators previously serving the market without a local licence becoming licensed; and
- Certain unregulated operators deciding to exit the market rather than obtain a licence and player spend shifting to licensed regulated operators.

PwC | Compass Rose Group 28

-

²¹ For the purposes of modelling a two year post-legalization market size, due to data restrictions with regards to Sweden's post-legalization trajectory and given its recent legalization efforts, we have assumed second-year post-legalization trends in online activity will broadly reflect a continuation of first-year impacts.

3.5 Post-legalization market sizing scenarios for Canada

3.5.1 Scenario composition

We acknowledge that different outcomes could be experienced in two jurisdictions despite sharing the same regulatory and taxation regime. However, we also believe that in the absence of any other tools, the use of jurisdictions with similar culture, pre-legalization betting habits, as well as a regulatory and tax regime similar to our assumed one, is a useful base for post-legalization market sizing. We further note that our review of various jurisdictions in North America and Western Europe suggest that, in general, a more open market and lower tax regime had a similar directional impact (i.e. larger regulated market and larger shift from unregulated market to regulated market).

On the basis of the above, we have sized Canada's post-legalization market based on precedents set by shortlisted jurisdictions that have established regimes that are broadly in line with our assumed post-legalization regulatory framework for Canada. This allowed us to observe and apply different channelization and growth experiences to build a view of the size of the future post-legalization sports betting market in Canada, given the legislative framework assumed by us for the purpose of this study. The different experiences of jurisdictions that established legislative frameworks similar to the one assumed by us were used to develop a range of expected outcomes for Canada that we refer to in this study as Low Growth and High Growth market sizing scenarios. In doing so, we have separately modelled Land-based and online GGR trajectories for Canada.

Land-based trajectory

Delaware's post-legalization GGR trajectory was used to proxy the future size of Canada's sports betting market in all market sizing scenarios. Delaware previously offered parlay sports betting in casinos and retailers before regulating single-event betting; its Land-based trajectory is the most similar to Canada's assumed regulatory transition for Land-based sports betting.

Online trajectory

For online sports betting, Denmark and Sweden's post-legalization GGR trajectories were used to model the online GGR trajectory of Canada's online (both regulated and unregulated) sports betting market. We have used the experiences of these two jurisdictions to develop Low Growth and High Growth market sizing scenarios for Canada.

The composition of our two market sizing scenarios, with respect to the post-legalization jurisdictional trajectories applied in each, is summarized below.

Table 6: Composition of market sizing scenarios

Channel	Jurisdictional trajectory	Scenario 1: Low Growth	Scenario 2: High Growth
Land-based	Delaware (U.S.)	✓	✓
Online	Denmark	✓	
	Sweden		√

3.5.2 Scenario time horizon

Post-legalization market sizing results for all scenarios generated in our analysis reflect GGR levels two years post-legalization. This was driven by the following considerations:

- Two years post-legalization reflects a steady state of the market, in which most private operators who intend to obtain licences and establish their presence in the regulated market have done so.
- Two years post-legalization allows for provincial operators to implement their own product offerings, both Land-based and online.
- The error and uncertainty of the future market sizing estimation process increases with the time horizon. This includes additional changes to the assumed regulatory framework that may be implemented over time.

3.5.3 Scenario caveats

The following elements should be considered when interpreting our market sizing results:

- Cannibalization effects As our scenarios discretely model GGR trajectories in the Land-based and online market channels, we have not accounted for how the post-legalization growth in either of these sectors could cannibalize each other. However, we do not believe this impact to be material. This is based on the experience of multiple Western European jurisdictions that have undergone gambling market liberalization efforts (including Spain, Denmark, Italy and France) in which regulation of the online channel and its subsequent growth did not cannibalize the offline (Land-based) channel in a material fashion. All else equal, this phenomenon has the potential to overstate our projected channelization to regulated channels, post-legalization.
- **Definition of unregulated gambling activity** As outlined in Section 2, our estimation of Canada's current unregulated market for sports betting includes operators without a local licence serving the Canadian market, e.g. through a dot com domain and typically licensed and established in another jurisdiction. We have not included GGR estimates of "black market" operators who do not have a licence to operate in any jurisdiction. Reliably estimating the GGR of these activities is notoriously difficult. All else equal, given that we are not including "black market" estimations as part of our definition of "unregulated activity", this would understate the existing size of Canada's unregulated market and channelization to regulated operators post-legalization; subsequently, our projection would be understated. Refer to Appendix B for more information.
- **Definition of betting activity in H2 data** As outlined in Section 2, our estimation of Canada's current unregulated sports betting market includes horse racing activity, per H2's definition. The estimation of Online Unregulated GGR could be smaller than what is shown in the data, given the inclusion of horse racing is included in the measurement of betting activities. All else equal, this could overstate the existing size of Canada's sports betting market and channelization to regulated channels, post-legalization.
- Jurisdictional comparability Jurisdictions' GGR trajectories post-legalization have been used to
 model Canada's potential market size post-legalization. We have shortlisted selected jurisdictions
 based on applying criteria to select those most relevant to Canada's existing circumstances and
 assumed post-legalization framework. In addition, our post-legalization market sizing approach
 applies GGR/adult impacts to control for population discrepancies between shortlisted jurisdictions
 and Canada.
 - However, differences and nuances between jurisdictions are unavoidable, in terms of their respective pre-legalization markets, regulatory changes enacted, post-legalization frameworks and consumers' responses post-legalization. All else equal, this may either overstate or understate the existing size of Canada's sports betting market and channelization to regulated channels, post-legalization.
- Provincial uniformity Our post-legalization market sizing is based on an assumed post-legalization regulatory framework for all provinces and territories. Given the uncertainty of how each province will regulate their respective markets, we have not assumed separate provincial regulatory frameworks or

responses (including with regards to timing). All else equal, this may either overstate or understate the existing size of Canada's sports betting market and channelization to regulated channels, post-legalization. Refer to Appendix E for an indicative, top-down allocation of Canada's GGR impacts to provinces.

3.6 Market sizing results for Canada

In this section, we are applying the experience of the shortlisted jurisdictions onto Canada's pre-legalization levels (as of 2019), as presented in Section 2 of this report. In this regard, we are assuming that all Canadian provinces will move to legalize single-event sports betting and implement the post-legalization regulatory framework assumed by us for the purpose of this study.

3.6.1 Summary results for Canada

On the basis of our assumptions and the outcomes in the shortlisted jurisdictions, the regulated sports betting market in Canada was estimated to reach levels between CA\$1.5 billion to CA\$2.4 billion in the second year post-legalization, compared to CA\$241.7 million pre-legalization. Under both Low Growth and High Growth scenarios, Online Regulated GGR is expected to exceed Land-based GGR post-legalization, which was not the case pre-legalization. Land-based revenues in both scenarios are expected to increase from CA\$222.5 million to CA\$591.6 million in GGR.

In the Low Growth scenario, a moderate decrease in Online Unregulated GGR accompanied by a sizable increase in Online Regulated GGR is expected. A decrease in Online Unregulated GGR from CA\$322.7 million to CA\$258.3 million is expected (a decrease of 20.0%), while Online Regulated GGR is expected to increase from CA\$19.2 million to CA\$877.1 million.

In the High Growth scenario, a large decrease in Online Unregulated GGR accompanied by a large increase in Online Regulated GGR is expected. A decrease in Online Unregulated GGR from CA\$322.7 million to CA\$81.9 million is expected (a decrease of 74.6%), while Online Regulated GGR is expected to increase from CA\$19.2 million to CA\$1.8 billion.

Table 7: Summary GGR results for Canada (CA\$, Million)²²

		Duo lo malimation	Post-legalization (year 2)			
Market Component	Channel	Pre-legalization (2019)	Scenario 1: Low Growth	Scenario 2: High Growth		
	Online Regulated	19.2	877.1	1,824.3		
Regulated Market	Land-based	222.5	591.6	591.6		
	Total Regulated	241.7	1,468.8	2,416.0		
Unregulated Market	Online Unregulated ("grey market")	322.7	258.3	81.9		
Total Market		564.4	1,727.0	2,497.9		

²² Totals may not sum due to rounding.

Table 8: Summary of post-legalization impacts on GGR for Canada by scenario

	Online Unregulated ("grey market")			Total Regulated		
	GGR (CA\$, Million)	Share of GGR	GGR Change (CA\$, Million)	GGR (CA\$, Million)	Share of GGR	GGR Change (CA\$, Million)
Scenario 1: Low Growth	258.3	15.0%	-64.4	1,468.8	85.0%	1,227.1
Scenario 2: High Growth	81.9	3.3%	-240.8	2,416.0	96.7%	2,174.3

3.6.2 Low Growth scenario results for Canada

Under the Low Growth scenario, the second year of the post-legalization market is estimated to produce CA\$1.5 billion in regulated GGR, an increase from CA\$241.7 million pre-legalization. Online Regulated GGR is expected to increase to CA\$877.1 million (from CA\$19.2 million, pre-legalization), while Online Unregulated GGR is expected to decrease to CA\$258.3 million (from CA\$322.7 million, pre-legalization).

Table 9: Low Growth scenario, summary GGR results for Canada²³

Market Component	Channel	Pre-legalization (2019)		Post-legaliza	GGR change from	
		GGR (CA\$, Million)	Share of total GGR	GGR (CA\$, Million)	Share of total GGR	pre-legalization (CA\$, Million)
	Online Regulated	19.2	3.4%	877.1	50.8%	857.9
Regulated Market	Land-based	222.5	39.4%	591.6	34.3%	369.1
	Total regulated	241.7	42.8%	1,468.8	85.0%	1227.1
Unregulated Market	Online Unregulated ("grey market")	322.7	57.2%	258.3	15.0%	-64.4
Total Market		564.4	100%	1,727.0	100.0%	1,162.6

3.6.3 High Growth scenario results for Canada

Under the High Growth scenario, the second year of the post-legalization market is estimated to produce CA\$2.4 billion in regulated GGR, an increase from CA\$241.7 million pre-legalization. Online Regulated GGR is expected to increase to CA\$1.82 billion (from CA\$19.2 million, pre-legalization), while Online Unregulated GGR is expected to decrease to CA\$81.9 million (from CA\$322.7 million, pre-legalization).

PwC | Compass Rose Group 32

²³ Totals may not sum due to rounding.

Table 10: High Growth scenario, summary GGR results for Canada²⁴

Market Component	Channel	Pre-legalization (2019)		Post-legalization (year 2)		GGR change	
		GGR (CA\$, Million)	Share of total GGR	GGR (CA\$, Million)	Share of total GGR	from pre-legalization (CA\$, Million)	
Regulated Market	Online Regulated	19.2	3.4%	1,824.3	73.0%	1,805.1	
	Land-based	222.5	39.4%	591.6	23.7%	369.1	
	Total regulated	241.7	42.8%	2,416.0	96.7%	2,174.3	
Unregulated Market	Online Unregulated ("grey market")	322.7	57.2%	81.9	3.3%	-240.8	
Total Market		564.4	100%	2,497.9	100%	1,933.5	

3.7 Sizing a more restrictive post-legalization market

3.7.1 Scenario composition

For comparative purposes, we have also specified and generated market sizing results for a more restrictive post-legalization sports betting market. Note that the scenario time horizon and caveats outlined for our Low Growth and High Growth scenarios are also applicable to our Restrictive scenario.

We note this analysis does not relate to a fully "monopolized" post-legalization market with a single state operator. This regime, post-legalization, has not been adopted in any of the North America or Western Europe juridictions reviewed in this study. However, relative to our market sizing scenarios, this Restrictive scenario, based on relatively higher taxation levels, is a proxy to a monopolized regime, as a large number of competitors does not allow economies of scale that, combined with high taxation, may lead to unsustainably low or negative profits. Thus, a natural monopoly that can utilize economies of scale is a reasonable outcome of a high taxation scenario.

The key differentiator between the previously outlined scenarios and the Restrictive scenario is that, given its higher taxation regime, Portugal's online sports betting GGR trajectory has been used to size Canada's future sports betting market (in place of Denmark and Sweden for the Low and High Growth scenarios, respectively).

As is consistent with our approach for specifying our Low and High Growth scenarios, the Restrictive scenario was specified based on the post-legalization sports betting GGR trajectory experienced internationally.

• Land-based trajectory: Consistent with our approach in Section 3.5, Delaware's post-legalization GGR trajectory was used to proxy the future size of Canada's Land-based sports betting market in the Restrictive scenario.

PwC | Compass Rose Group 33

²⁴ Totals may not sum due to rounding.

Online trajectory: Portugal's post-legalization GGR trajectory was used to model the online GGR trajectory of Canada's Online Regulated and Online Unregulated sports betting GGR in the Restrictive scenario.

3.7.2 Portugal's experience

The sports betting market in Portugal prior to legalization restricted products to only be offered by *Santa Casa da Misericórdia de Lisboa*, a charitable organization appointed by the government to operate and regulate the delivery of sports betting activities. In 2015, legislation to open the online sports betting market to private operators was passed, with the first licences granted in 2016. However, the tax for operators was set at 8% on stakes²⁵, which was comparatively much higher than what operators had to pay in other jurisdictions. As a result, many of the larger global operators who have captured a large proportion of the existing consumer demand chose to keep their operations unregulated.

Within the first year that sports betting was legal online, Online Unregulated GGR decreased by US\$2 million (a decrease of 3.4%), from US\$58.2 million to US\$56.2 million. This is comparatively less than what was observed in jurisdictions such as Denmark and Sweden post-legalization. Online Unregulated GGR continued to represent 54.3% of all online GGR. Meanwhile, the Online Regulated GGR was US\$47 million in its first year (from \$0 pre-legalization), representing 45.7% of all online GGR.

It was also observed that after an initial decrease in Online Unregulated GGR post-legalization, GGR in that market continued to slightly increase throughout the years. The Online Regulated market added a greater amount of GGR, but a large portion of the Online Unregulated market continued to exist given the failure to attract large operators with an established consumer base to join the regulated market, with 33.2% of online GGR accounted for by Online Unregulated activity in 2019. As a result, Portugal's post-legalization Online Unregulated market is a greater proportion of total sports betting GGR than what was observed in Sweden and Denmark.

While no restrictions were imposed on betting types, deposits, or advertising, limited profitability as a result of a high tax on stakes for licensed operators resulted in a smaller amount of channelization and a smaller amount of growth for Online Regulated GGR.

Canadian demand in 2019 (the baseline year pre-legalization) for online sports betting products was slightly higher than Portugal's in 2015 (the year pre-legalization). Online (unregulated plus regulated) GGR per adult in Portugal was CA\$10.7²⁶ in 2015, compared to CA\$12.1 per adult in Canada in 2019. In addition, Portugal's demand for sports betting as a proportion of economic activity (GGR-to-GDP) in 2015 was 0.035%, compared to 0.024% for Canada in 2019. While the size of demand for sports betting is larger compared to overall economic activity in Portugal, similarities in relative consumer spend makes post-legalization scenarios more likely to be comparable between jurisdictions.

 $^{^{25}}$ This is equivalent to an approximately 40% GGR tax, based on a 20% hold.

²⁶ Calculated based on the exchange rate from U.S. dollars to Canadian dollars in 2015.

Pre-legalization Post-legalization 350 43 53 57 89 256 310 300 GGR (\$M, USD) 250 Land-based 200 150 100 Online Regulated 47 50 Online Unregulated 0 2011 2012 2013 2014 2015 2016 2017 0% Share of GGR (%) 20% Land-based 40% 60% 18 26 Online Regulated 80% Online Unregulated 100%

Figure 10: Portugal sports betting GGR by channel (2011-2017)

Source: H2 Gambling Capital

3.7.3 Restrictive scenario results for Canada

In the Restrictive scenario, the second year of the post-legalization is estimated to produce CA\$962.9 million in GGR, an increase from CA\$241.7 million pre-legalization. Online Regulated GGR is expected to increase to CA\$371.3 billion (from CA\$19.2 million, pre-legalization), while Online Unregulated GGR is expected to decrease to CA\$315.6 million (from CA\$322.7 million, pre-legalization). A summary of the Restrictive scenario results are presented in Table 11.

The Restrictive scenario was modelled based on a stakes tax on online gambling activities²⁷, which could disincentivize many operators from entering the regulated market for online betting. It can be expected that a considerable number of large established operators would choose to continue offering their services in the unregulated market instead. The exclusion of larger global sports betting operators in the regulated market could continue to keep a significant portion of demand unregulated.

Table 11: Restrictive scenario, summary GGR results for Canada²⁸

Market Component		Pre-legalization (2019)		Post-legalization (year 2)		GGR change	
	Channel	GGR (CA\$, Million)	Share of total GGR	GGR (CA\$, Million)	Share of total GGR	from pre-legalization (CA\$, Million)	
	Online Regulated	19.2	3.4%	371.3	29.0%	352.1	
Regulated Market	Land-based	222.5	39.4%	591.6	46.3%	369.1	
	Total regulated	241.7	42.8%	962.9	75.3%	721.2	
Unregulated Market	Online Unregulated ("grey market")	322.7	57.2%	315.6	24.7%	-7.0	
Total Market		564.4	100%	1,278.6	100%	714.2	

²⁷ 8% tax on stakes (equivalent to an approximately 40% GGR tax, based on a 20% hold).

²⁸ Totals may not sum due to rounding.

4. Economic and fiscal implications

This section discusses the economic and fiscal implications, with a focus on potential gambling tax-base impacts, associated with the development of a future sports betting market in Canada, post-legalization of single-event sports betting.

4.1 Overview of gambling taxation approaches

As described in Sections 2 and 3, regulators and fiscal authorities across the globe can take a wide range of approaches when regulating their gambling markets, including decisions around the nature of the regulation (e.g. which products to regulate, the number of licences to grant, licensing requirements), as well as the tax-base and associated tax rate to apply.

Gambling taxes can be applied in the industry in a number of different ways, the most common of which are:

- **1. A GGR tax -** Gross Gaming Revenue (GGR) as the tax-base. This is the most common form of gambling tax being introduced today.
- 2. A tax on stakes (or a "tax on turnover") i.e. the total monies gambled as the tax-base. There are fewer examples of markets where this has been introduced in recent years (or is proposed to be introduced).

Customer stakes

2 main forms of gambling taxation

Tax on stakes

Tax on GGR

Pay-out (to customer)

GGR (operator revenue)

Figure 11: GGR tax vs tax on stakes

All else equal, a tax on GGR is likely to lead to higher absorption and stronger market growth in the regulated market (and a smaller unregulated market) than a tax on stakes; economic theory suggests that a tax on GGR will incentivize operators to pursue a low margin (i.e. low price), high turnover strategy (as this would lower the amount of tax paid as a proportion of stakes), whereas a tax on stakes would

encourage operators to pursue a high margin (i.e. high price), low turnover strategy (in order to minimize the tax paid as a proportion of profit).

This difference in operator incentives as a result of a tax on GGR as opposed to a tax on stakes suggests that a tax on GGR is better at aligning the interests of government and operators than a tax on stakes. As the online gambling market develops and matures, a tax on GGR may therefore be better able to accommodate product innovation.

4.2 Modelling post-legalization gambling taxation impacts for Canada

4.2.1 Tax revenue impacts under the Low and High Growth scenarios

Post-legalization gambling tax increases have been calculated on an incremental basis, based on our findings presented in Section 3. In other words, the differences between pre-legalization and post-legalization GGR levels (the assumed tax-base for the Low and High Growth scenarios) are the focus of this analysis. The incremental GGR impacts represent the changes to the taxable base of Canada's regulated sports betting market. These results, as calculated in Section 3, are summarized below.

Table 12: Summary GGR results, incremental GGR impact (CA\$, Million)²⁹

Market		Incremental impact (Post-legalization levels - Pre-legalization levels			
Component	Channel	Scenario 1: Low Growth	Scenario 2: High Growth		
	Online Regulated	857.9	1,805.1 369.1		
Regulated Market	Land-based	369.1			
	Total Regulated	1,227.1	2,174.3		
Unregulated Market	Online Unregulated ³⁰ ("grey market")	-64.4	-240.8		
Total Market		1,162.7	1,933.5		

For illustrative purposes only, these incremental changes can be converted into tax take results by applying potential GGR tax rates for each scenario, as follows:

Table 13: Tax rates applied by scenario³¹

Scenario 1: Low Growth	Scenario 2: High Growth			
A 50% GGR tax on Land-based GGRA 20% tax on Online Regulated GGR	A 50% GGR tax on Land-based GGRAn 18% tax on Online Regulated GGR			

The application of the above gambling taxation rates to the incremental growth in each scenario's regulated tax-base yielded the following tax revenue impacts for each scenario. Note that we have also

²⁹ Totals may not sum due to rounding.

³⁰ Post-legalization, GGR declines in both scenarios relative to pre-legalization levels.

³¹ For illustrative purposes only and based on rates levied in relevant shortlisted jurisdictions for each scenario.

calculated uncaptured unregulated taxes for each scenario post-legalization. These results are outlined below:

Table 14: Summary tax revenue results, incremental impact on tax take (CA\$, Million)³²

Market Component	Channel	Scenario 1: Low Growth	Scenario 2: High Growth
	Online Regulated	171.6	324.9
Pagulated Market	Land-based	184.6	184.6
Regulated Market	Total regulated tax revenue increase (based on illustrative rates)	356.2	509.5
Unregulated Market	Uncaptured unregulated tax revenue, post-legalization ³³	51.7	14.7

4.2.2 Tax revenue impacts under the Restrictive scenario

Post-legalization gambling tax revenue increases have been calculated on an incremental basis, based on our findings presented in Section 3. In other words, the difference between pre-legalization and post-legalization stakes levels (the assumed tax-base under the Restrictive scenario)³⁴, are the focus of this analysis. The incremental GGR impacts represent the changes to the taxable base of Canada's regulated sports betting market. These results, as calculated in Section 3, are summarized below. Note that these impacts are less pronounced than those estimated in the Low and High Growth scenarios (in 4.2.1).

Table 15: Summary GGR results, incremental GGR impact (CA\$, Million)³⁵

Market Component	Channel	Incremental impact (Post-legalization levels Pre-legalization levels)			
market compension	Citatino	Restrictive scenario			
	Online Regulated	352.1			
Regulated Market	Land-based	369.1			
	Total Regulated	721.2			
Unregulated Market	Online Unregulated ("grey market") ³⁶	-7.0			
Total Market		714.2			

³² Totals may not sum due to rounding.

³³ Represents the potential unregulated tax take, currently uncaptured. Calculated through multiplying the post-legalization Online Unregulated GGR by the assumed Online Regulated tax rates in each scenario.

³⁴ Under the Restrictive scenario, a 20% hold has been assumed as a tax on stakes based on a high-price, low turnover strategy (refer to Section 4.1). This is equivalent to a 40% GGR tax.

³⁵ Totals may not sum due to rounding.

³⁶ Post-legalization, GGR declines relative to pre-legalization levels.

The above incremental GGR impacts represent the changes to the taxable base of Canada's regulated sports betting market (including the reduction in Online Unregulated GGR).

For illustrative purposes only, these incremental changes can be converted into tax take results through applying potential GGR and stakes tax rates, as follows:

- A 50% GGR tax on Land-based GGR
- An 8%³⁷ stakes tax on Online Regulated turnover

The application of the above gambling taxation rates to the incremental increases in the Restrictive scenario's regulated tax-base yielded the following taxation impacts. Note that we have also calculated uncaptured unregulated taxes post-legalization for the Restrictive scenario. These results are outlined below:

Table 16: Summary taxation revenue results, incremental impact on tax take (CA\$, Million)³⁸

Market Component	Channel	Restrictive Scenario	
Regulated Market	Online Regulated	140.8 ³⁹	
	Land-based	184.6	
	Total regulated tax revenue increase (based on illustrative rates)	325.4	
Unregulated Market	Uncaptured unregulated tax revenue, post-legalization ⁴⁰	126.3	

4.3 Modelling other post-legalization economic impacts for Canada

In this report we have focused on potential impacts to gambling tax-bases, post-legalization. There are, however, a number of other economic benefits to consider. Specifically, the employment and GDP impacts associated with the incremental growth in regulated gambling GGR in Canada, post-legalization. These impacts have been modelled using an economic footprint modelling approach.

4.3.1 Overview of economic footprint modelling scope

While our above analysis details an incremental GGR uplift in Canada for the purposes of generating tax impact estimates, estimating the non-taxation economic impacts (jobs, GDP, etc.) associated with this activity is not as clear cut, specifically the increases in Online Regulated GGR.

Internationally-based sportsbooks currently account for the majority of unregulated sports betting activity in Canada and will likely continue to do so as they license and commence offering regulated sports betting products post-legalization in Canada. While there will be some role for Canadian-based operators (both existing players such as the provincial lotteries and new local Canadian market entrants) to offer online sports betting products post-legalization, the composition of a post-legalization Online Regulated market, in terms of how much GGR will be generated by international vs. local Canadian (private players

PwC | Compass Rose Group 39

_

³⁷ According to Thomson Reuters Practical Law

Totals may not sum due to rounding.

³⁹ Calculation based off an 8% tax on stakes, and 20% hold (equivalent to a 40% GGR tax). A tax on stakes incentivizes operators to use a high-price, low turnover strategy (refer to Section 4.1). In all other scenarios, a standard 10% hold was implicitly assumed

⁴⁰ Represents the potential unregulated tax take, currently uncaptured. Calculated through multiplying the post-legalization Online Unregulated GGR by the assumed Online Regulated tax rates in each scenario.

and lotteries), is not currently known. To the extent that the online sports betting products would be offered by operators located outside of Canada, their economic footprint in Canada is expected to be relatively low, as employment and procurement spending would generally take place overseas⁴¹.

Furthermore, the existing economic relationships and structure of Canada's gambling sector and overall economy (as reflected in Statistics Canada's Input-Output tables) does not reflect a presence of international sports books or a significant online betting sector in Canada's economy.

We have hence focused the following economic footprint modelling (quantifying impacts on jobs, GDP, etc.) on the incremental economic impact benefits for Canada's Land-based gambling sector, post-legalization.

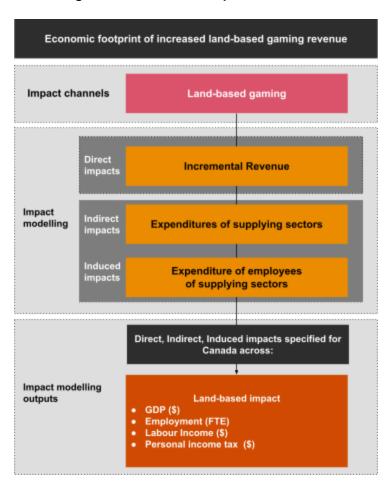
4.3.2 Economic footprint modelling framework

Our economic footprint modelling framework provides quantitative estimates of GDP and employment impacts at the Direct, Indirect and Induced levels using an Input-Output (I-O modelling approach. These impacts, individually and collectively, represent how the activities associated with increased regulated gaming GGR ripple throughout Canada's economy. For the purpose of this report, economic impact was estimated for the following measures of economic activity:

- Direct impacts result from companies' spending on suppliers and employees.
- Indirect impacts arise from the activities
 of the firms providing inputs to a
 company's suppliers
 (in other words, the suppliers of its
 suppliers).
- Induced impacts are the result of consumer spending by employees of the businesses stimulated by direct and indirect expenditures.
- The **Total** economic impact is equal to the sum of the Direct, Indirect and Induced economic impacts.

Economic impacts are estimated for the following measures of economic activity:

Figure 12: Economic footprint framework



Value added or Gross Domestic Product (GDP) - The value added to the economy, or the output
valued at basic prices less intermediate consumption valued at purchasers' prices. GDP includes only
final goods to avoid double counting of products sold during a certain accounting period;

⁴¹ There may, however, be some domestic activity (and economic impact) associated with online sports betting procurement and employment activities taking place in Canada post-legalization.

- **Employment** The number of jobs created or supported. It is expressed as the number of full-time equivalent (FTE) jobs indicated in person years;
- Labour income Associated with the above employment expected to be generated; and
- **Personal Income Tax (PIT)** The amount of provincial and federal revenues generated from taxes on the income of employees and self-employed individuals⁴².

We have modelled impacts on these metrics through the application of Statistic Canada's I-O model, applying a revenue "shock" to Canada's gambling sector. The magnitude of the shock applied is equivalent to the incremental Land-based GGR generated in Canada, post-legalization, which is equivalent across all scenarios (CA\$369 million).

4.3.3 Economic footprint modelling results

Table 17: Summary economic footprint modelling results⁴³

	Direct	Indirect	Induced	Total
GDP (CA\$ Million)	\$149.1	\$163.9	\$112.2	\$425.2
Jobs (full-time equivalents, person years)	1,061	1,147	469	2,678
Labour income (CA\$, Million)	\$98.2	\$103.7	\$45.8	\$247.7
Personal Income Tax (CA\$, Million)	\$23.7	\$25.1	\$11.1	\$59.8

An indicative, top-down allocation of these impacts to provinces based on existing provincial shares of Land-based GGR is provided in Appendix F.

4.4 Other socio-economic implications

Our discussion of the economic implications associated with legalization of single-event sports betting has focused on potential gambling tax-base impacts as well as the potential uplift in domestic economic activity. There are, however, other socio-economic factors to consider, which we have outlined at a high level below.

4.4.1 Problem gambling and player protection

Policymakers, as well as society at large, are often concerned with the incidence and impact of "problem gambling". We do not propose to review the extensive literature on problem gambling here; however, it is important to note that in this area, regulations and taxes are likely to have some impact on problem gambling, although this is not always obvious.

The increases to provincial governments' tax-bases associated with the legalization of single-event sports betting (as outlined in Section 4.2) gives provinces additional tax revenue that could potentially be put toward increased funding of their respective problem gambling programs and initiatives. As all provinces have programs in place that target problem gambling, some of these organizations and programs that

PwC | Compass Rose Group 41

-

⁴² Personal income tax was estimated using the value of labour income (a component of GDP calculated in the economic model) with the ratio of labour income to personal income tax receipts for each province in 2017 based on Statistics Canada Data.

⁴³ Land-based impact. Applicable to all market sizing scenarios. Sum of Direct, Indirect and Induced Impact. Totals may not sum due to rounding.

could receive a portion of the tax revenues include the British Columbia Responsible & Problem Gambling Program, ConnexOntario, etc.

While establishing a correlation between changes in gambling regulation and the incidence of problem gambling is difficult, we would expect there to be an indirect relationship between more stringent regulation of the online market and the incidence and nature of some of the unintended "problem" consequences.

High levels of channelization of unregulated market activity into the regulated market can be beneficial in terms of ensuring higher levels of player protection, as evidenced from the licensing requirements on gambling operators in regulated markets. Licensed operators are typically required by law (e.g. in Sweden and Denmark) to take a number of steps to ensure player protection and to address problem gambling, including:

- Requirements to prevent minors from gaming.
- Being required to guarantee the safety of player funds and personal information to guard against
 money laundering and other illegal practices, as well as to provide facilities which allow players to
 either limit the amounts they bet or to self-exclude themselves from gaming.
- Being required to provide advice on problem gambling on their websites and to direct players to sources of further information and assistance.

These are all requirements that locally regulated operators are legally subject to. If these requirements are not met, regulated operators could be fined or face various penalties including, in some cases, the loss of their licence. In addition, for gambling activities under the regulatory purview of authorities, restrictions on stakes, age limits, as well as responsible gaming laws, are additional measures which could be put in place to reduce societal harm that stems from consumers and their potentially risky behaviour.

4.4.2 Sponsorship and advertising opportunities

A benefit to the wider economy from encouraging greater levels of regulated market growth could come through increased sports sponsorship from operators who choose to become regulated in Canada. This is consistent with what has been reported in the case of Denmark's post-legalization activities. In 2012, the Danish Superliga, the highest tier football league in Denmark, signed a three-year sponsorship deal with Betsafe, and the Danish 1st Division was renamed to Betsafe Liga 1. The overall sponsorship deal was estimated to be worth over €1 million at the time⁴⁴.

In 2018, Bet365 partnered with 10 teams in *La Liga*, the top professional division in Spain's football league system and the sixth largest sports league in the world in terms of revenue. In recent years, Bet365 continued to expand their brand recognition, sponsoring four football clubs in the English Premier League for the 2020-2021 season.

Shortly after the Swedish market became regulated, Unibet, a brand of Kindred Group (a Swedish company), signed a 12-year sponsorship deal with *Allsvenskan* and *Superettan*, the top two tiers of Swedish football. With the deal in effect starting in 2020, it is valued at an estimated US\$200 million.

In addition, assuming that the regulation of the domestic online market is accompanied by rules allowing for advertising of gambling products, we would expect there to be a significant uplift in advertising spending in the domestic market, particularly around the period of change (as has been observed in multiple international jurisdictions).

PwC | Compass Rose Group 42

-

⁴⁴ Gambling Compliance Report, "Gambling and Sports Funding in the Nordics".

Appendices

Appendix A: Study considerations

The conclusions expressed and information presented in this report rely on the following major assumptions:

- Completeness, reliability and accuracy of all external sources used in this report; and
- That the Statistics Canada Input-Output tables constitute a reasonable representation of the underlying relationships in the Canadian economy during the relevant periods modelled in the report.

We note that significant deviations from the above listed major assumptions may result in a significant change to our analysis.

Data limitations: PwC has relied on the information provided by a number of external sources, specifically H2 Gambling Capital. PwC has relied upon the completeness, accuracy and fair presentation of all information and data obtained from H2 Gambling Capital as well as from other sources, which were not audited or otherwise verified. The findings in this report are conditional upon such completeness, accuracy and fair presentation, which have not been verified independently by PwC. Accordingly, we provide no opinion, attestation or other form of assurance with respect to the results of this study.

Input-Output (I-O) modelling limitations: Like any economic model, the I-O model used to conduct this study is conceptually an abstraction that attempts to be complex enough to accurately capture and estimate the most significant impacts to the real-life economy caused by an economic activity, yet simple enough to be analytically and intuitively meaningful. This I-O analysis therefore implicitly assumes that the inter-industry relationships in Canada estimated in the I-O model constitute a reasonable representation of the underlying relationships in the economy during the relevant periods modelled in the report. Therefore, the I-O outputs reported in this study will not and cannot exactly equal "true" impacts, and the results should be interpreted with appropriate caution.

Generally, I-O analysis does not address whether the inputs have been used in the most productive manner or whether the use of these inputs in this industry promotes economic growth by more than their use in another industry or economic activity. I-O analysis also does not evaluate whether these inputs might be employed elsewhere in the economy if they were not employed in this industry at the time of the analysis. I-Oanalysis calculates the Direct, Indirect and Induced economic impacts that can reasonably be expected to affect the economy based on historical relationships within the economy. This analysis does not take into account fundamental shifts in the relationships within the economy that may have taken place since the estimation of industry relationships by Statistics Canada, nor shifts that may take place in the future.

Receipt of new data or facts: PwC reserves the right at its discretion to withdraw or make revisions to this report should we receive additional data or be made aware of facts existing at the date of the report that were not known to us when we prepared this report. The findings are as of January 2021, and PwC is under no obligation to advise any person of any change or matter brought to its attention after such date, which would affect our findings.

This report and related analysis must be considered as a whole: Selecting only portions of the analysis or the factors considered by us, without considering all factors and analysis together, could create a misleading view of our findings. The preparation of our analysis is a complex process and is not necessarily susceptible to partial analysis or summary description. Any attempt to do so could lead to undue emphasis on any particular factor or analysis.

Appendix B: Illustrative "black market" GGR impact

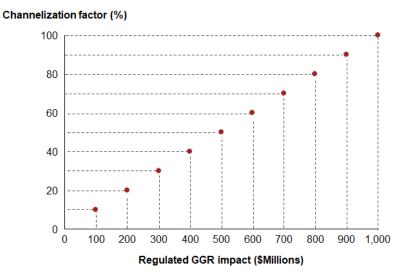
As indicated in the body of the report, we have used H2 estimates of Online Unregulated gambling in Canada to provide a view of Canada's "grey market" for sports betting and have modelled potential impacts to these activities, post-legalization of single-event sports betting in Canada. We have not included existing estimates of "black market" gambling activity in Canada or estimated the potential impacts to this activity, post-legalization in Canada in this study.

However, we note that the Canadian Gaming Association (CGA) has quoted a \$14 billion annual market (in stakes) for sports betting in Canada, comprising "\$10 billion through illegal bookmakers and a further \$4 billion through unregulated online sports wagering sites" While we have not verified these estimates, CGA's CA\$10 billion "illegal bookmaker" stakes estimate translates into CA\$1 billion of annual GGR through illegal bookmakers in Canada (assuming a 10% hold and that estimates were generated in Canadian dollars).

Post-legalization, some portion of this "black market" GGR could reasonably be expected to be channelized into Canada's regulated sports betting market. For example, the American Gaming Association (AGA) found that the legalization of sports gambling across the United States has reduced the amount being wagered in the black market, with spending through illegal bookmakers falling 25 percent in legal sports betting states in 2019, while legal online and mobile betting spend increased 12 percent ⁴⁶.

While the extent of this "black market" channelization has not been estimated for Canada, an illustrative application of a channelization factor (between 1% and 100%) to a CA\$1 billion "black market" estimate (in GGR terms) can demonstrate the range of potential impacts on regulated GGR in Canada's sports betting market. This illustrative calculation is shown below.

Figure 13: Illustrative "black market" channelization impacts on regulated GGR



⁴⁵ Canadian Gaming Association, <u>\$10 billion through illegal bookmakers and a further \$4 billion through offshore online sports wagering sites</u>

PwC | Compass Rose Group 45

.

⁴⁶ American Gaming Association, <u>2020 Survey of American Sports Bettors</u>

Appendix C: Web traffic analysis results

We have utilized SimilarWeb data to identify the largest gambling websites (in terms of traffic) in Canada. A summary of the top 20 individual websites is shown in the table below for SimilarWeb's "Gambling" and "Sports Betting" categories. We have chosen to analyze web traffic for gambling activities as a whole in addition to sports betting, as the sports betting category omits certain provincial websites that offer other gambling activities in addition to sports betting (e.g. bclc.com).

Table 18: Top 20 sites for sports betting and gambling in Canada (by traffic)⁴⁸

Sports I	Betting websites	Gambling websites		
Website	Share of Canada's Sports Betting traffic	Website	Share of Canada's Gambling traffic	
bet365.com	27.82%	bet365.com	8.95%	
betway.com	24.80%	betway.com	7.97%	
sportsinteraction.com	8.23%	olg.ca	7.79%	
bwin.com	3.45%	lotoquebec.com	4.04%	
proline.ca	0.88%	europacasino.com	3.13%	
pinnacle.com	0.65%	sportsinteraction.com	2.65%	
williamhill.com	0.64%	playnow.com	2.20%	
betfair.com	0.46%	espacejeux.com	2.10%	
betonline.ag	0.41%	wclc.com	1.76%	
888sport.com	0.38%	bclc.com	1.70%	
1xbet.com	0.22%	jackpotcitycasino.com	1.06%	
bookmaker.eu	0.10%	alc.ca	1.05%	
betsson.com	0.10%	bwin.com	0.98%	
bet-at-home.com	0.08%	bodog.eu	0.59%	
sports.10bet.com	0.07%	leovegas.com	0.48%	
betvictor.com	0.06%	kingbillycasino.com	0.41%	
betdsi.eu	0.06%	hpibet.com	0.40%	
sportingbet.com	0.05%	bobcasino.com	0.36%	

⁴⁷ Includes Casino, Lottery, Poker, Sports Betting and Other Gambling websites, as categorized by SimilarWeb.

⁴⁸ betway.com includes sports.betway.com, williamhill.com includes sports.williamhill.com, bwin.com includes sports.bwin.com and bclc.com includes lotto.bclc.com.

betcris.com	0.04%	jetbingo.com	0.35%
betwarrior.bet	0.03%	stake.com	0.34%
Total (top 20)	68.53%	Total (top 20)	48.31%

A high-level analysis of the top 20 sports betting sites in Canada (by web traffic) revealed:

• The majority of web traffic in Canada for sports betting sites is directed toward Online Unregulated operators, with Bet365, Betway and Sports Interaction among the most popular.

A high-level analysis of the top 20 gambling sites in Canada (by web traffic) revealed:

- Bet365 and Betway remain the most popular sites, with the two accounting for almost one fifth of total gambling traffic in Canada.
- Canadian provincial operators such as OLG and Loto-Québec received a large share of web traffic, with provincial operators accounting for 20.6% of total gambling web traffic.

Appendix D: Summary of jurisdictional analysis

Table 19: Overview of sports betting regulatory landscape of reviewed U.S. jurisdictions⁴⁹

	Overview of regulatory	Year of major	Tax regime			
Jurisdiction	landscape	regulatory change	Rate	Comments		
Delaware	 Single-event sports betting was legalized in 2018, and is offered at the states' three casinos. Online gambling is offered by the state's three racetracks using a platform provided by the Delaware Lottery. Online sports betting is currently unavailable, but is currently being considered. Sports lottery is available through retailers for parlay betting as well. 	2018	 50% of GGR 0.25% federal excise tax on stakes on top 	Sports lottery tax revenues partially fund horse racing purses		
Michigan	Online sports betting had been legalized in 2020, but no legal sportsbook available yet.	2020	 Land: 8.4% of GGR Online: 9.65% of GGR 0.25% federal excise tax on stakes on top 	Tax revenue will go toward School Aid Fund and health aid for firefighters		
Nevada	Only Land-based casinos currently have online gaming licences, but they can partner with international providers to offer online sportsbooks.	1949	3.50-6.75% of GGR0.25% federal excise tax on stakes on top	Education and health services are key recipients of tax revenue		
New Jersey	For online gaming and sports betting, Land-based casinos can operate independently or contract with online gaming providers.	2018	 Land: 9.75% of GGR Mobile/Online: 14.25% of GGR 0.25% federal excise tax on stakes on top 	1.25% of tax added on top as an "investment alternative tax" (used for tourism and marketing for Atlantic City)		
New York	Currently, sports betting is restricted to Land-based only. The		10% of GGR for casinos	New legislation also proposed 8.5% tax on GGR for casinos		

⁴⁹ A high-level summary of regulatory and legislative changes as well as tax regimes in each jurisdiction was conducted and is not comprehensive of all developments post-legalization.

legislation for online/mobile sports betting is pending approval, and will propose a 12% tax on GGR.	2019	0.25% federal excise tax on stakes on top	 Proposed that 5% of state taxes collected by the Gaming Commission would be put toward problem gambling and treatment
--	------	---	---

Table 20: Overview of sports betting regulatory landscape of reviewed western European jurisdictions⁵⁰

		Year of		Tax regime	
Jurisdiction	Overview of regulatory landscape	major — regulatory change	Rate	Comments	
France	The regulated landscape in France for online sports betting operators is not as liberal due to the high tax rate levied. As a result, Online Unregulated activity continues to grow, while many major unregulated operators have opted out of entering the regulated market. Limits placed on return to players have made the regulated market unattractive to consumers as well.	2010	9.3% of stakes	Budget bill passed for 2020 that would tax GGR instead of stakes. This would end up as a total rate of 27.9% for Land-based sports betting and 33.8% for Online Regulated operators, with a 10.7% tax on GGR for social security on top.	
Spain	While the legalization of the sports betting market to online operators was established, licensing and regulations in place are stricter and more complex compared to many other jurisdictions. Licensing windows, stake limits and restrictions on in-play betting for some jurisdictions are some examples of strict requirements in the jurisdiction.	2011 •	20% of GGR	Decreased from 25% of GGR in 2018	
Sweden	 Pre-legalization, there was a state-owned monopoly on sports betting, with both online and Land-based offerings. In the first year post-legalization, many online operators were able to obtain a licence. Restrictions were placed in 2020 due to the COVID-19 pandemic which include loss limits. 	2019	18% of GGR	Winnings for consumers are not taxed if the operator is in the European Union; otherwise consumers are subject to a 30% tax	
Denmark	 Pre-legalization, there was a state-owned monopoly on sports betting; however, only Land-based betting was available. Post-legalization, online operators were able to obtain a licence, and the state established its own online sports betting 	2012	20% of • GGR	Levied on all regulated products, excluding bingo or horse racing A 28% GGR tax has since been introduced and is expected to come into effect in 2021	

⁵⁰ A high-level summary of regulatory and legislative changes as well as tax regimes in each jurisdiction was conducted and is not comprehensive of all developments post-legalization.

	platform to compete.				
Portugal	 Prior to legalization, betting exchanges were operated as a monopoly in the Land-based channel. Post-legalization, online sports betting operators are able to obtain a licence. However, there is still a monopoly on Land-based betting. While legislation was passed in 2015, the availability of private Online Regulated operators started in 2016. 	2015	• 159 bet	• stakes % on ting chang	Proposed increase from 15% to 35% GGR for betting exchanges in 2020
United Kingdom	Sports betting has been legal in the United Kingdom for decades. While the gambling market is very liberal, the government has recently made greater efforts to increase oversight on activities, including a ban on credit cards and an increased focus on affordability. Announced in late 2020, the Gambling Act is set to undergo another review.	1960	• 15 ⁹ of (• % GGR	The United Kingdom government announced an increase in remote gaming duty in the Autumn Budget 2018 from 15% to 21% of GGR. This change came into effect from April 1, 2019.

Appendix E: Post-legalization GGR impacts, provincial allocation

Our post-legalization market sizing is based on an assumed post-legalization regulatory framework for Canada as a whole. Given the uncertainty of how each province will regulate their respective markets, we have not assumed separate provincial regulatory frameworks or responses. Further research and analysis is required to generate more granular estimates for Canadian provinces.

See below for indicative, top-down allocation of Canada's regulated market GGR impacts to provinces, based on existing provincial shares of Land-based GGR.

Ontario allocation

Table 21: Summary GGR results, incremental GGR impact (CA, \$Million)

	Incremental impact (Post-legalization levels - Pre-legalization levels)				
	Scenario 1: Low Growth	Scenario 2: High Growth			
Online Regulated	459.3	966.3			
Land-based	197.6	197.6			
Total Regulated	656.8	1,163.9			

Quebec allocation

Table 22: Summary GGR results, incremental GGR impact (CA, \$Million)

_	Incremental impact (Post-legalization levels - Pre-legalization levels)				
	Scenario 1: Low Growth	Scenario 2: High Growth			
Online Regulated	119.8	252.0			
Land-based	51.5	51.5			
Total Regulated	171.3	303.5			

British Columbia allocation

Table 23: Summary GGR results, incremental GGR impact (CA, \$Million)

_	Incremental impact (Post-legalizat	ion levels - Pre-legalization levels)	
	Scenario 1: Low Growth	Scenario 2: High Growth	
Online Regulated	132.8	279.5	
Land-based	57.2	57.2	
Total Regulated	190.0	336.7	

Alberta allocation

Table 24: Summary GGR results, incremental GGR impact (CA, \$Million)

	Incremental impact (Post-legalization levels - Pre-legalization levels)				
	Scenario 1:Low Growth	Scenario 2: High Growth			
Online Regulated	108.9	229.1			
Land-based	46.8	46.8			
Total Regulated	155.7	275.9			

Rest of Canada allocation

Table 25: Summary GGR results, incremental GGR impact (CA, \$Million)

	Incremental impact (Post-legalizat	ion levels - Pre-legalization levels)	
	Scenario 1:Low Growth	Scenario 2: High Growth	
Online Regulated	37.2	78.2	
Land-based	16.0	16.0	
Total Regulated	53.2	94.2	

Appendix F: Economic footprint results breakdown, by province

See below for indicative, top-down allocation of the post-legalization economic impacts generated for Canada in Section 4.3 to provinces, based on existing provincial shares of Land-based GGR.

Results, provincial breakdown

Table 26: Summary results, Total economic impacts⁵¹

	Ontario	Quebec	British Columbia	Alberta	Other provinces and territories	Total Canada
GDP (CA\$, Million)	\$227.6	\$59.4	\$65.8	\$54.0	\$18.4	\$425.2
Jobs (full-time equivalents, person years)	1,433	374	415	340	116	2,678
Labour income (CA\$, Million)	\$132.6	\$34.6	\$38.3	\$31.4	\$10.7	\$247.7
Personal Income Tax (CA\$, Million)	\$32.0	\$8.4	\$9.3	\$7.6	\$2.6	\$59.8

Table 27: Summary results, Direct economic impacts

	Ontario	Quebec	British Columbia	Alberta	Other provinces and territories	Total Canada
GDP (CA\$, Million)	\$79.8	\$20.8	\$23.1	\$18.9	\$6.5	\$149.1
Jobs (full-time equivalents, person years)	568	148	164	135	46	1,061
Labour income (CA\$, Million)	\$52.6	\$13.7	\$15.2	\$12.5	\$4.3	\$98.2
Personal Income Tax (CA\$, Million)	\$12.7	\$3.3	\$3.7	\$3.0	\$1.0	\$23.7

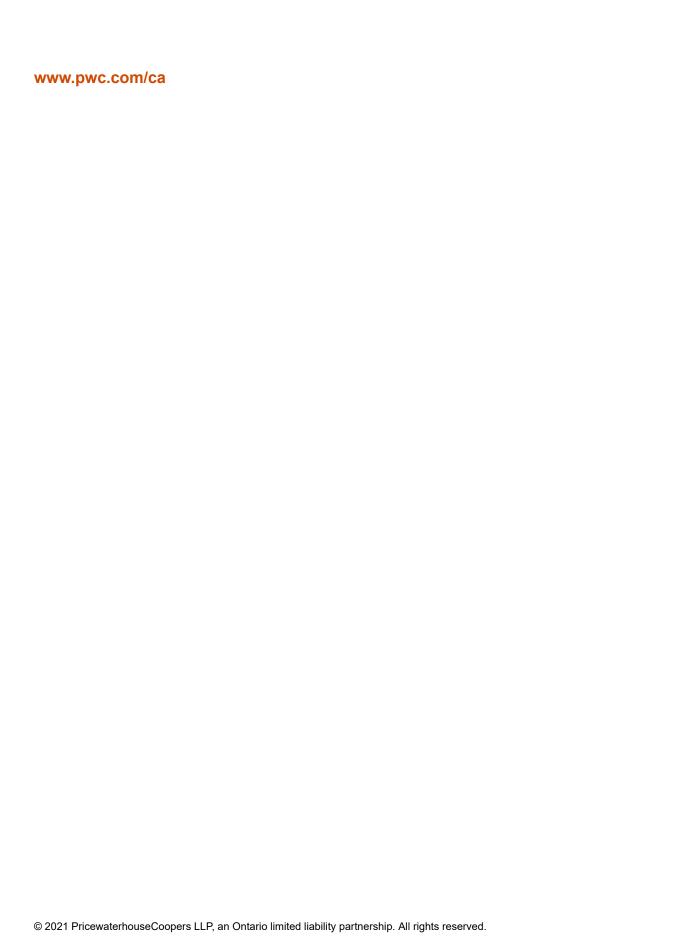
⁵¹ Sum of Direct, Indirect and Induced Impact. Totals may not sum due to rounding.

Table 28: Summary results, Indirect economic impacts

	Ontario	Quebec	British Columbia	Alberta	Other provinces and territories	Total Canada
GDP (CA\$, Million)	\$87.7	\$22.9	\$25.4	\$20.8	\$7.1	\$163.9
Jobs (full-time equivalents, person years)	614	160	178	146	50	1,147
Labour income (CA\$, Million)	\$55.5	\$14.5	\$16.1	\$13.2	\$4.5	\$103.7
Personal Income Tax (CA\$, Million)	\$13.4	\$3.5	\$3.9	\$3.2	\$1.1	\$25.1

Table 29: Summary results, Induced economic impacts

	Ontario	Quebec	British Columbia	Alberta	Other provinces and territories	Total Canada
GDP (CA\$, Million)	\$60.1	\$15.7	\$17.4	\$14.2	\$4.9	\$112.2
Jobs (full-time equivalents, person years)	251	65	73	60	20	469
Labour income (CA\$, Million)	\$24.5	\$6.4	\$7.1	\$5.8	\$2.0	\$45.8
Personal Income Tax (CA\$, Million)	\$5.9	\$1.5	\$1.7	\$1.4	\$0.5	\$11.1



PwC refers to the Canadian member firm, and may sometimes refer to the PwC network. Each member firm is a separate legal entity. Please see www.pwc.com/structure for further details.