German Imports in 1Q25

Cannabis Sector Equity Research



Pablo Zuanic ZUANIC & ASSOCIATES pablo.zuanic@zuanicgroup.com 4200dysseus; www.zuanicassociates.com



German Medical Cannabis (MMJ) Imports Up

German MMJ imports (data out 5/26) reached record levels in 1Q25, up 4.6x yoy to 37.2ton (all MMJ formats). We estimate Canadian exports have about a ~60% share of the German MMJ market if we count transshipments through Portugal. Not all LPs have reported March qtr results yet, but several have shown gains in international (Curaleaf also). Export growth also supports pricing in Canada, which bodes well for LP economics. Per our estimates, only about 0.4% of the German population is involved with medical cannabis, which should bode well for growth (several US MMJ states are in the 3-4% range). All this said, the slowdown in qoq growth can raise questions about the market's actual growth potential (up "only" mid-teens after +53% in 4Q24). Also, regulatory risks should not be minimized with the new CDU-led government. Federal Health Minister Nina Warken (interview link) called the growth in the use of medicinal cannabis "disturbing" and wants to restrict what she calls "too easy access". With the new government set to review the CanG rules by the fall, the industry has plenty of time to lobby, but restrictions on telehealth (see impact on the Polish market) are likely, in our view.

Import Growth Continues to Ramp, But Slowed QoQ

German imports reached 37.2 tons in 1Q25, as per BfArM, up 4.6 vs. 1Q24 levels, and +15% qoq (the 4Q24 number was revised up to 32.1ton from 31.7ton), after +53% goq in 4Q.

- Imports were mostly steady through 1Q24, averaging 7.8ton per qtr in 1H23, 8.4ton per qtr in 2H23 and 8.1ton in 1Q24. But with the new MMJ rules implemented on 4/1/24, we saw a jump to 11.6 in 2Q24, 20.7 in 3Q24, 31.7 ton in 4Q24, and now 37.2ton in 1Q25.
- The German authorities no longer disclose German pharmacies' purchases (3Q23 was the
 last time this was disclosed). But for Jan-Sep 2023, purchases averaged 4.8ton per qtr, or
 about 60% of imports. That figure was consistent with the metrics seen from 2017 thru
 2022 (55-60% range). The 40% gap was historically explained by rejections (some imports
 not meeting German specs) and reexports.
- If we use the historical 60% ratio, then 1Q25 pharmacy purchases were 22.3ton in 1Q25, or about 4.6x the level of purchases seen in quarters prior to 4/1/24. If were to cut the "rejection + reexport" ratio to 25% from 40%, then German MMJ consumption could have been near 28 tons.
- If we take an average price at retail of €8 per gram, the German MMJ market would now
 be at a run rate of €714Mn (annualizing the 22.3ton purchased by pharmacies, as per the
 above estimate), or <€900Mn taking the 28ton estimate.
- If we assume a "standard" US\$200 monthly spend per patient (based on US MMJ state data), that would equate (taking an FX rate of 1.14) to about 340,000 patients, or 0.4% of the population (84.5mn pop). Or 420,000 (0.5%) if we take the close to €900Mn market size estimate.



Canadian Exports Lead, but "Seem" to Have Lost Share

As per BfArM, Canada accounted for 16.1ton of the 32.7ton imported by Germany in 1Q25, or 43% of total imports (in line with 4Q24, but below the 59% of 1Q24). Portugal was #2 with 32% German import share in 1Q25 (29% in 4Q24 and 21% in 1Q24), followed by Denmark with 7% (10%; 6%). Several other countries accounted for the remaining 18%: North Macedonia 3.7% (3.5% in 4Q24); Spain 2.3% (1.9%); Netherlands 2.3% (2.7%); Australia 2.2% (1.9%); Malta 1.7% (0.3%); Czech Republic 1.6% (1.4%); South Africa 1.4% (1.8%); plus four other countries each accounting for less than 0.5%.

- In absolute terms, if we compare the delta between 1Q25 and 1Q24 of (37.2ton 8.1ton), Canada accounted for 39% of the absolute growth and Portugal for 35%. Several other countries accounted for the balance, including Denmark 7%, North Macedonia 4%, and Australia and Spain each 3%.
- But we think Portugal's "share gain" is distorted, in part by reshipments (the actual MMJ market in Portugal is tiny). Yes, there are various growers in Portugal (likely expanding), including Tilray and Curaleaf (via its EMMAC facility). But several Canadian producers (especially the smaller ones) ship to Portugal for EU GMP processing, and from there the "finished" product is shipped to Germany (and other markets).
- So, if we assume the bulk of the growth in Portugal's exports is "Canadian", then it may be the case that Canadian growers have actually gained share in Germany. That said, it remains unclear whether all this is a function of Canada having a better product vis a vis pricing, or about other countries having been slowed to ramp up production (red tape, funding, other). It is telling that supposedly "low-cost" countries like Colombia, Lesotho, and South Africa, accounted for only 2.5% of the absolute import growth between 1Q25 and 1Q24.

Implications for Key Players

Strong growth in the German market bodes well for several listed cannabis companies with sales in that market (we do not have precise market share data by brand or company); this includes Canadian LPs plus Curaleaf's international affiliates.

Export growth also has a positive ripple effect for the Canadian market. B2B prices in Canada have been moving up due to increased demand from Germany. In our recent trip to Australia, several importers there noted that higher prices in Canada (due to Germany), in the context of weaker domestic retail prices in Australia, were making them seek sources from other markets (as well as from Australia itself).

But are all LP's keeping up, in the context of apparent >4x demand growth in the German market? As most LPs do not split international revenues by country, it is hard to give a firm answer to this point. Also, supply chain varies (some may import from more than one country, not just Canada,



and some may also outsource – see note below). Also, some like Aurora and Tilray are expanding production in Germany itself (precise numbers are not available).

We realize exports can be choppy given delays with export permits and other reg issues, so, the following analysis should be seen in that context. Regarding March quarter (or Feb qtr) results reported so far (ACB and CGC have not reported Mar qtr results).

- Tilray reported total international MMJ sales of US\$13.9Mn (C\$19.8Mn) for the Feb'25 qtr compared with US\$14.0Mn for Feb'24. Based on company disclosure, we calculate EMEA MMJ sales (US\$10.9Mn) were 78% of the total, and they were up 5% yoy (-6% qoq). MMJ sales to ROW were down 16% yoy (-6% qoq).
- Village Farms reported MMJ exports of US\$ 5.4Mn (C\$7.7Mn) for the Mar qtr, up 3.8x yoy and 3.1x qoq. VFF management has guided for MMJ exports to grow at least 3x in CY25.
- OGI reported MMJ exports of C\$6.1Mn for the Mar'25 gtr, up ~80% gog and yoy.
- Avant Brands reported MMJ exports of C\$4.7Mn for the Feb'25 qtr, up 41% yoy, but down 36% from C\$7.3Mn exported in the Nov qtr.
- Decibel (including the recent AgMedica deal) reported C\$2.2Mn in international sales for the Mar'25 qtr (vs. C\$3.4Mn in 4Q24).
- Companies like Auxly, Cannara, and Rubicon, for the time being are not exporting, and are more focused on the Canadian rec market (where all three are gaining share).
- ACB and CGC have not reported Mar'25 qtr results yet.
 - Aurora reported shipments to Europe of C\$26.3Mn (>US\$18Mn) for the Dec qtr compared with C\$20Mn in the Sep qtr (and C\$10-11Mn in the Mar and June qtr). We do not have a country split, but ACB's ~2.6x growth (Dec vs. Mar) would not be far off our estimate of 3-4x domestic demand growth in Germany during that period.
 - Canopy Growth reported international cannabis sales for the Dec'24 qtr of C\$12.0Mn and \$10.1Mn both for Jun/Sep'24 and \$11.6Mn in Mar'24. CGC said a drop in Australia masked growth in Europe of ~65% yoy in the Dec qtr (ex, Poland, we estimate Germany may have been up about 50% for Canopy Growth).
- US MSO Curaleaf owns an effective 37.7% equity stake in Four20 Pharma (Curaleaf owns 68.5% of Curaleaf International [CI], which in turn owns 55% of Four20), a leading German MMJ importer. CI also owns EMMAC (an operator in Portugal and the UK). CI has built an international supply chain (Northern Green in Canada; EMMAC in Portugal; outsourcing). It is also selling in Poland and Australia. For 1Q25, Curaleaf reported international wholesale revenues of US\$22.5Mn (+93% yoy, and +27% qoq). The UK unit reported retail sales of US\$11Mn (+47% yoy, -6% qoq).



There are several large private players in Germany, most of them importing (Demecan is
the only one with domestic production among them), including Canify, Cansativa,
CannaMedical, Cantourage, Remexian, Sanity Group, and Vertanical (Four 20 Pharma is
now owned by Curaleaf), to name a few. Cantourage is the only public listed company in
this group.

Note: Regarding sourcing,

- We understand companies like Tilray and Curaleaf (EMMAC) source a good part of their German imports from Portugal (besides imports from Canada), but we understand, on average, Canadian quality is better. There are also several private operators in Portugal.
- Aurora now ships all its exports to Europe from Canada (no longer from Denmark); but it may also be outsourcing.
- Canopy Growth outsources part of its exports to Germany (including from countries like Denmark).
- Aurora and Tilray are also expanding production in Germany itself (precise numbers are not available).

Crossing the BfArM Data with StatCan

If the StatCan data is a better leading indicator of Germany's import growth, then 2Q25 should see continued growth.

- Per StatCan, Canadian dried flower exports in total reached C\$119.8Mn in 1Q25, up 2.8x yoy, and up 33% qoq. Revenue per gram actually moved up to C\$2.56/gram in 1Q25, up 5% yoy and +7% qoq.
- Regarding country of destination, 42% of DF C\$ exports went to Germany (up 6x), 25% to
 Australia C\$ exports were up 20% yoy), and 18% to Portugal (likely all reexported after EU
 GMP processing and certification).
- In terms of the absolute yoy C\$ growth, exports to Germany accounted for 57% of the absolute C\$ growth and to Portugal for 27% (Australia only 6%).
- Per StatCan, DF export volumes to Germany reached 13.2ton in 1Q25, and were up 30% gog from 10.2 tons in 4Q24.
- As mentioned before, per BfArM, total volume imports (not just DF) in Germany were up mid-teens qoq, with Canada up 17% (16.1ton vs. 13.7ton). The latter numbers also include extracts and other non-flower MMJ products, so this is why absolute volume figures do not tally 100%.



- Big picture, we see the StatCan numbers as the leading indicator (+30% growth qoq vs. 17% per BfArM), with dried flower likely continuing to gain format share, which should imply continued qoq growth.
- Note: Per StatCan, non-flower MMJ exports amounted to C\$7.2Mn in 1Q25 (these tend to be more erratic; up 61% qoq, and down 31% yoy), compared with C\$120Mn dried flower exports.

Market Outlook

With still low population penetration, MMJ should have significant upside in Germany.

- We realize that despite the change in the narcotics law on 4/1/24, the German med
 market is more of a pharmaceutical nature compared with the MMJ markets of the
 various US states (where population penetration can be as high as 4%). In Germany, actual
 Dr prescriptions are required (with exact amounts, brands, and strains, all indicated; with
 limited leeway for pharmacies to make changes).
- Still, even if we take the Canada medical model, with <1% population penetration, that
 would imply >2x upside. But we think the Canadian market is not the right comp. The
 Canadian medical market "suffers" from the ease of access of the competing rec market
 (plenty of supplies, stores, and low prices), which is not the case in Germany. Also, in
 Germany telehealth is more prevalent than in Canada and in the US markets.
- So, net, we realize it is early days, but we believe market growth will accelerate as various issues along the supply chain improve. What specifically? More consistent and ample supplies across price and quality spectrums; new formats being allowed; more drs being willing to prescribe to cash payers (yes, online clinics are growing, offering telehealth, and one can get an Rx prescription for "the cost of a coffee", but it is still early days, in our view); improvements in how brick and mortar pharmacies (which are general pharmacies) process prescriptions; fixing glitches with payment systems for online pharmacies.
- On the flipside regulatory risk are an issue given the new CDU-led government. Federal
 Health Minister Nina Warken (<u>interview link</u>) called the growth in the use of medicinal
 cannabis "disturbing" and wants to restrict what she calls "too easy access". With the new
 government set to review the CanG rules by the fall, the industry has plenty of time to
 lobby, but restrictions on telehealth (see impact on the Polish market) are likely, in our
 view.

For greater context, see these other Z&A reports

- Canify AG.
- C\$ exports in 4Q24.



Table 1: Stocks mentioned in this report

Company name	Ticker	Ticker	Rating
US MSOs			
4Front Ventures		FFNTF	not rated
Ascend Wellness		AAWH	not rated
AYR Wellness		AYRWF	not rated
Cannabist		CCHWF	not rated
Cansortium		CNTMF	not rated
Cresco Labs		CRLBF	Overweight
Curaleaf Holdings		CURLF	will cover
GlassHouse Brands	5	GLASF	not rated
Green Thumb Indus	stries	GTBIF	Overweight
Grown Rogue		GRUSF	not rated
Jushi Holdings		JUSHF	Overweight
Ma ri Me d		MRMD	Overweight
Planet 13 Holdings		PLNHF	Overweight
Schwazze		SHWZ	not rated
TerrAscend		TSNDF	not rated
TILT Holdings		TLLTF	Neutral
Trulieve Cannabis		TCNNF	will cover
Verano Holdings		VRNOF	Overweight
Vext Science, Inc.		VEXTF	Overweight
Vireo Growth		VREOF	will cover
Finance (MJ) Compar	nies		
AFC Gamma		AFCG	Overweight
Chicago Atlantic BD	С	LIEN	Overweight
Chicago Atlantic RE	AF	REFI	Overweight
Innovative Industri	al Properti	iesIIPR	not rated
New Lake Capital P	artners	NLCP	Overweight
SHF Holdings		SHFS	not rated

	et de co	Dating
Company name	Ticker	Rating
Canada LPs		
Aurora Cannabis	ACB	Neutral
Auxly Cannabis Group	CBWTF	not rated
Avant Brands	AVTBF	not rated
Avicanna	AVCN	not rated
Ayurcann Holdings	AYURF	not rated
Cannara Biotech	LOVFF	not rated
Canopy Growth Corporation	CGC	Neutral
Cronos Group	CRON	not rated
Decibel Cannabis Co	DBCCF	Overweight
Organigram Holdings	OGI	not rated
Rubicon Organics	ROMJF	will cover
SNDL	SNDL	not rated
Tilray Brands	TLRY	Neutral
Village Farms Intl	VFF	Overweight
Other		
Canify AG	TBD	private
Cantourage AG	HIGH:FF	not rated
Flora Growth	FLGC	not rated
Grow Generation	GRWG	not rated
IM Cannabis	IMCC	not rated
Intercure	INCR	Overweight
Ispire Technology	ISPR	will cover
Leafly	LFLY	not rated
LFTD Partners Inc.	LIFD	Overweight
Smoore International	SMORF	will cover
Urban-gro	UGRO	not rated
WM Technology	MAPS	Neutral

Source: Z&A ratings



Appendix I: Valuation Comps



Exhibit 1: Canada LPs - Valuation Multiples (consolidated multiples)

								<u>Financial</u>	Net Debt				1
Multiples	Z&A 9	Spot EV / S	<u>Sales</u>	<u> Z&A S</u>	pot EV / E	BITDA	to Sa	ales	to EB	<u>ITDA</u>	<u>Sto</u>	ck Perform	ance_
26-May-25	Current	2025	2026	Current	2025	2026	Current	CY25	Current	CY25	30-day	90-day	1-year
Aurora Cannabis	1.3x	1.3x	1.2x	7.6x	7.2x	6.3x	na	na	na	na	25%	-7%	-15%
Auxly Cannabis Group	1.5x	na	na	6.6x	na	na	-0.4x	na	-2.0x	na	-13%	-35%	-62%
Avant Brands	0.6x	na	na	3.6x	na	na	-0.1x	na	-0.8x	na	7%	35%	71%
Cannara Biotech	1.4x	na	na	5.4x	na	na	-0.4x	na	-1.5x	na	-10%	-5%	50%
Canopy Growth	2.4x	2.3x	2.2x	-20.1x	466.6x	113.6x	-0.8x	-0.7x	6.4x	-147.9x	48%	12%	-80%
Cronos Group	-2.2x	-2.1x	-1.9x	-31.0x	-120.7x	na	na	na	na	na	13%	3%	-23%
Decibel Cannabis	0.8x	0.6x	0.5x	5.2x	3.3x	2.5x	-0.4x	-0.3x	-2.4x	-1.5x	3%	-3%	-33%
Organigram Holdings	0.9x	1.0x	0.9x	25.8x	12.7x	7.8x	na	S	na	na	27%	5%	-24%
Rubicon Organics	0.5x	na	na	3.5x	na	na	0.0x	na	0.0x	na	-14%	0%	-3%
SNDL	0.3x	0.3x	0.3x	33.2x	16.7x	na	na	na	na	na	-9%	-27%	-41%
Tilray Brands	0.7x	0.6x	0.6x	14.6x	7.2x	5.9x	0.0x	0.0x	-0.8x	-0.4x	0%	-54%	-76%
Village Farms Internatio	0.6x	0.6x	0.6x	529.0x	10.6x	5.0x	-0.1x	-0.1x	-61.5x	-1.2x	102%	58%	8%

¹⁾ We take FactSet consensus estimates for CY25e and CY26e, if available; 2) By "current", we mean the latest reported qtr annualized; 3) several LPs have net cash Source: FactSet and company reports



Exhibit 2: Canada LPs - EV Calculations

<i>C\$Mn</i> 26-May-25	FactSet Spot EV	Z&A Spot EV	C\$ price	mn shares	mn deriv	Total Mkt Cap	Financial net debt	Net leases	ST income tax liab.	Conting Cons.	ITM deriv	Total BDND	Pref Stock Min Int
Aurora Cannabis	374	466	7.57	54.9	1.2	424	51	-43	3	-10		-2	39
Auxly Cannabis Group	227	196	0.09	1,285.7	133.4	121	-59	-14	1	-2		-75	
Avant Brands	234	25	0.87	10.6	0.2	9	-6	-10)			-16	
Cannara Biotech	85	152	1.20	90.0	0.0	108	-43	C	-1			-44	
Canopy Growth	na	644	2.52	173.4	1.4	440	-204					-204	
Cronos Group	-86	-408	2.79	277.9	0.0	776	1,186	-2	2			1,184	
Decibel Cannabis	65	72	0.07	576.9	7.7	39	-33	C)			-33	
High Tide	na	250	3.14	80.7	0.7	255	8	-2	2			6	
Organigram Holdings	205	240	1.88	133.8	19.3	288	83		0			83	35
Rubicon Organics	30	30	0.40	67.0	6.7	29	0)			0	
SNDL	225	284	1.77	263.0	12.4	489	242	-37	7			205	
Tilray Brands	667	727	0.61	1,006.2	26.1	628	-39	-71		-21		-131	-33
Village Farms Internatio	211	236	1.71	112.3	0.7	193	-27	-2	<u>)</u>			-29	14

Source: FactSet and company reports



Exhibit 3: US MSOs - Valuation Multiples (consolidated multiples)

								NET DEE	T RATIOS		BROADE	R DEFINI	TION OF NE	T DEBT
US\$Mn	Z&A	Spot EV / S	<u>Sales</u>	<u> Z&A S</u>	pot EV / E	<u>BITDA</u>	Net Deb	t/Sales	Net Debt	/EBITDA	BDND	/Sales	BDND/	EBITDA
26-May-25	Current	CY25e	CY26e	Current	CY25e	CY26e	Current	CY25	Current	CY25	Current	CY25	Current	CY25
US MSOs	1.4x	1.1x	0.9x	6.7x	6.2x	4.3x								
Ascend Wellness	1.1x	1.1x	1.0x	5.4x	5.1x	4.6x	-0.5x	-0.5x	-2.2x	-2.1x	-1.0x	-1.0x	-4.7x	-4.5x
Ayr Wellness	2.3x	1.2x	1.2x	8.3x	6.0x	5.6x	-1.6x	-0.9x	-6.0x	-4.3x	-2.2x	-1.2x	-7.9x	-5.7x
Cannabist Co	1.2x	1.2x	1.2x	12.3x	11.3x	8.3x	-0.8x	-0.8x	-8.1x	-7.4x	-1.1x	-1.1x	-11.5x	-10.5x
Cansortium	1.1x	na	na	3.7x	na	na	-0.6x	na	-2.0x	na	-0.9x	na	-3.2x	na
Cresco Labs	1.4x	1.3x	1.3x	6.7x	5.6x	5.1x	-0.5x	-0.5x	-2.5x	-2.1x	-1.0x	-0.9x	-4.5x	-3.7x
Curaleaf	1.6x	1.5x	1.4x	7.5x	6.9x	6.0x	-0.5x	-0.5x	-2.6x	-2.4x	-0.9x	-0.9x	-4.5x	-4.2x
4Front Ventures	1.9x	na	na	12.3x	na	na	-1.1x	na	-7.1x	na	-1.9x	na	-12.3x	na
Glass House	3.1x	3.0x	2.4x	18.7x	15.6x	10.0x	-0.1x	-0.1x	-0.6x	-0.5x	-0.3x	-0.3x	-1.8x	-1.5x
Vireo Growth (pf)	1.2x	1.1x	0.8x	4.2x	4.4x	2.8x	0.0x	na	-0.1x	na	-0.2x	na	-0.7x	na
Green Thumb	1.3x	1.2x	1.2x	4.2x	4.1x	3.8x	0.0x	0.0x	-0.1x	-0.1x	-0.1x	-0.1x	-0.3x	-0.3x
Grown Rogue	1.7x	na	na	2.5x	na	na	0.2x	na	0.3x	na	0.0x	na	0.1x	na
iAnthus	1.1x	na	na	6.6x	na	na	-0.9x	na	-5.1x	na	-0.9x	na	-5.4x	na
Jushi	1.5x	1.5x	1.3x	7.5x	8.4x	6.9x	-0.7x	-0.6x	-3.3x	-3.7x	-1.3x	-1.2x	-6.3x	-7.1x
Ma ri Me d	0.9x	0.8x	0.8x	13.3x	6.8x	4.5x	-0.4x	-0.4x	-6.5x	-3.3x	-0.6x	-0.6x	-9.0x	-4.6x
Planet 13	0.9x	0.8x	0.8x	na	29.2x	7.7x	0.1x	0.1x	na	2.6x	-0.2x	-0.2x	na	-6.4x
TerrAscend	1.6x	1.5x	1.4x	7.4x	7.1x	6.2x	-0.6x	-0.6x	-2.8x	-2.7x	-1.1x	-1.1x	-5.1x	-4.9x
TILT	1.4x	na	na	-32.1x	na	na	-0.8x	na	18.7x	na	-1.4x	na	31.6x	na
Trulieve	1.4x	1.4x	1.3x	3.8x	4.0x	4.1x	-0.2x	-0.2x	-0.7x	-0.7x	-0.7x	-0.7x	-1.9x	-2.0x
Verano	1.1x	1.1x	1.0x	4.2x	3.8x	3.5x	-0.4x	-0.4x	-1.5x	-1.4x	-0.8x	-0.8x	-3.1x	-2.8x
Vext	1.1x	0.9x	0.7x	3.7x	3.2x	1.3x	-0.6x	-0.5x	-2.2x	-1.8x	-0.6x	-0.5x	-2.2x	-1.8x

¹⁾ Current is based on the latest reported qtr annualized (Sales and EBITDA); 2) We take FactSet consensus estimates for CY25e and CY26e multiples, if available.

Source: FactSet and company reports



Exhibit 4: US MSOs - EV Calculations

US\$Mn	FactSet	Z&A	US\$	mn	mn	Total	Financial	Net	Income	Conting	ITM deriv	Total	Pref Stock
26-May-25	Spot EV	Spot EV	price	shares	deriv	Mkt Cap	net debt	leases	tax liab.	Cons.	inflow	BDND	Min Int
US MSOs		opor _ r	p	0.110.1100									
Ascend Wellness	554	580	0.30	214.5	13.3	68	-241	-134	-137			-512	,
Ayr Wellness	612	550	0.23	116.2	3.4	28	-394	-5	-123	0	0	-522	
Cannabist Co	471	407	0.06	472.7	8.2	27	-269	-26	-86			-380	
Cansortium	140	113	0.05	304.9	5.6	16	-59	-9	-29			-97	
Cresco Labs	718	899	0.66	441.2	8.9	298	-332	-56	-202	-10		-600	
Curaleaf	1,518	1,958	0.86	750.1	11.0	652	-670	-46	-416	-41		-1,173	132
4Front Ventures	223	140	0.00	915.2	3.8	1	-81	-11	-42	-5	0	-139	
Glass House	440	670	5.83	82.1	6.9	518	-21	0	-23	-20		-65	86
Vireo Growth (pf)	120	403	0.36	924.9	12.7	337	-8		-60		2	-66	
Green Thumb	1,501	1,423	5.41	235.9	7.7	1,318	-42	-31	-33	0	0	-105	
Grown Rogue	75	52	0.37	143.5		54	5	-2	-2			1	
iAnthus	37	201	0.01	6,745.7	0.3	37	-157	-7				-164	
Jushi	313	390	0.31	196.7	0.0	61	-171	-3	-155			-329	
Ma ri Me d	128	137	0.07	389.2	11.1	30	-67	-1	-25			-93	15
Planet 13	109	99	0.24	325.4	0.3	77	9	-10	-21			-22	
Schwazze	174	188	0.02	80.2		2	-151	-2	-33	0		-186	
TerrAscend	335	454	0.40	356.7	3.1	144	-172	-5	-128	-4		-310	
TILT	127	125	0.01	391.3	0.7	2	-73	-47	-3			-123	
Trulieve	1,227	1,653	4.19	191.1	7.6	832	-289	-25	-501	-6		-820	
Verano	683	917	0.69	359.7	6.3	252	-336	-8	-319	-1		-664	
Vext	49	50	0.08	247.6	0.2	21	-29	0				-29	

Source: FactSet and company reports



Exhibit 5: Stock Performance

26-Ma y-25	Sto	ck Performa	nce
	Last	Last	Last
Ticker	30d	90d	12mo
US MSOs			
Ascend	-21%	-22%	-72%
Ayr	34%	-43%	-90%
Cannabist	46%	8%	-77%
Cansortium	4%	-13%	-68%
Cresco	1%	-26%	-65%
Curaleaf	-5%	-39%	-82%
4Front	-65%	-95%	-99%
GlassHouse	16%	-10%	-32%
Gold Flora	#N/A	28%	-81%
Grown Rogue	-5%	-39%	-53%
Green Thumb	2%	-24%	-52%
iAnthus	-7%	-21%	-71%
Jushi	7%	-12%	-49%
Ma ri Me d	-22%	-45%	-67%
Planet13	0%	-32%	-58%
Schwazze	na	na	-96%
StateHouse	na	na	0%
Trulieve	8%	-5%	-60%
TerrAscend	52%	-25%	-74%
Verano	8%	-34%	-84%
Vext	-16%	-20%	-54%
Vireo Growth	-1%	-23%	-42%
International			
InterCure	6%	-34%	-51%
Pharma Cielo Pharma Cielo	-17%	8%	124%

	<u>Sto</u>	ck Performa	ince
	Last	Last	Last
Ticker	30d	90d	12mo
Canadian LPs			
Aurora	25%	-7%	-15%
Avant	-13%	-35%	-62%
Auxly	7%	35%	71%
Ayurcann	1%	-15%	-47%
Cannara	-10%	-5%	50%
Canopy	48%	12%	-80%
Cronos	13%	3%	-23%
Decibel	3%	-3%	-33%
Entourage	#N/A	#N/A	#N/A
High Tide	-3%	-12%	-1%
OGI	27%	5%	-24%
Rubicon	-14%	0%	-3%
SNDL	-9%	-27%	-41%
Tilray	0%	-54%	-76%
VFF	102%	58%	8%
Tech			
LFLY	25%	-9%	-88%
SBIG	34%	14%	-50%
MAPS	-6%	-27%	15%
Vape parts			
GNLN	-98%	-99%	-100%
ISPR	-10%	-36%	-64%
SMORF	0%	2%	32%
TLLTF	-16%	-47%	-83%

	Stock Performance						
	Last	Last	Last				
Ticker	30d	90d	12mo				
MJ Fincos							
AFCG	-9%	-40%	-61%				
IIPR	7%	-24%	-49%				
NLCP	4%	-3%	-25%				
SHFS	-29%	-68%	-84%				
LIEN	-2%	-17%	-10%				
REFI	2%	-7%	-6%				
Pix & Shovel							
AGFY	51%	7%	421%				
GRWG	18%	-19%	-56%				
HYFM	39%	-45%	-60%				
SMG	11%	-2%	-9%				
UGRO	-24%	-52%	-77%				
CBD							
CVSI	-15%	-34%	-51%				
CWEB	6%	-4%	-45%				
LFID	-10%	25%	-53%				
Index							
S&P 500	8%	-3%	10%				
S&P 477	0%	-1%	10%				
Nasdaq	11%	1%	33%				
MSOS ETF	6%	-24%	-69%				
YOLO ETF	12%	-10%	-47%				
Simple Group Aver	ages						
Large Canada LF	34%	-2%	-42%				
Tier 1 MSOs	3%	-25%	-69%				

Source: FactSet



Appendix II: Bio and Disclaimers



Analyst Bio

Pablo Zuanic is a well-known and highly rated equity analyst following the broader cannabinoids (THC cannabis, hemp derivatives, CBD) and consumer sectors. Over the past six years he has launched coverage of over 40 companies in the US, Canada, and overseas; plant-touching as well as service providers (tech; finance); and has also worked with several private companies. He follows closely the reform process in the US, Canada, Germany, Australia, and elsewhere, and relies on a fundamental and data-driven approach to keep track of sectoral trends. His firm Zuanic & Associates publishes equity research, both from a macro/sectoral level in a thematic manner, as well as on listed stocks. The research service is aimed at institutional investors, corporations, and regulators. The firm is also available for short-term consulting and research advisory projects. Approaching the third year since its inception, the firm has collaborated with over 25 companies (in North America and overseas; plant touching and service providers; public and private), both on an on-going basis as well for specific projects. At various points in his career, Pablo Zuanic was ranked in the Institutional Investor magazine surveys and was called as expert witness in industry investigations. He has a deep global background having covered stocks over the past 20 years in the US, Europe, Latin America, and Asia, across consumer sub sectors. Prior employers include JP Morgan, Barings, and Cantor Fitzgerald. An MBA graduate of Harvard Business School, he started his career as a management consultant, which brings a strategic mindset to his approach to equity research. He can be contacted via the company's portal www.zuanicassociates.com; via email at pablo.zuanic@zuanicgroup.com; or via X @4200dysseus.



Disclosures and Disclaimers

About the firm: Zuanic & Associates is a domestic limited liability company (LLC) registered in the state of New Jersey. The company's registered address is Five Greentree Centre, 525 Route 73, N Suite 104, Marlton, New Jersey 08053, USA. Pablo Zuanic is the registered agent. The firm publishes equity research on selected stocks in the cannabis and psychedelics sector, as well as thematic macro industry notes. The firm also provides consulting and advisory services. Potential conflicts of interest are duly reflected in the respective specific company reports.

Analyst Certification: The publishing analyst, whose name appears on the front page of this report, certifies that the views expressed in this research report accurately reflects his personal views about the subject securities or issuers discussed in this report. His opinions and estimates are based on his best judgement at the time of publication and are subject to change without notice. As per the company's policy, the author of this report does not own shares in any company he covers.

Other: This report is for use by professional and or institutional investors only, and it is deemed impersonal investment advice, published on a bona fide and regular basis. This report is for informational purposes only and is based on publicly available data believed to be reliable, but no representation is made whether such data is accurate or complete. As such, this report should not be regarded by its recipients as a substitute for obtaining independent investment advice and/or exercise of their own judgement. When making an investment decision this information should be viewed as just one factor in the investment decision process. Neither the publishing analyst, nor any of the company's officers and directors, accept any liability for any loss or damage arising out of the use of all or any part of the analyst's research.

Risks: The financial instruments mentioned in this report may not be suitable for all investors and investors must make their own investment decisions based on their specific investment objectives. Past performance should not be taken as an indication or guarantee of future performance. The price, value of and income from, any of the financial instruments featured in this report can rise as well as fall and be affected by changes in political, financial, and economic factors. If a financial instrument is denominated in a currency other than the investor's currency, a change in exchange rates may adversely affect the price or value of, or income derived from, the financial instrument, and such investors effectively assume currency risk.

Disclosure: Zuanic & Associates offers advisory and research services, and it also organizes investor events and conferences. The firm is often engaged by various operators in the cannabis industry (both plant touching companies and those providing services, private and public, in North America and overseas) on an ongoing or ad hoc basis. Several of the companies discussed in this report are paying customers of the services provided by the firm.

Copyright: No part of this publication may be reproduced, distributed, or transmitted in any form or by any means, including photocopying, recording, or other electronic or mechanical methods, without the prior written permission of the author.