



Cannabis Council of Canada

Economic Analysis of Cannabis
Excise Duties, Mark-Ups and
Regulatory Fees

Phase 1 Report

May 2022

Presented to

Cannabis Council of Canada



Context and Methodology

Context

- ▶ Cannabis Council of Canada (“C3”) engaged EY to develop a report on the **overall effects of regulation and taxation** on the cannabis industry in Canada.
- ▶ The report will analyze and **assess the impact** of taxation and compliance costs on the **legal industry’s ability to compete effectively** with **unregulated and untaxed contraband products** and thereby achieve the Cannabis Act objectives.
- ▶ The report will be used to engage in public debate over the optimal level of excise duties and related controls under the federal Excise Act, 2001 and the Cannabis Act.

Scope and Phases of Work

- ▶ The work is segmented into **two phases** as summarized below.
- ▶ This document is the **Phase 1 Report**.

Phase 1 Phase 1 of the study is **largely qualitative** and focused on **ON**. The **EY branded report** will be used for presentation and distribution purposes.

Phase 2 Phase 2 of the study is **quantitative**. It will estimate the **price elasticity of demand** for cannabis and use this to estimate **tax revenues lost to federal and provincial governments** at current excise duty rates and the likely **impact on the size of the contraband market** and the **profitability of industry licensees** at alternative rates of excise duty.

Source: xx

Phase 1 Methodology

- ▶ Collected **3-year historical** sales data from **HiFyre** (category, volumes, retail sales, retail purchase cost).
- ▶ Calculated **various Government taxes, mark-ups applied by licensed producers, OCS, and retailers and consumer pre- and post- HST prices**.
 - We used midpoint ON margins and excise duties / provincial tax calculators to calculate key figures (provided by a Licensed Producer).
- ▶ We created a **basket of legal cannabis products** – comprised of 1g flower, 1g pre-roll, 750mg vape and 10mg edible – to provide a summary of the industry in ON.

Phase 1 Limitations

- ▶ Report provides a **preliminary qualitative and quantitative view on the state of the industry** based on underlying cannabis market data provided by **HiFyre**.
- ▶ Calculations and assumptions are based on **input from Licensed Producers**, provincial distributor margins and tax calculators.
- ▶ **Deeper quantitative analysis** will be performed in Phase 2.

Key Data Sources



Table of Contents

SECTION	PAGE
>> 1 Ontario Cannabis Price Analysis and Trends	04
>> 2 Cannabis Industry Financial Health	07
>> 3 Synthesis and Industry Implications	08
>> 4 Government Policy Considerations	09
>> 5 Appendix	10
A. Ontario Cannabis Price Analysis by Category	11
B. Excise Duties, Mark-Ups and Regulatory Fees for 28g Flower Package in Ontario	20
C. Other Supporting Analysis and Materials	22

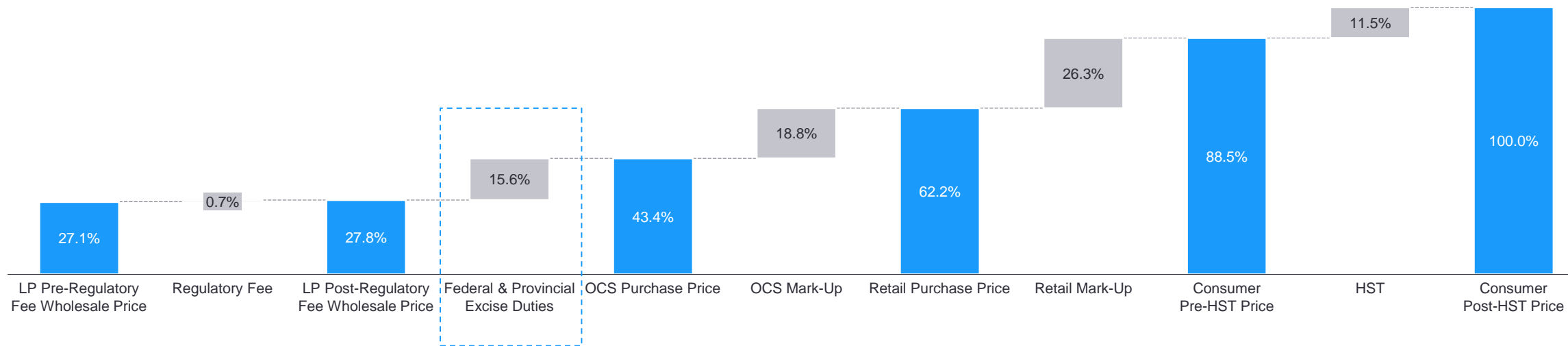


Cannabis Price Mark-Up Structure in Ontario

Government taxes represent 27.8% of the price of a basket of legal cannabis products including flower (1g), pre-roll (1g), vape (750mg) and edible (10mg); Licensed Producers only capture 27.1% of the selling price in the value chain while the illegal market would capture the full selling price

ON Legal Products Basket¹ Mark-Up Structure – Based on Aggregated Data from Jul 2021 to Apr 2022

As a % of Consumer Post-HST Price



ON Legal Products Basket¹ Price Share Breakdown



Note: ¹Basket includes flower (1g), pre-roll (1g), vape (750mg) and edible product (10mg) based on their weighted sales; ²Includes Regulatory Fee, Federal and Provincial Excise Duties and HST
Source: HiFyre

Cannabis Price Comparison in Ontario – Legal vs. Illegal Market

The price of regulated cannabis products including taxes is not competitive with untaxed contraband products; the price difference is significant for vape and edible products

ON Legal v. Illegal Product Price Comparison – Based on Aggregated Data from Jul 2021 to Apr 2022

Flower (Price Per Gram)



Pre-Roll (Price Per Gram)



Vape (Price Per 750MG)



Edible (Price Per 10MG)



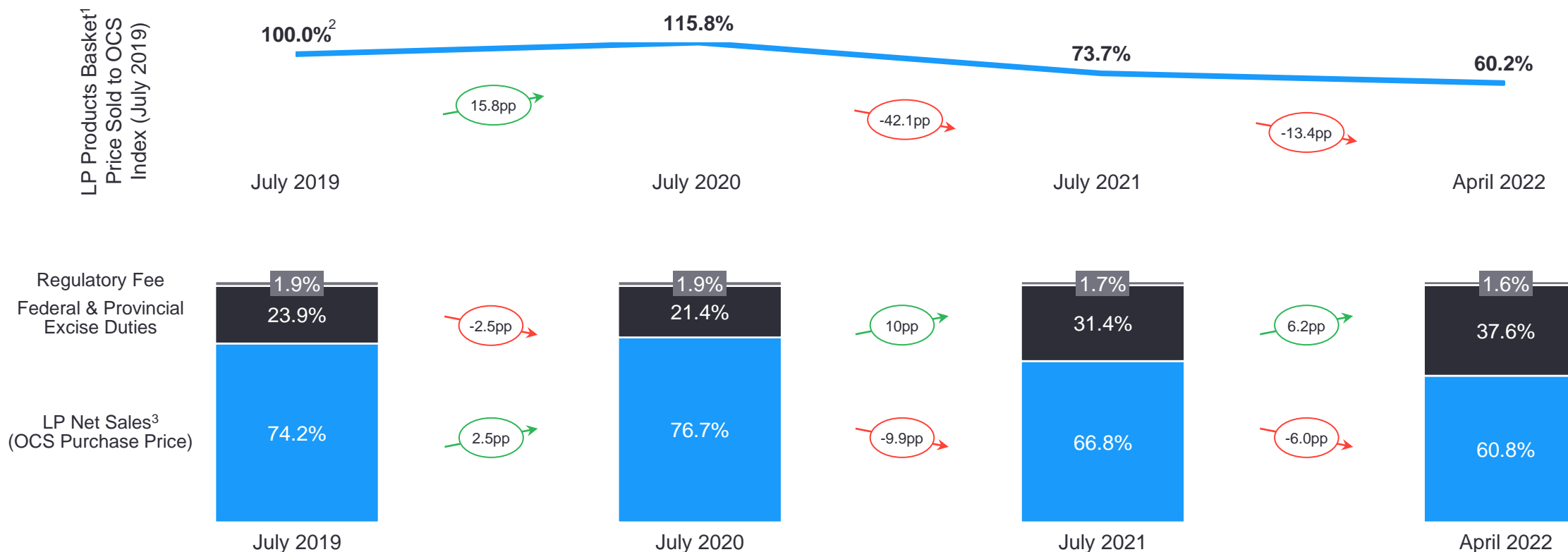
Note: ¹Average illegal market price in April 2022

Source: HiFyre; mailorder-marijuana.com; buymyweedonline.net; herbapproach.org; cheapweed.io; wccannabis.co; budlyft.com

Cannabis Price Compression and Share Breakdown in Ontario

The legal cannabis industry continues to face significant price compression; Licensed Producers' share of net sales decreased from 74.2% in July 2019 to 60.8% in April 2022 while Federal and Provincial excise duties increased from 23.9% to 37.6%

ON LP Products Basket¹ Price Trend and Share Breakdown – Jul 2019, Jul 2020, Jul 2021, Apr 2022

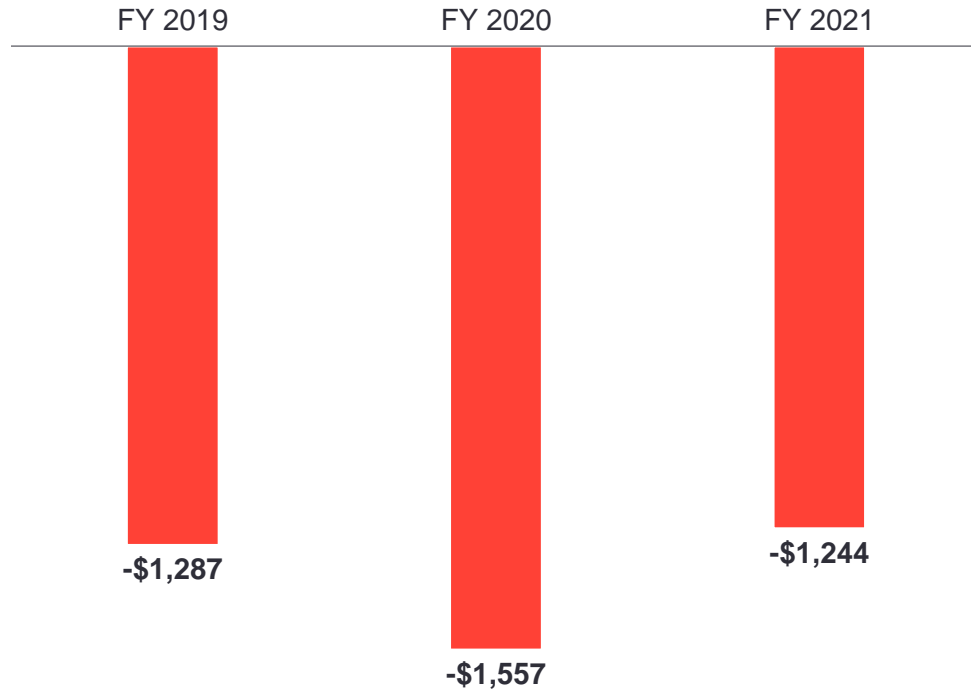


Note: ¹Basket includes flower (1g), pre-roll (1g), vape (750mg) and edible (10mg); ²No edibles were sold in July 2019; ³LP Net Sales is the price at which LPs sell to provincial distributors net of Regulatory Fees and Federal and Provincial Excise Duties
Source: HiFyre

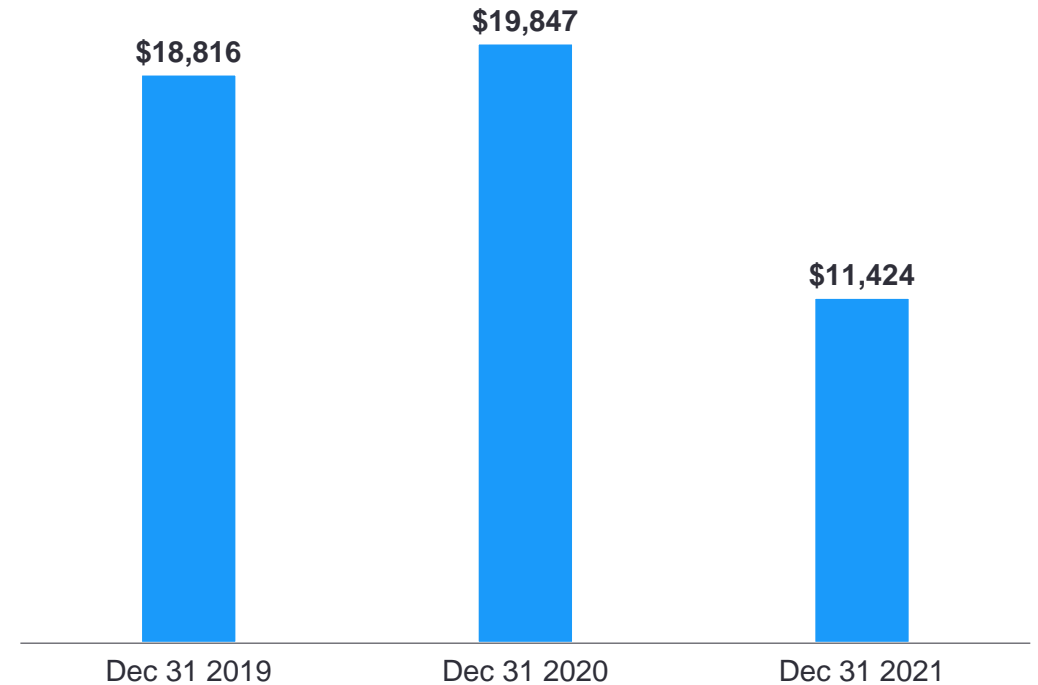
Cannabis Companies Operating Cash Flows and Market Capitalization

The sustainability of legal cannabis industry is at substantial risk; Licensed Producers remain unprofitable and on the verge of bankruptcy. Investors continue to exit the Canadian market

Top 10 Canadian Cannabis Companies Operating Cash Flows
In Millions



Top 10 Canadian Cannabis Companies Market Capitalization
In Millions



Key Takeaways and Implications

The legal cannabis industry faces serious structural issues. Government tax and regulatory burdens hinder full realization of Cannabis Act objectives and threaten the industry's survival

Cannabis Act Objectives Assessment

Despite the legal cannabis industry's best efforts, the **three primary objectives of the Cannabis Act are not fully met.**



CANADA

Cannabis Act
S.C. 2018, c. 16

- 1 Keep cannabis out of the hands of youth.
- 2 Protect public health and safety by allowing adult access to legal cannabis.
- 3 Keep profits out of the pockets of criminals.



● Goal Met
○ Goal Unmet

Key Illustrative Facts

There are **several reasons**, including but not limited to:

- ▶ **Unregulated** products remain **widely available** in the marketplace, presenting **significant health risks** to consumers due to contamination.
- ▶ **Price** of regulated products including taxes is **not competitive** with untaxed contraband products.
- ▶ **Current taxation** is **disincentivizing the shift to regulated products** and to **healthier consumption forms**.
- ▶ **Current health** of the regulated cannabis industry is not **sustainable**; companies remain **unprofitable** and on the **verge of bankruptcy**.

Key Takeaways

The legal cannabis industry has **worked hard to its enhance competitiveness**, but there are **limits** to what industry can do on its own.

Change is required to achieve the objectives of the Cannabis Act and build a vibrant and sustainable legal cannabis industry in Canada.

Federal and Provincial Governments now need to do their part to **combat illicit contraband**.

Government Policy Considerations

Federal and Provincial Governments could consider future policy changes to achieve the Cannabis Act objectives and enable the legal cannabis industry to be competitive against the illicit market and sustainable in the long-term

Future Policy Considerations¹

- 1 Reduce Federal and Provincial excise duty rates**
- 2 Harmonize federal and provincial excise duty rates** and move to a single national excise stamp eliminating provincial / territorial stamps
- 3 Reduce or eliminate cost recovery of government regulatory fees**
- 4 Reduce taxation on cannabis 2.0 products** to incentivize the shift to healthier consumption forms
- 5 Revisit / increase potency limits** on edible products, including beverages
- 6 Revise promotional prohibitions** that prevent Licence Holders from communicating with consumers about the characteristics, effects and qualities of cannabis products
- 7 Revise promotional prohibitions, packaging and labeling restrictions** that preclude the ability of Licence Holders to develop brands that connect with consumers and attract illicit cannabis consumers into the legal market
- 8 Revise packaging restrictions** that add to the cost of legal cannabis products without contributing to the Cannabis Act public health and safety objectives, e.g., childproof packaging for non-psychoactive products
- 9 Increase enforcement resources** devoted to the interdiction of illicit cannabis and enforcement of Excise Act, 2001 provisions
- 10 Launch a public awareness campaign** on the health risks and danger of purchasing **contraband cannabis products**
- 11 Launch a public awareness campaign** on the **harm reduction benefits of non-combustible** cannabis products / cannabis 2.0 products

¹Note: The policy considerations must be appropriately weighed against the public health objectives

APPENDIX

APPENDIX A

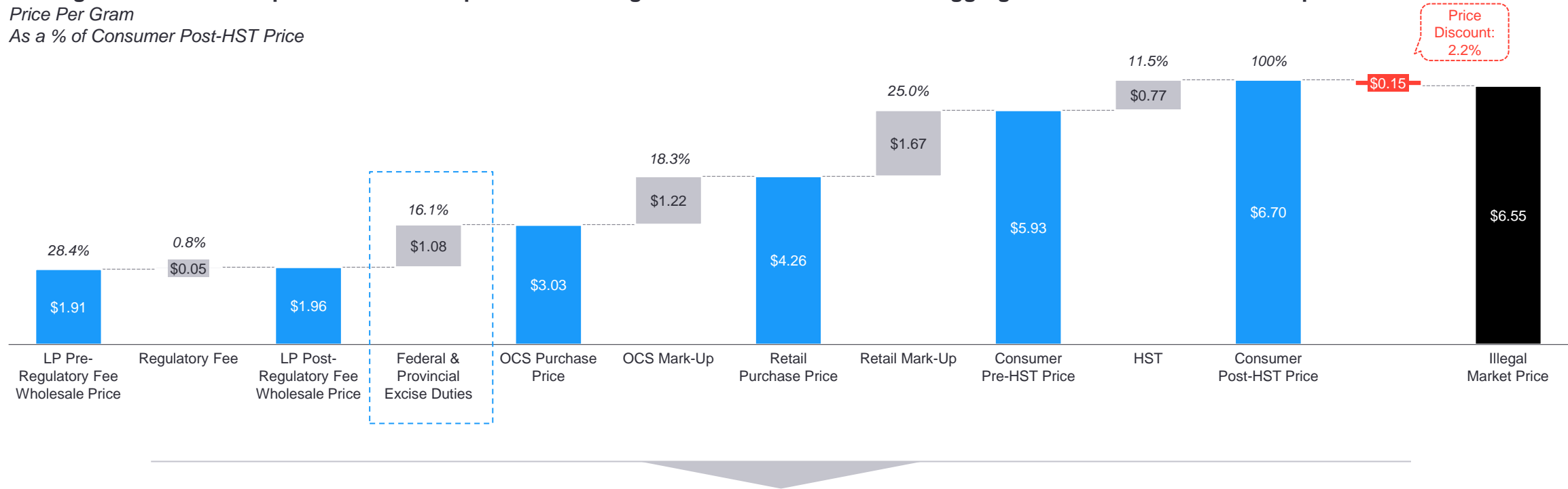
Cannabis Price Analysis by Category and Province

Flower Price Mark-Up Structure in Ontario

ON Legal Product Mark-Up Structure & Comparison with Illegal Product Price – Based on Aggregated Data from Jul 2021 to Apr 2022

Price Per Gram

As a % of Consumer Post-HST Price



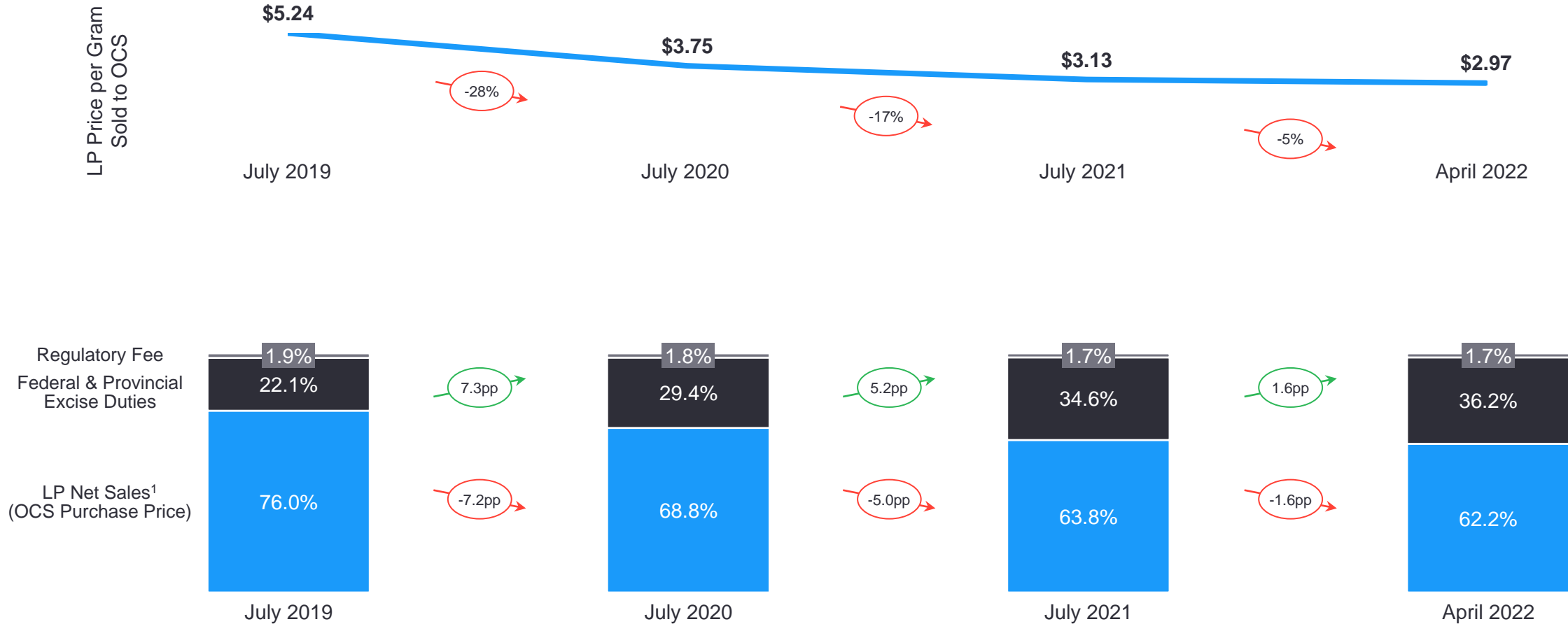
ON Legal Product Price Share Breakdown



¹Includes Regulatory Fee, Federal and Provincial Excise Duties and HST

Flower Price Compression and Share Breakdown in Ontario

ON LP Price Trend and Share Breakdown – Jul 2019, Jul 2020, Jul 2021, Apr 2022



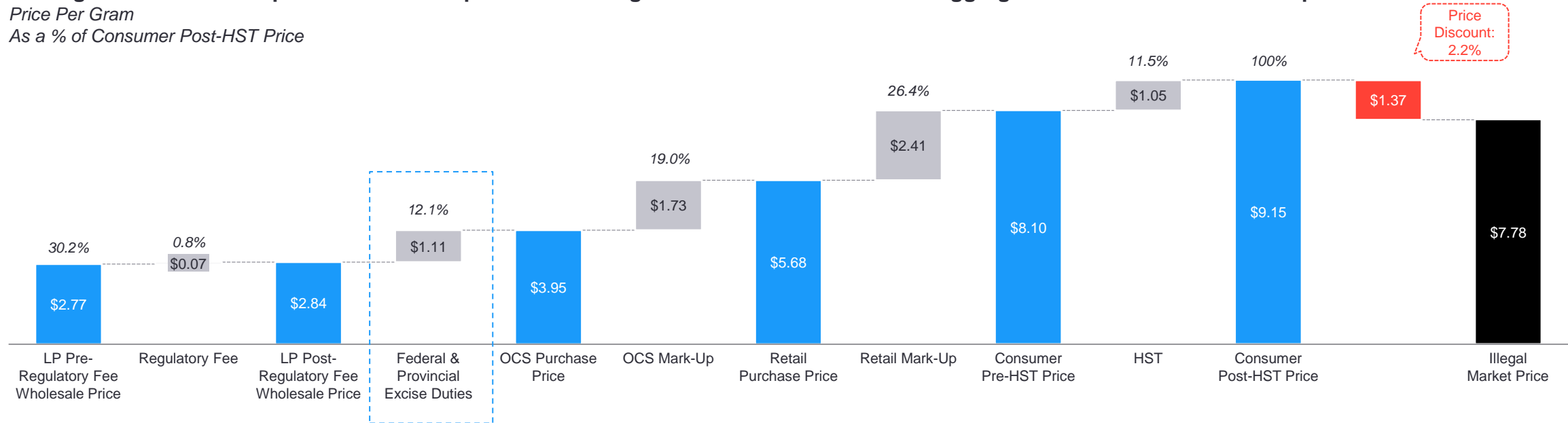
Note: ¹LP Net Sales is the price at which LPs sell to provincial distributors net of Regulatory Fees and Federal and Provincial Excise Duties
 Source: HiFyre

Pre-Roll Price Mark-Up Structure in Ontario

ON Legal Product Mark-Up Structure & Comparison with Illegal Product Price – Based on Aggregated Data from Jul 2021 to Apr 2022

Price Per Gram

As a % of Consumer Post-HST Price



ON Legal Product Price Share Breakdown

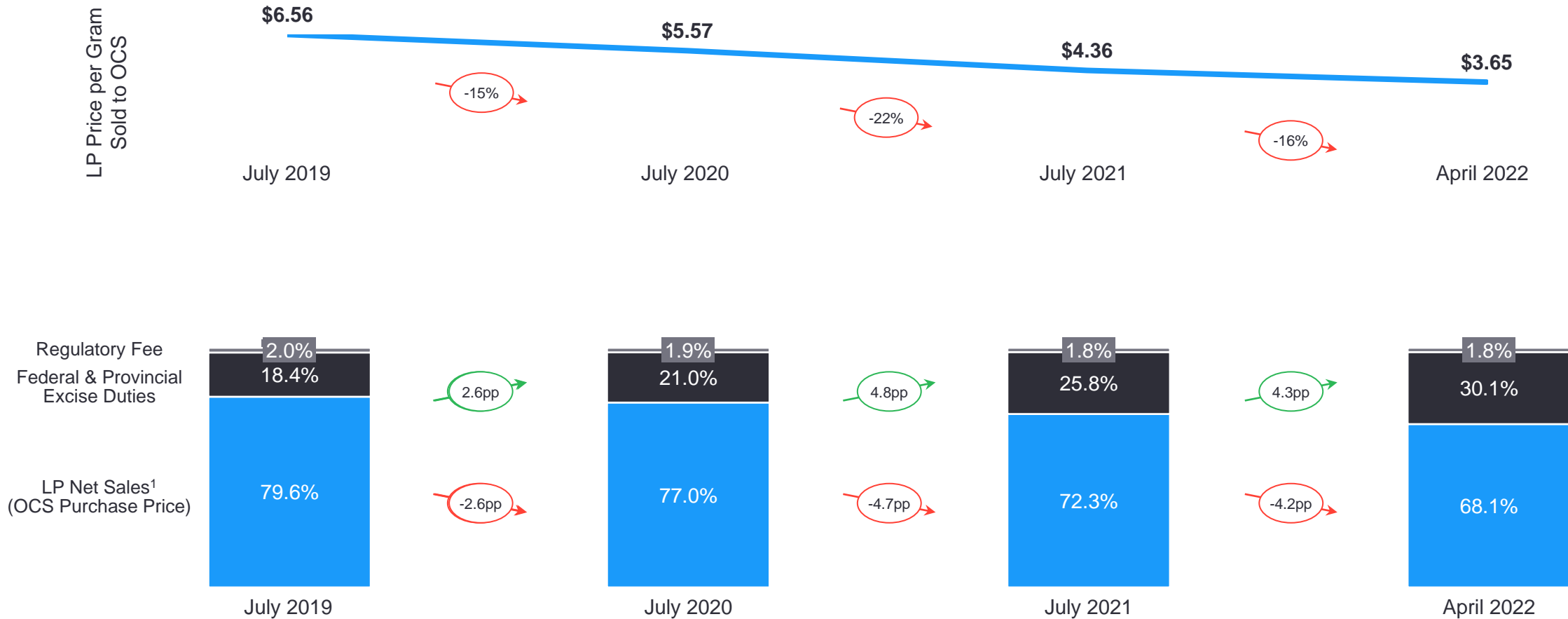


¹Includes Regulatory Fee, Federal and Provincial Excise Duties and HST

Source: Hifyre; mailorder-marijuana.com; buymyweedonline.net; herbapproach.org; cheapweed.io; wccannabis.co; budlyft.com

Pre-Roll Price Compression and Share Breakdown in Ontario

ON LP Price Trend and Share Breakdown – Jul 2019, Jul 2020, Jul 2021, Apr 2022



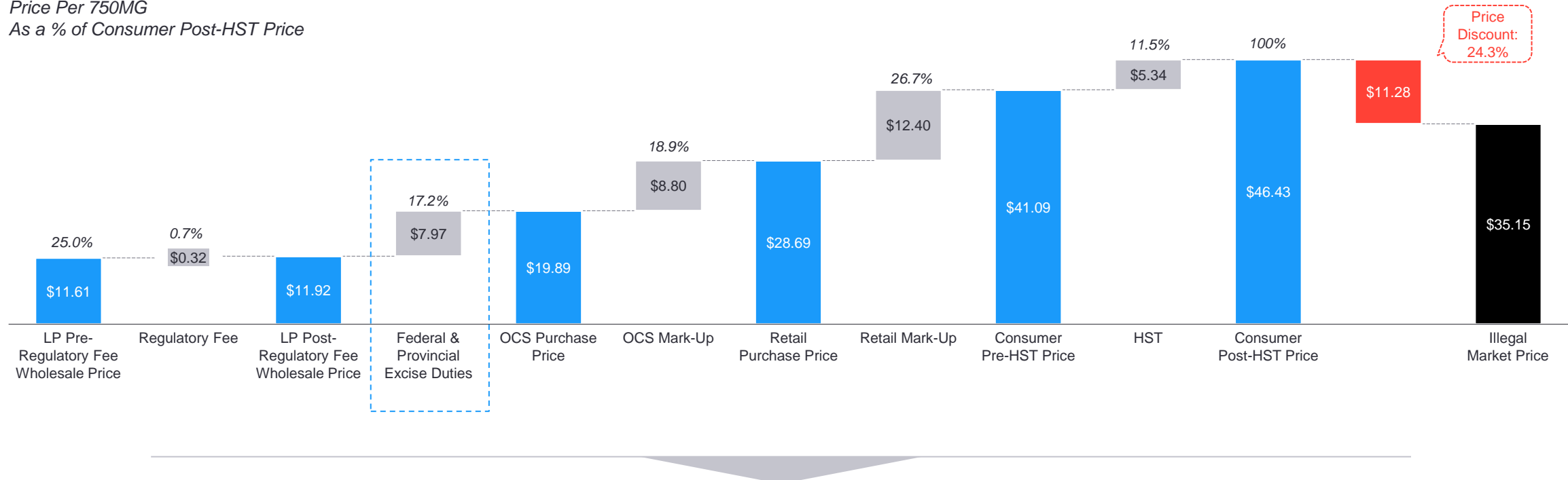
Note: ¹LP Net Sales is the price at which LPs sell to provincial distributors net of Regulatory Fees and Federal and Provincial Excise Duties
 Source: HiFyre

Vape Price Mark-Up Structure in Ontario

ON Legal Product Mark-Up Structure & Comparison with Illegal Product Price – Based on Aggregated Data from Jul 2021 to Apr 2022

Price Per 750MG

As a % of Consumer Post-HST Price



ON Legal Product Price Share Breakdown

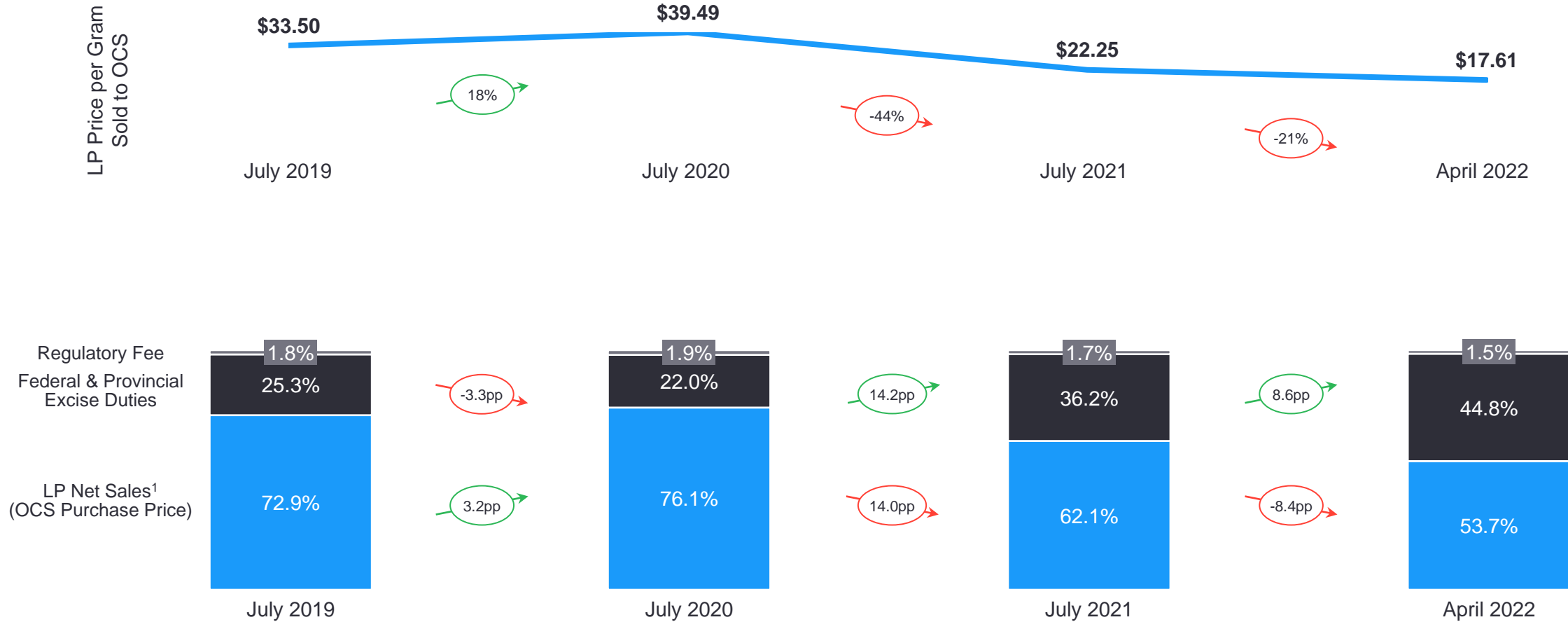


¹Includes Regulatory Fee, Federal and Provincial Excise Duties and HST

Source: Hifyre; mailorder-marijuana.com; buymyweedonline.net; herbapproach.org; cheapweed.io; wccannabis.co; budlyft.com

Vape Price Compression and Share Breakdown in Ontario

ON LP Price Trend and Share Breakdown – Jul 2019, Jul 2020, Jul 2021, Apr 2022



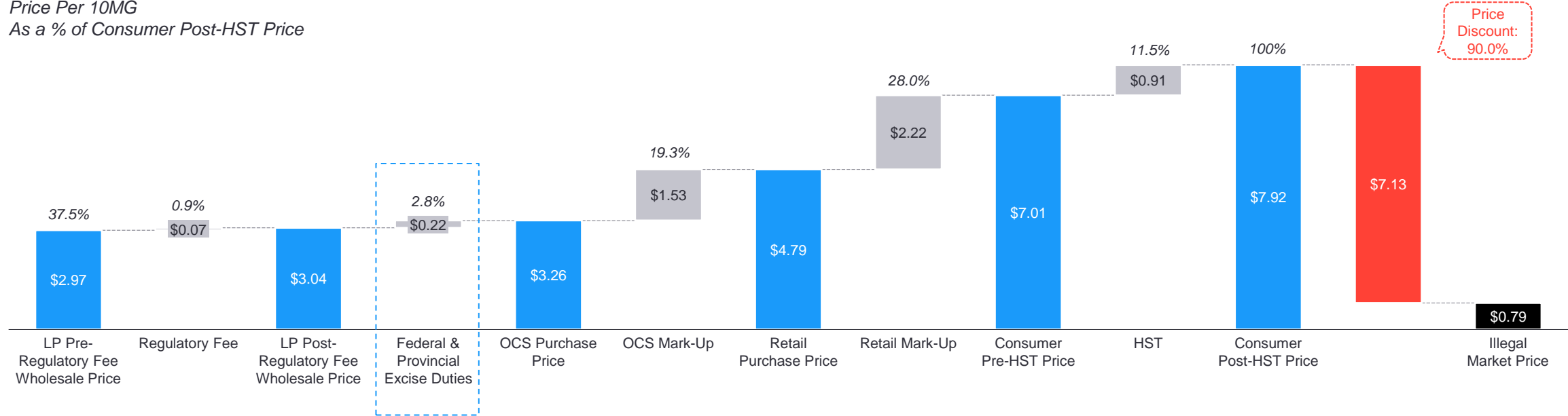
Note: ¹LP Net Sales is the price at which LPs sell to provincial distributors net of Regulatory Fees and Federal and Provincial Excise Duties
 Source: HiFyre

Edible Price Mark-Up Structure in Ontario

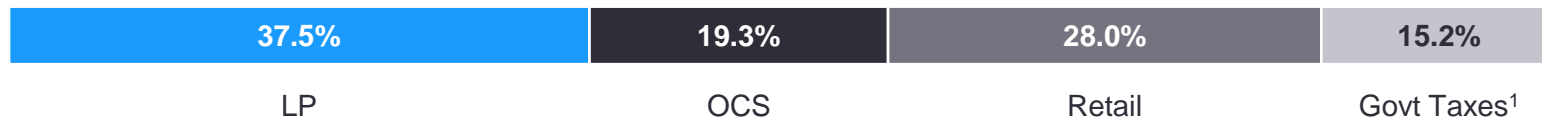
ON Legal Product Mark-Up Structure & Comparison with Illegal Product Price – Based on Aggregated Data from Jul 2021 to Apr 2022

Price Per 10MG

As a % of Consumer Post-HST Price



ON Legal Product Price Share Breakdown

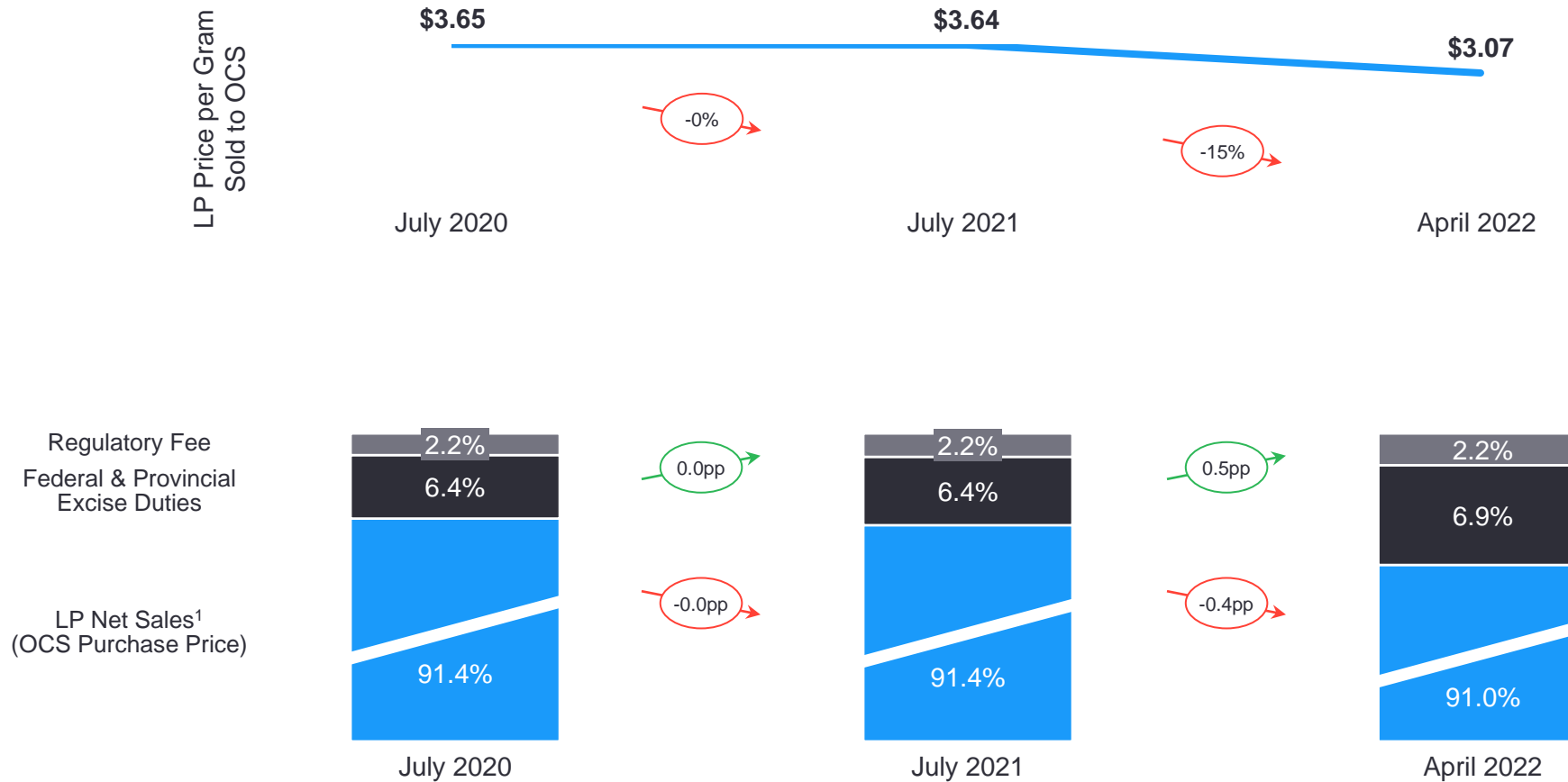


¹Includes Regulatory Fee, Federal and Provincial Excise Duties and HST

Source: Hifyre; mailorder-marijuana.com; buymyweedonline.net; herbapproach.org; cheapweed.io; wccannabis.co; budlyft.com

Edible Price Compression and Share Breakdown in Ontario

ON LP Price Trend and Share Breakdown – Jul 2020, Jul 2021, Apr 2022



Note: ¹LP Net Sales is the price at which LPs sell to provincial distributors net of Regulatory Fees and Federal and Provincial Excise Duties
 Source: HiFyre

APPENDIX B

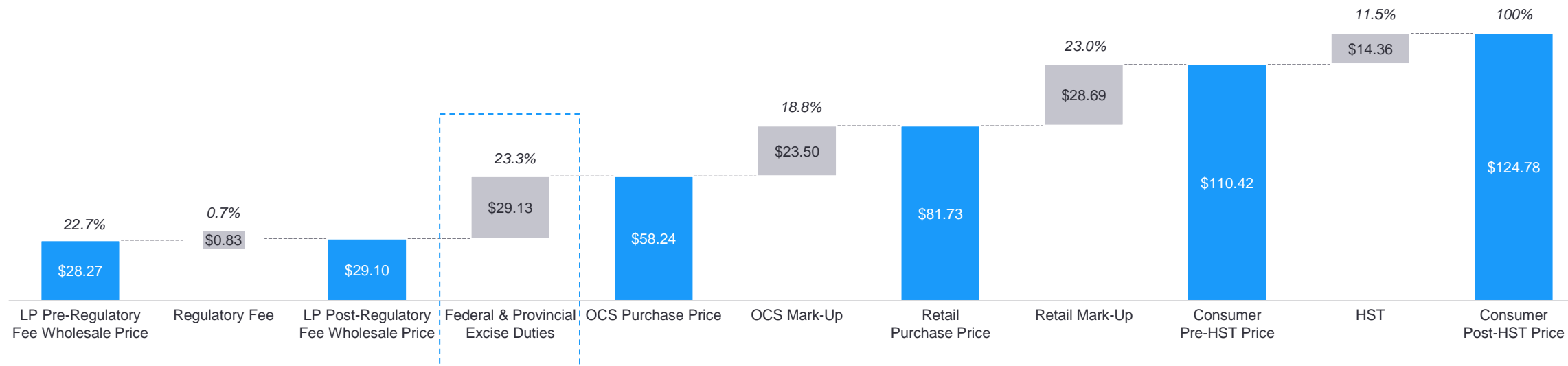
Excise Duties, Mark-Ups and
Regulatory Fees for 28g Flower
Package in Ontario

28g Flower Package Price Mark-Up Structure in Ontario

ON Legal Product Mark-Up Structure & Comparison with Illegal Product Price – Based on Aggregated Data from Jul 2021 to Apr 2022

Price Per Gram

As a % of Consumer Post-HST Price



ON Legal Product Price Share Breakdown



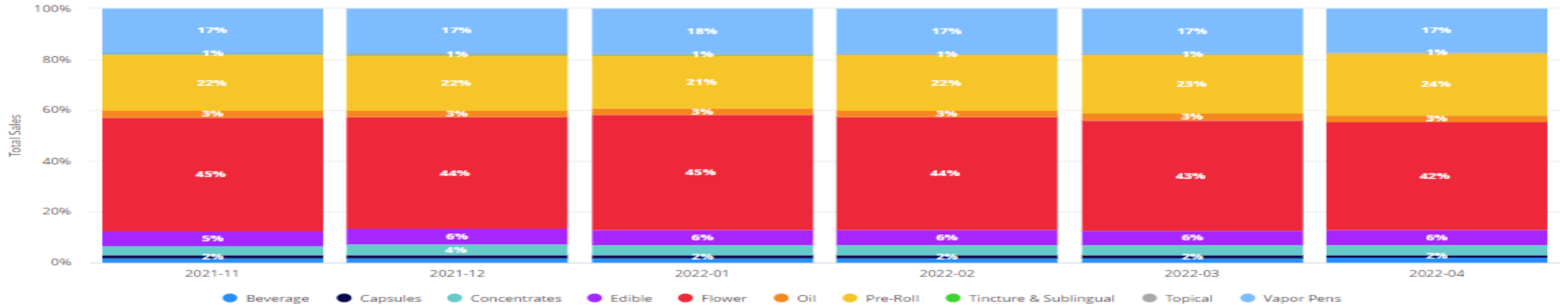
Note: ¹Includes Regulatory Fee, Federal and Provincial Excise Duties and HST

APPENDIX C

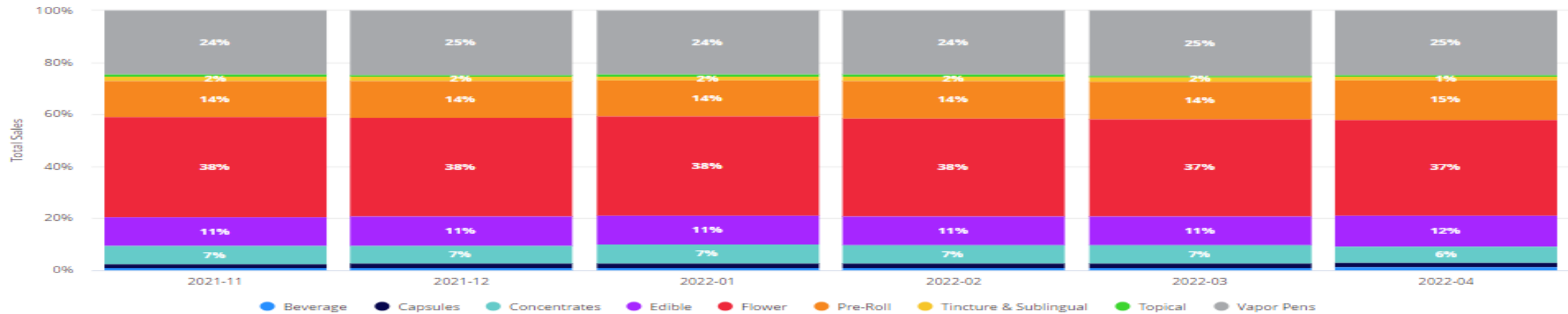
Other Supporting Analysis and
Materials

Category Mix Trend Comparison – Canada vs. Mature Cannabis States (1/2)

Canadian Category Mix Trend

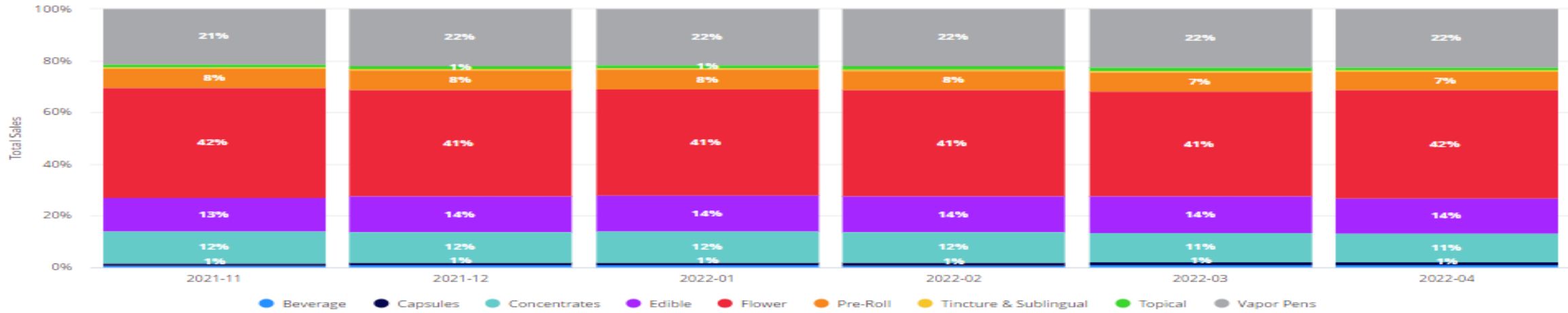


CA Category Mix Trend

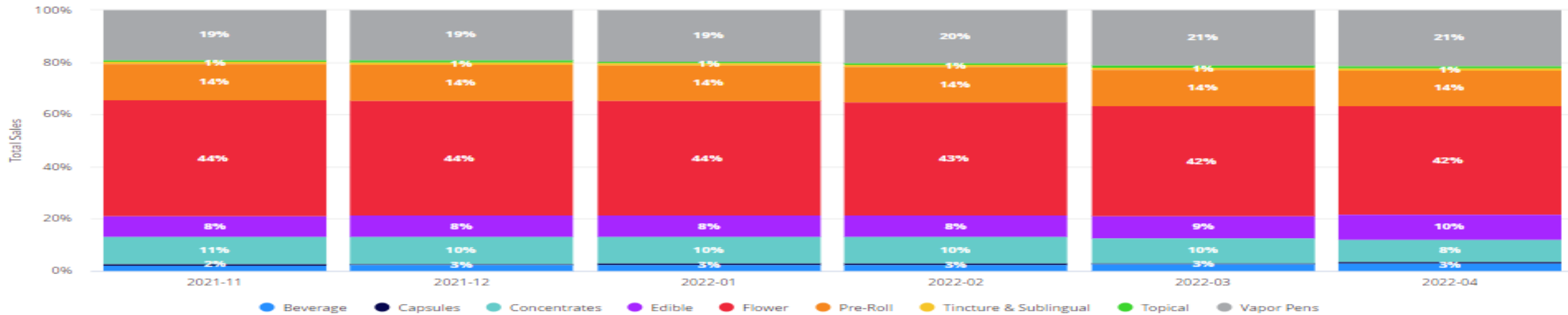


Category Mix Trend Comparison – Canada vs. Mature Cannabis States (2/2)

CO Category Mix Trend

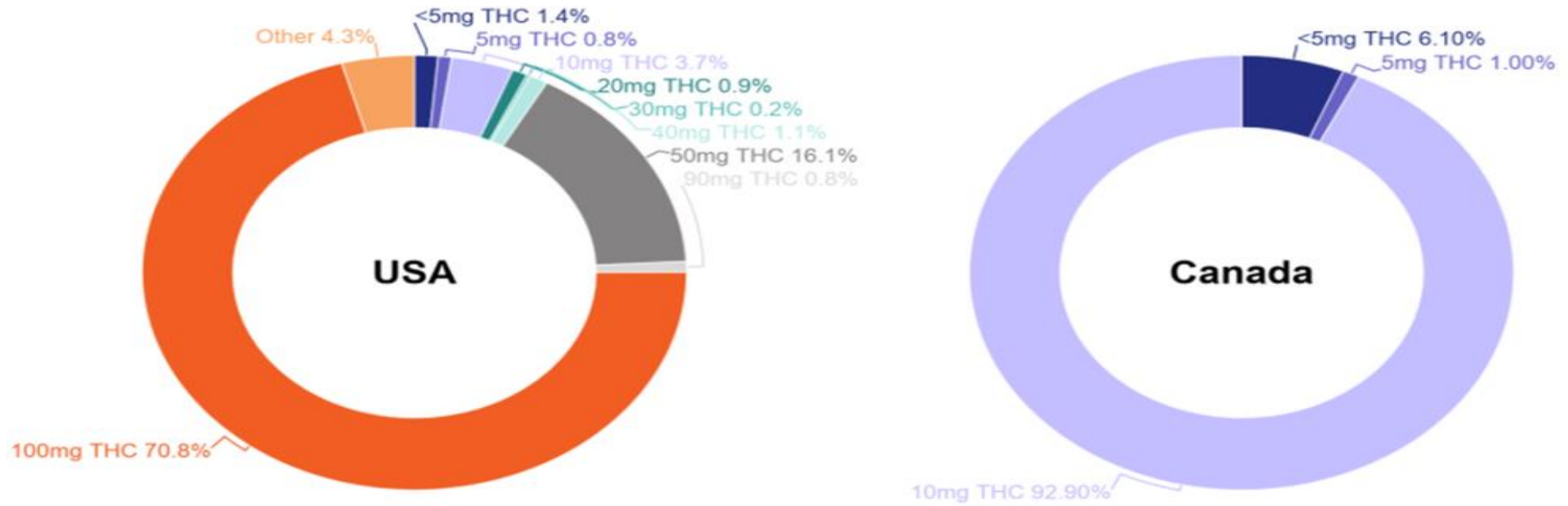


WA Category Mix Trend



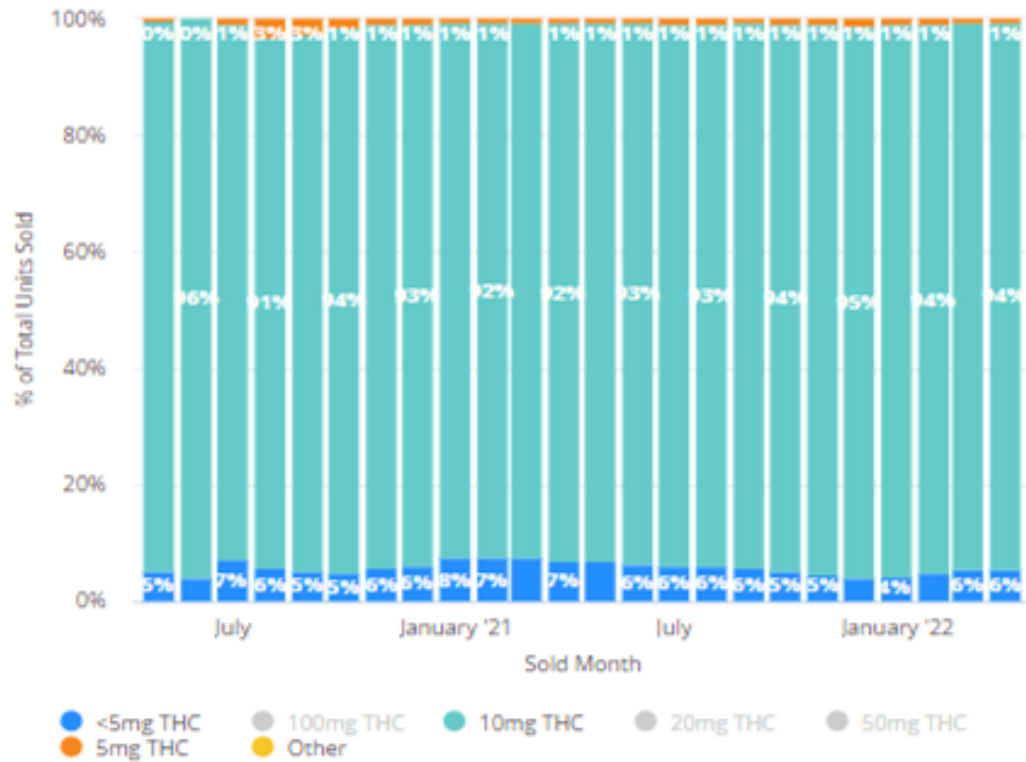
Edible Package Size Preference Comparison – Canada vs. US

Edible Unit Volume by Package Size – Canada vs. US

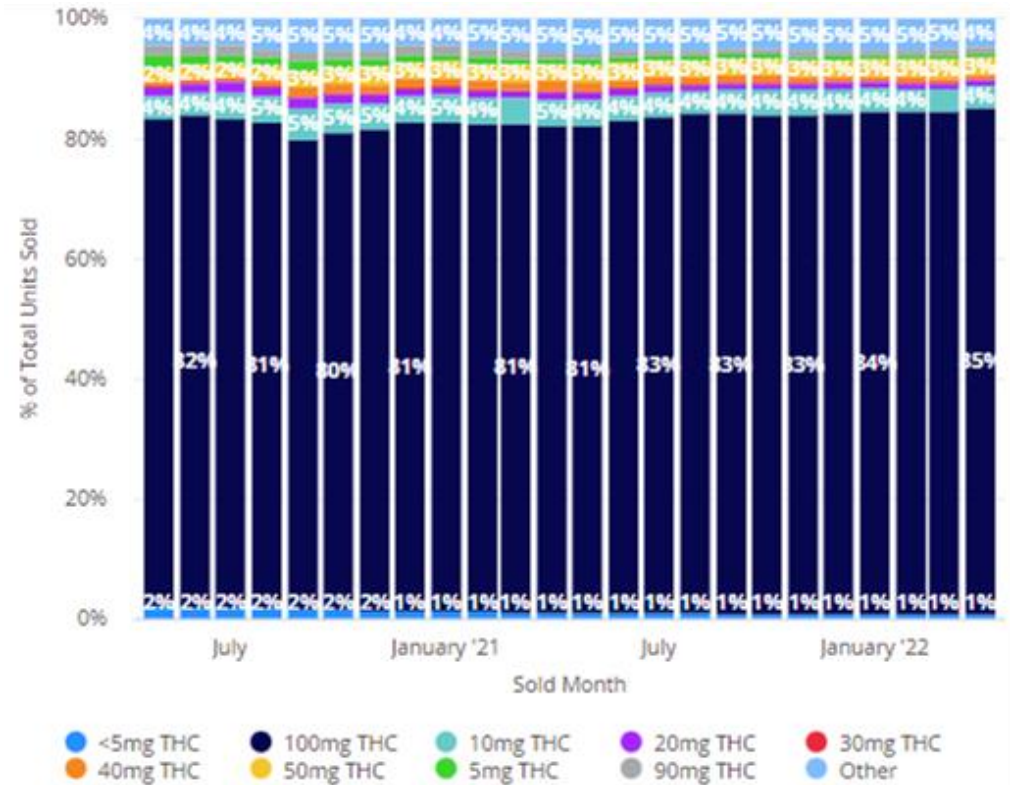


Edible Package Size Preference Trend Comparison – Canada vs. US

Edible Unit Volume Trend by Package Size – Canada

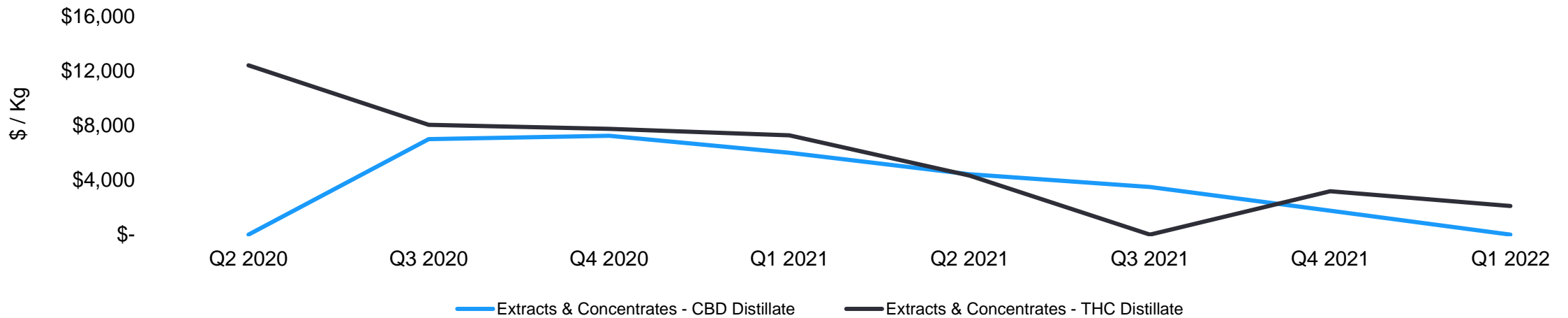
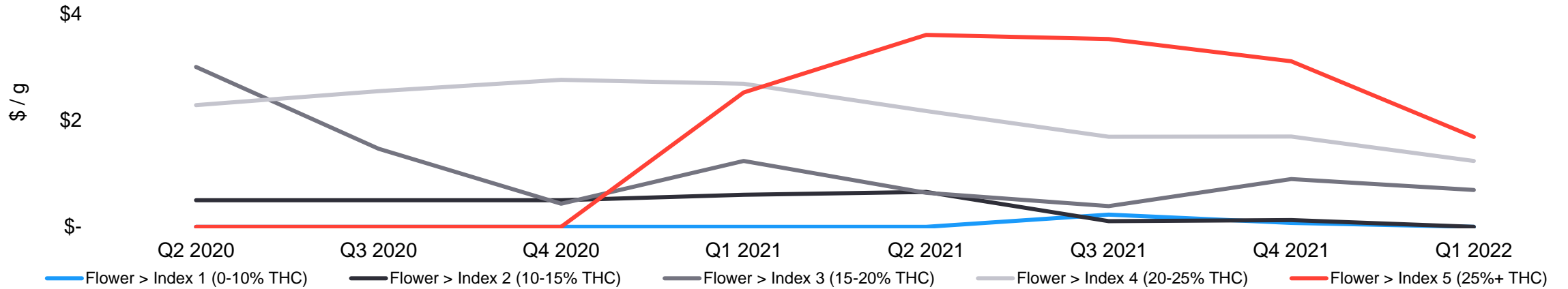


Edible Unit Volume Trend by Package Size – US (CA, CO, MI, NV, WA)



Canadian Cannabis Exchange Price Trends

CCX Historical Settled Prices by Quarter (Weighted Average)



Top 10 Canadian Cannabis Company Financials

Company Name ¹	TICKER	Operating Cash Flows (C\$000)			Market Cap (C\$M)		
		FY19	FY20	FY21	31-Dec-19	31-Dec-20	31-Dec-21
Canopy Growth Corp.	WEED	(\$535)	(\$773)	(\$466)	9,519	11,705	4,347
Cronos Group Inc.	CRON	(\$174)	(\$194)	(\$193)	3,477	3,145	1,859
Sundial Growers Inc.	SNDL	(\$113)	(\$57)	(\$155)	415	554	1,505
Aurora Cannabis Inc.	ACB	(\$192)	(\$342)	(\$211)	2,931	1,947	1,358
OrganiGram Holdings Inc.	OGI	(\$35)	(\$45)	(\$29)	498	392	690
Village Farms International, Inc.	VFF	(\$19)	\$8	(\$50)	548	1,085	905
Auxly Cannabis Group Inc.	XLY	(\$79)	(\$33)	(\$50)	345	176	156
HEXO Corp.	HEXO	(\$125)	(\$95)	(\$43)	563	570	274
The Valens Company	VLNS	(\$8)	(\$16)	(\$47)	430	213	212
Cannara Biotech Inc.	LOVE	(\$7)	(\$9)	(\$2)	88	59	118
TOTAL		(\$1,287)	(\$1,557)	(\$1,244)	\$18,816	\$19,847	\$11,424

Note: ¹Excludes Tilray based on inability to capture historical market caps
Source: S&P Capital IQ

Illegal Market Prices Scan

Flower		
Package (g)	Price	Price per Gram
1	\$9.75	\$9.75
3.5	\$29.00	\$8.29
3.5	\$30.00	\$8.57
7	\$50.00	\$7.14
14	\$100.00	\$7.14
14	\$60.00	\$4.29
14	\$40.00	\$2.86
28	\$200.00	\$7.14
28	\$150.00	\$5.36
28	\$70.00	\$2.50
28	\$50.00	\$1.79
3.5	\$35.00	\$10.00
3.5	\$25.50	\$7.29
3.5	\$37.00	\$10.57
7	\$63.00	\$9.00
7	\$68.50	\$9.79
7	\$49.50	\$7.07
14	\$113.50	\$8.11
14	\$131.50	\$9.39
14	\$99.00	\$7.07
28	\$210.00	\$7.50
28	\$194.50	\$6.95
28	\$236.50	\$8.45
3.5	\$34.99	\$10.00
3.5	\$10.50	\$3.00
3.5	\$16.99	\$4.85
7	\$32.99	\$4.71
7	\$32.99	\$4.71
7	\$69.99	\$10.00

Flower, continued		
Package (mg)	Price	Price per 750mg
14	\$62.99	\$4.50
14	\$139.99	\$10.00
14	\$62.99	\$4.50
28	\$279.99	\$10.00
28	\$79.99	\$2.86
28	\$89.00	\$3.18
28	\$49.00	\$1.75
28	\$69.00	\$2.46

Pre-Roll		
Package (g)	Price	Price per Gram
2.5	\$32.00	\$12.80
7	\$55.00	\$7.86
17.5	\$130.00	\$7.43
2.25	\$30.00	\$13.33
1	\$5.00	\$5.00
20	\$80.00	\$4.00
3	\$13.50	\$4.50
0.7	\$6.00	\$8.57
3.5	\$25.00	\$7.14
7	\$50.00	\$7.14

Vape		
Package (mg)	Price	Price per 750mg
1000	\$50.00	\$37.50
1000	\$65.00	\$48.75
1000	\$40.00	\$30.00
1000	\$55.00	\$41.25
1000	\$34.99	\$26.24
1000	\$42.00	\$31.50
500	\$27.99	\$41.99
1000	\$31.99	\$23.99

Edibles		
Package (mg)	Price	Price per 10mg
80	\$12.00	\$1.50
200	\$19.50	\$0.98
400	\$30.00	\$0.75
375	\$22.00	\$0.59
80	\$14.00	\$1.75
2000	\$65.00	\$0.33
250	\$18.00	\$0.72
450	\$28.00	\$0.62
200	\$16.00	\$0.80
800	\$38.00	\$0.48
600	\$40.00	\$0.67
100	\$8.00	\$0.80
200	\$9.00	\$0.45
200	\$11.00	\$0.55
500	\$32.00	\$0.64
150	\$15.00	\$1.00
125	\$13.00	\$1.04
960	\$70.00	\$0.73
500	\$35.00	\$0.70
200	\$15.00	\$0.75

EY | Building a better working world

EY exists to build a better working world, helping create long-term value for clients, people and society and build trust in the capital markets.

Enabled by data and technology, diverse EY teams in over 150 countries provide trust through assurance and help clients grow, transform and operate.

Working across assurance, consulting, law, strategy, tax and transactions, EY teams ask better questions to find new answers for the complex issues facing our world today.

EY refers to the global organization, and may refer to one or more, of the member firms of Ernst & Young Global Limited, each of which is a separate legal entity. Ernst & Young Global Limited, a UK company limited by guarantee, does not provide services to clients. Information about how EY collects and uses personal data and a description of the rights individuals have under data protection legislation are available via ey.com/privacy. EY member firms do not practice law where prohibited by local laws. For more information about our organization, please visit ey.com.

About EY-Parthenon

EY-Parthenon teams work with clients to navigate complexity by helping them to reimagine their eco-systems, reshape their portfolios and reinvent themselves for a better future. With global connectivity and scale, EY-Parthenon teams focus on Strategy Realized — helping CEOs design and deliver strategies to better manage challenges while maximizing opportunities as they look to transform their businesses. From idea to implementation, EY-Parthenon teams help organizations to build a better working world by fostering long-term value. EY-Parthenon is a brand under which a number of EY member firms across the globe provide strategy consulting services. For more information, please visit ey.com/parthenon.

Ernst & Young LLP is a client-serving member firm of Ernst & Young Global Limited operating in the US.

© 2020 Ernst & Young LLP. All Rights Reserved.

2011-3622504
ED None

This material has been prepared for general informational purposes only and is not intended to be relied upon as accounting, tax, legal or other professional advice. Please refer to your advisors for specific advice.

ey.com

