

9/13/2023

MD Brand Share Trends

Cannabis Sector Equity Research



Key Highlights:

- MD market on \$1.1Bn run rate
- Retail flower prices +64% since March
- Better margins for retailers and growers
- Key MSOs doing well in retail and wholesale

Pablo Zuanic

ZUANIC & ASSOCIATES

pablo.zuanic@zuanicgroup.com

420Odysseus; www.zuanicassociates.com



Dear reader: On Tue 7/18, we launched our cannabis equity research service (see [Sector Launch report](#)). We will publish thematic/macro reports during the first few weeks, and then follow with equity stock coverage. A full list of our recent reports is shown at the end of this report.

Maryland Retail and Wholesale Update

MD is a good example of a medical cannabis state going recreational in a smooth manner (see [report](#) for background), with incumbent med players benefitting from 2x sales and price reflation. We estimate the top stores are doing \$25-30Mn in sales (for a state average of \$10Mn/store). While economics have improved both for grower and retailers, we note retail are up more than costs. Importantly, MSO med incumbents have not been hand-cuffed from entering the market (see NY), and there is a reasonable balance between MSOs and private operators (we would say more so than in, say, New Jersey).

- As per the official data, Aug sales (rec+med) reached \$91.7Mn in MD compared with \$87.4Mn in Jul (first month of rec) and \$42.7Mn in June (only med sales). As per the same official source, “buds” accounted for 60% of sales, concentrate (inc vapes) for 27%, and infused edibles for 7%.
- Headset (based on scanner data from dispensaries) broke down August sales by format as follows: flower 51%, vape 24%, edibles 12%, pre-rolls 9%, and concentrates 3%. The mix vs. the last month of med went up for flower by 4pt (from 47%), by 2pt for pre rolls (from 7%), and by 1pt for vape (all as per Headset).

The regulator has issued 101 dispensary licenses so far, and another 75 will be issued. Of the 20 publicly traded MSOS that we track (note: we have not launched stock coverage yet on them), Ascend, Curaleaf, Green Thumb, TerrAscend, and Verano, each have the maximum of four stores. Columbia Care has 3, iAnthus 3, Trulieve 3, Goodness Growth 2, and MariMed 1. MSOs with no retail in MD: Acreage, AYR, Cresco (it wholesales), 4Front, Jushi, Planet 13, Schwazze, StateHouse, Tilt, and Vext. Private MSOs like Holistic and PharmaCann also operate in the state. The regulator has opened a new application period (11/13 to 12/12) for a total of 179 licenses, including 75 dispensary licenses (distributed by county) and 8 micro dispensary licenses.

Flower prices and segment share trends

Retail flower prices up 64% since March. On a per gram basis, prices in August averaged \$9.62 compared with \$6.92 in June and \$5.85 in March, for a 64% increase over the Mar-Aug period. Also, during that period pack size mix has come down (avg 5.1 gram per unit in March vs. 4.3g now); the latter is the opposite of what we see in deflationary markets (certainly not the case for MD at present). Interestingly, costs have lagged retail price hikes. As per Headset cost, per gram (the price paid by retailers to vendors) was \$5.05/g in Aug vs. \$3.29 in Mar; so, while retail prices increased by \$3.77/g, costs only went up by \$1.76 (i.e., spreads went from \$2.56 to \$4.57). We will



not delve into whether this means retailer economics are better than grower economics in MD, but, certainly, the improvement has been greater for retailers since rec began.

Store brands. Store brands had 25.8% flower share in Aug vs. 22.2% in March (store brands may include vertically integrated operators selling their own brands at their own stores, as well as retailers buying flower on a white label basis from 3rd party growers). So, while the wholesale market has grown as the overall market has expanded, wholesaling net share has dropped (to 74.2% from 71.8%). The top 5 brands had 37.4% share in Aug vs. 36% in Mar (including house brands in the base calculation).

Flower wholesale share. Excluding house brands, in terms of the net wholesale market, SunMed had 21.2% share, District Cannabis 11.1%, Curio Wellness 8.8%, Garcia Hand Picked 4.7%, Grow West 4.7%, and gLeaf 4.1% (Columbia Care). Eight brands had >3% - <4% share (in this order): Grassroots (Curaleaf), Rhythm (Green Thumb), Strane (Holistic, a private MSO), Good Green (Green Thumb), Matter. (PharmaCann, a private MSO), Roll One (Trulieve), Evermore (private MD company), Modern (Ascend), and CULTA (private MD operator).

- SunMed Growers is an independent private company owned by the Wingerden family, which earned one of the original 15 grower licenses in the state. According to a WBALTV report, the company has 400,000 sq ft of growing space (4x the cap set by NY regulator) and 120 employees.
- District Cannabis (also private) is one of 8 licensed med growers in Washington DC and one of 18 med license growers in MD.
- Curio Wellness (also private) has 160,000 sq ft of indoor growth. The company also licenses brands from TPCO.
- Garcia Hand Picked is a brand licensed by private MSO Holistic Industries for MD and MA in the east.
- Grow West Cannabis Company is also a family-owned company in MD.

Changes in net wholesale share by vendors. In the aggregate, the top 5 brands (ex-house brands) had 50.4% of the flower market in August vs. 46.3% in March; but only two of the top 5 wholesale brands gained share between Mar and Aug. We realize some of this analysis may be distorted as more growers allocated more output to their own stores. The biggest gainer was SunMed, going from 12% net wholesale share in March (9.3% overall including house brands) to 21.2% (15.7%) in August; District Cannabis went from 8.9% to 11.1%. Grow West was an example of a company allocating more products to its stores (its flower net wholesale share dropped to 4.7% from 9.2%).



Price and share trends in other formats

Vape

- Vape retail prices were up 13% between Mar and Aug, while costs only increased by 3%.
- House brand share increased from 25.4% to 30.4%, during the same period.
- In Aug, the top 5 brands had a combined 33.7% share including house brands in the base. In the net wholesale market (excluding house brands), the top 5 brands had 48.5% share vs. 49.4% in Mar.
- Brands with 5% share (or more) in net wholesale in Aug were: Hellavated 11.7% (private brand from WA, licensed in MD); AiroPro 10.4% (licensed brand from the west coast); Select 10.2% (Curaleaf); &Shine 9.1% (Green Thumb); SunMed 7.1%; and Strane 6.8%.
- Brands with net wholesale shares between 2-5% include (in decreasing order) O.penVape; In House; Rhythm; Curio; District, Fuzed, Cresco, Beezle, and CULTA.

Edibles

- Retail prices were up 35% between Mar and Aug, while costs increased by 24%.
- House brand share increased from 18.5% to 24.7% (a sign of vendors allocating more product to owned stores).
- The top 5 brands had a combined 49.8% share including house brands in the base. In the net wholesale market (excluding house brands), the top 5 brands had 66.2% share vs. 73.1% in Mar.
- Brands with 5% share (or more) in net wholesale in Aug were: Curio 26.2%; Incredibles 11.3% (Green Thumb); Betty's Eddies 10.6% (MariMed); Encore Edibles 10.3% (Verano); HiColor 7.8% (Goodness Growth); Smokiez Edibles 7.1% (Curio). Dixie Elixirs 5.2% (Curio); and In House 5.1% (Ascend).
- Brands with net wholesale shares between 2% and 3% include (in decreasing order): Select, Bubby's Baked; Wana (licensed to TerrAscend); Evermore.

Pre-rolls

- Retail prices were up 26% between Mar and Aug, while costs increased by 16%.
- House brand share increased from 19% to 23.6% (again, a sign of vendors allocating more product to owned stores).



- The top 5 brands had a combined 50.1% share including house brands in the base. In the net wholesale market (excluding house brands), the top 5 brands had 65.6% share vs. 53.7% in Mar.
- Brands with 5% share (or more) in net wholesale (excluding house brands) in Aug were: SunMed 19.9%; Dogwalkers 13.3% (Green Thumb); Verano 12.9%; District 12.9%; Curio 6.5%; Grow West 6.3%; gLeaf 6.2%; Nature's Heritage 5.4% (MariMed); Cookies 5% (TerrAscend).
- Only one brand had net wholesale share between 2-3% (Kaviar, from Curio)



Links to our recent publications:

[Roadmap to Dec 2024](#) (July 18)

[2Q23 US MSO Trends](#) (July 21)

[Canadian LP Dynamics](#) (Jul 25)

[On the Rescheduling Question](#) (July 28)

[Canada Pre-Rolls: Deep Dive](#) (Aug 7)

[Med Sales Impact from Rec Start](#) (Aug 16)

[Canada Flower Prices and Share Trends](#) (Aug 28)

[HHS Rescheduling Recommendation](#) (Aug 31)

[Canada's Leading Exporters](#) (9/5)

Table 1: Stocks mentioned in this report (the rest are private companies or brands)

Name	Ticker	Rating
4Front Ventures	FFNTF	Not rated
Acreage Holdings	ACRDF	Not rated
Ascend Wellness	AAWH	Not rated
AYR Wellness	AYRWF	Not rated
Columbia Care	CCHWF	Not rated
Cresco Labs	CRLBF	Not rated
Curaleaf Holdings	CURLF	Not rated
Green Thumb Industries	GTBIF	Not rated
Jushi Holdings	JUSHF	Not rated
MariMed Inc	MRMD	Not rated
Planet 13 Holdings	PLNHF	Not rated
Schwazze	SHWZ	Not rated
StateHouse Holdings Inc	STHZF	Not rated
TerrAscend Corp.	TSNDF	Not rated
TILT Holdings, Inc.	TLLTF	Not rated
Trulieve Cannabis	TCNNF	Not rated
Verano Holdings	VRNOF	Not rated
Vext Science, Inc.	VEXTF	Not rated

Source: FactSet; Z&A



Appendix I: Company Data



Exhibit 1: Sales (\$Mn)

	CY20	1Q21	2Q21	3Q21	4Q21	CY21	1Q22	2Q22	3Q22	4Q22	CY22	1Q23	2Q23
SALES (\$Mn)													
Acreage	114.5	38.4	44.2	48.2	58.1	188.9	56.9	61.4	61.4	57.5	237.1	56.0	58.1
Ascend	143.7	66.1	83.4	94.4	88.5	332.4	85.1	97.5	111.2	112.1	405.9	114.2	123.0
AYR	155.1	58.4	91.3	96.2	111.8	357.6	99.5	110.1	119.6	136.3	465.6	117.7	116.7
Columbia Care	179.5	86.1	102.4	132.3	139.3	460.1	123.1	129.6	132.7	126.2	511.6	124.5	129.2
Cresco	476.3	178.4	210.0	215.5	217.8	821.7	214.4	218.2	210.5	199.6	842.7	194.2	197.9
Curaleaf	626.6	260.3	312.2	317.1	306.3	1,196.0	296.1	337.6	339.7	363.0	1,336.3	336.5	338.6
4Front	57.6	23.0	27.1	25.9	28.5	104.6	26.0	28.4	32.5	31.6	118.6	30.4	30.7
Goodness Growth	49.2	13.2	14.2	13.4	13.7	54.4	15.6	21.1	18.9	19.0	74.6	19.1	20.2
Green Thumb	556.6	194.4	221.9	233.7	243.6	893.6	242.6	254.3	261.2	259.3	1,017.4	248.5	252.4
ianthus	151.7	51.8	54.2	49.3	47.7	203.0	42.8	43.5	39.4	37.6	163.2	36.8	38.7
Jushi	80.8	41.7	47.7	54.0	65.9	209.3	61.9	72.8	72.8	76.8	284.3	69.9	66.4
Marimed	50.9	24.6	32.6	33.2	31.0	121.5	31.3	33.0	33.9	35.8	134.0	34.4	36.5
Planet13	70.5	23.8	32.8	33.0	29.9	119.5	25.7	28.4	25.6	24.8	104.6	24.9	25.8
Schwazze	24.0	19.3	30.7	31.8	26.5	108.4	31.8	44.3	43.2	40.1	159.4	40.0	42.4
StateHouse	60.0	12.4	15.4	17.4	15.1	60.3	17.3	34.6	30.8	25.5	108.2	24.7	25.3
TerrAscend	148.0	53.4	58.7	49.1	33.0	194.2	48.6	64.8	67.0	67.4	247.8	69.4	72.1
Tilt	158.4	46.8	48.5	53.4	54.1	202.7	42.4	47.1	40.5	44.3	174.2	42.3	41.6
Trulieve	521.5	193.8	215.6	224.1	304.9	938.4	317.7	313.8	300.8	307.4	1,239.8	289.1	281.8
Verano	228.5	120.9	198.7	206.8	211.4	737.9	202.2	223.7	227.6	225.9	879.4	227.1	234.1
Vext	25.2	9.2	9.4	9.4	9.3	37.2	10.8	8.8	7.7	8.2	35.4	9.1	9.2

Source: Company reports, and Z&A estimates



Exhibit 2: Gross Margins

	CY20	1Q21	2Q21	3Q21	4Q21	CY21	1Q22	2Q22	3Q22	4Q22	CY22	1Q23	2Q23
GROSS MARGIN %													
Acreage	43%	54%	54%	49%	47%	51%	52%	50%	35%	35%	43%	48%	36%
Ascend	42%	45%	41%	43%	35%	41%	28%	34%	33%	37%	33%	31%	23%
AYR	57%	42%	24%	42%	46%	39%	41%	37%	41%	44%	41%	41%	49%
Columbia Care	35%	39%	53%	55%	25%	42%	46%	39%	39%	33%	39%	38%	40%
Cresco	43%	49%	48%	50%	51%	49%	50%	52%	47%	44%	48%	44%	44%
Curaleaf	50%	49%	50%	46%	46%	48%	54%	52%	49%	21%	43%	48%	43%
4Front	63%	60%	60%	60%	-1%	47%	52%	43%	46%	1%	35%	36%	31%
Goodness Growth	35%	43%	49%	38%	16%	36%	16%	49%	51%	45%	41%	50%	46%
Green Thumb	55%	57%	55%	55%	53%	55%	51%	49%	50%	48%	50%	50%	50%
iAnthus	54%	57%	58%	53%	47%	54%	53%	45%	41%	43%	46%	42%	48%
Jushi	47%	45%	48%	43%	28%	40%	31%	37%	38%	29%	34%	43%	46%
Marimed	62%	54%	60%	55%	50%	55%	54%	45%	48%	44%	48%	45%	45%
Planet13	49%	54%	57%	53%	57%	55%	50%	49%	41%	43%	46%	44%	46%
Schwazze	28%	38%	48%	47%	46%	46%	34%	57%	60%	57%	53%	58%	58%
StateHouse	47%	47%	46%	48%	32%	43%	32%	43%	36%	42%	39%	44%	49%
TerrAscend	55%	65%	59%	44%	64%	58%	32%	35%	36%	57%	41%	49%	50%
Tilt	37%	32%	27%	24%	18%	25%	22%	23%	24%	19%	22%	21%	10%
Trulieve	74%	70%	67%	69%	43%	60%	57%	56%	56%	51%	55%	52%	50%
Verano	59%	45%	50%	64%	20%	45%	49%	44%	54%	45%	48%	48%	49%
Vext	39%	45%	45%	44%	42%	44%	75%	65%	60%	32%	59%	51%	30%

Source: Company reports, and Z&A estimates



Exhibit 3: Adj EBITDA

	CY20	1Q21	2Q21	3Q21	4Q21	CY21	1Q22	2Q22	3Q22	4Q22	CY22	1Q23	2Q23
ADJ EBITDA													
Acreage	-29.5	1.6	8.1	6.5	8.5	24.6	8.6	10.4	8.8	7.0	34.8	10.6	6.8
Ascend	30.8	15.8	20.3	23.5	19.8	79.4	16.4	20.9	27.8	28.2	93.2	23.3	21.3
AYR	49.8	18.4	27.4	26.0	26.1	98.0	16.1	19.6	21.9	29.5	86.8	26.3	29.4
Columbia Care	-19.8	3.8	10.9	31.0	-65.1	57.9	16.8	12.0	21.0	17.5	67.4	16.4	20.3
Cresco	60.8	35.0	45.5	56.4	57.0	194.0	50.7	50.6	41.7	29.6	172.7	29.3	40.5
Curaleaf	144.1	62.6	64.5	71.4	63.3	261.8	82.3	86.6	86.6	76.9	305.4	73.2	70.0
4Front	15.9	4.3	7.5	7.5	10.9	34.0	7.4	9.2	9.3	1.8	32.5	3.5	2.0
Goodness Growth	-5.2	-1.8	-1.0	-1.9	-4.4	-9.1	-2.6	2.3	1.9	2.5	4.1	1.4	2.8
Green Thumb	179.6	71.4	79.3	81.2	76.0	307.8	67.0	78.7	84.5	81.2	311.5	76.2	89.9
iAnthus	106.1	5.2	8.1	2.9	-10.7	5.6	9.9	-354.7	-5.2	-37.0	-386.9	0.9	-0.4
Jushi	3.8	4.5	8.1	6.2	-4.4	14.3	-0.9	0.5	0.7	6.8	7.1	7.6	12.6
Marimed	16.3	8.0	13.9	12.6	1.8	42.8	10.4	8.9	8.6	6.1	32.4	7.1	6.3
Planet13	8.2	6.0	6.4	2.6	1.9	16.9	2.6	1.3	0.4	-0.8	3.5	0.7	-0.6
Schwazze	-7.6	5.8	10.0	8.8	7.5	32.2	7.9	15.0	15.9	13.3	52.0	14.5	13.8
StateHouse	7.4	1.0	3.5	2.9	-6.5	0.8	-3.6	-4.8	-5.5	-4.9	-18.7	-2.4	0.6
TerrAscend	47.6	21.6	23.2	9.2	15.6	69.6	4.9	5.8	11.3	16.9	38.8	12.2	12.8
Tilt	-7.2	5.7	7.1	5.0	4.5	22.3	1.5	1.1	0.6	-0.4	2.8	-0.1	1.5
Trulieve	260.1	90.8	95.3	98.0	100.4	384.6	105.4	104.5	98.8	106.2	400.1	78.2	78.7
Verano	176.9	60.8	80.6	110.7	87.2	339.3	87.2	75.5	82.1	78.9	323.8	79.7	81.3
Vext	6.8	3.1	3.5	3.5	3.4	13.4	3.8	4.8	3.3	3.2	15.1	2.9	1.0

Source: Company reports, and Z&A estimates



Exhibit 4: Reported Operating Cash Flow

	CY20	1Q21	2Q21	3Q21	4Q21	CY21	1Q22	2Q22	3Q22	4Q22	CY22	1Q23	2Q23
OPERATING CASH FLOW													
Acreage	-67.7	-1.6	-19.4	2.7	-22.2	-40.5	-5.4	-18.1	-7.0	-19.6	-50.1	-8.1	-0.5
Ascend	-6.0	-7.8	-4.2	-10.2	-19.4	-41.7	-10.2	-10.3	-1.8	-16.1	-38.4	5.8	25.4
AYR	36.5	-19.9	-2.5	0.2	-5.6	-27.8	-21.2	-13.7	0.2	0.5	-34.2	10.3	-5.3
Columbia Care	-49.7	-3.5	-15.6	23.4	-4.8	-0.5	-27.8	-72.0	-16.8	5.2	-111.4	-3.4	-0.3
Cresco	-7.8	13.0	-43.2	7.1	37.7	14.5	-3.4	-7.1	25.6	3.6	18.7	3.3	18.0
Curaleaf	12.4	-6.0	-73.1	51.7	-30.8	-58.3	45.6	-34.0	59.9	-25.1	46.4	14.2	22.8
4Front	-14.0	2.8	4.3	4.0	5.8	5.8	-2.4	-2.9	-2.0	8.8	8.8	-6.9	-4.2
Goodness Growth	-19.8	-6.0	-6.0	-5.4	-10.8	-29.8	-13.5	-4.9	-6.6	-10.9	-38.4	-7.4	-6.0
Green Thumb	95.9	39.7	8.6	34.5	49.3	132.0	55.4	-15.5	48.3	70.3	158.6	74.7	18.3
iAnthus	-9.8	5.5	6.9	7.5	-3.7	16.1	1.8	-7.4	-8.5	-5.4	-19.5	-0.8	1.1
Jushi	-12.4	0.5	-13.6	-1.4	0.2	-14.3	-13.8	-13.9	1.5	4.8	-21.4	-3.6	-6.7
Marimed	3.4	6.8	10.8	10.7	7.6	35.9	8.5	-6.3	3.3	1.7	7.3	-4.5	1.3
Planet13	-0.9	4.3	-0.2	-1.9	-2.6	-0.4	3.0	-1.8	1.1	1.5	3.8	-5.2	-1.6
Schwazze	-9.8	1.7	-0.3	3.4	3.6	8.4	3.6	-11.6	4.0	15.3	11.4	-0.9	2.7
StateHouse	-0.6	-0.9	-5.4	-4.7	-4.3	-15.3	-0.3	-21.8	-10.7	-4.2	-37.1	-1.4	3.7
TerrAscend	-27.9	6.2	-16.3	-17.9	3.9	-24.2	-18.8	-16.1	1.5	11.6	-21.8	8.4	3.9
Tilt	16.7	2.6	0.0	-6.6	-4.7	-8.6	4.2	-0.4	4.5	0.3	8.6	3.8	-3.3
Trulieve	99.6	59.6	-10.4	25.9	-62.2	12.9	45.1	-55.4	-21.6	55.0	23.1	0.4	-23.5
Verano	71.6	24.8	32.0	74.7	51.3	182.9	34.5	9.2	21.7	29.0	94.3	16.9	25.1
Vext	3.1	2.3	2.2	2.2	4.5	11.3	3.1	0.9	-1.0	2.9	5.9	0.4	3.1

Source: Company reports, and Z&A estimates



Exhibit 5: Financial Net Debt

	CY20	1Q21	2Q21	3Q21	4Q21	CY21	1Q22	2Q22	3Q22	4Q22	CY22	1Q23	2Q23
NET DEBT													
Acreage	-125.8	-134.6	-104.7	-113.6	-126.5	-126.5	-143.9	-172.2	-175.5	-191.0	-191.0	-202.7	-213.9
Ascend	-153.5	-185.9	-48.2	-51.1	-103.3	-103.3	-89.9	-152.7	-219.0	-256.5	-256.5	-250.8	-241.8
AYR	-38.6	-1.9	-64.0	-124.8	-228.4	-228.4	-353.0	-370.7	-405.1	-352.0	-352.0	-341.3	-378.8
Columbia Care	-23.4	88.9	7.6	-23.1	-78.7	-78.7	-139.7	-244.2	-277.2	-280.9	-280.9	-290.6	-290.4
Cresco	-140.6	-27.4	-157.1	-224.5	-258.9	-258.9	-313.4	-394.1	-364.6	-366.4	-366.4	-408.6	-415.0
Curaleaf	-218.0	-24.9	-4.4	-24.8	-160.6	-160.6	-341.4	-399.9	-401.4	-459.5	-459.5	-478.0	-489.1
4Front	-48.1	-47.2	-43.6	-47.7	-48.2	-48.2	-62.0	-76.9	-79.2	-69.0	-69.0	-78.9	-79.2
Goodness Growth	25.1	20.9	1.2	-12.2	-12.2	-12.2	-22.6	-28.9	-33.8	-42.9	-42.9	-47.9	-49.5
Green Thumb	-15.3	175.8	161.6	31.8	-9.5	-9.5	-69.7	-108.2	-108.3	-98.0	-98.0	-92.5	-140.9
iAnthus	-159.7	-164.9	-166.5	-168.2	-176.8	-176.8	-178.2	-107.9	-120.2	-132.9	-132.9	-139.2	-145.8
Jushi	40.1	115.8	68.9	-8.1	-31.0	-31.0	-65.2	-142.8	-168.8	-163.1	-163.1	-174.9	-183.5
Marimed	-33.7	-6.9	-0.5	6.3	11.0	11.0	15.4	-15.5	-14.8	-20.0	-20.0	-31.9	-38.1
Planet13	78.1	140.2	135.4	127.8	60.7	60.7	61.3	51.7	50.0	51.5	51.5	41.8	39.6
Schwazze	-17.7	-31.3	-33.1	-38.2	8.8	8.8	-70.3	-87.2	-85.7	-88.8	-88.8	-96.0	-135.6
StateHouse	-38.5	-19.2	-24.3	-31.7	-39.1	-27.3	-66.8	-110.9	-124.1	-130.9	-130.9	-131.6	-125.6
TerrAscend	-129.4	51.9	-40.3	-90.2	-99.8	-99.8	-168.4	-202.8	-224.7	-179.2	-179.2	-175.6	-186.2
Tilt	-64.3	-63.7	-64.4	-73.5	-79.7	-79.7	-78.7	-95.4	-54.4	-56.2	-56.2	-43.7	-52.9
Trulieve	58.7	70.0	193.0	-3.9	-421.0	-421.0	-460.3	-552.6	-620.9	-578.3	-578.3	-640.6	-631.1
Verano	-23.8	71.9	15.9	-105.8	-190.8	-190.8	-244.6	-309.8	-315.7	-328.2	-328.2	-320.2	-317.8
Vext	-8.9	6.0	-6.4	-7.4	-7.4	-7.4	-8.7	-11.1	-16.2	-31.3	-31.3	-35.3	-34.7

Source: Company reports, and Z&A estimates



Appendix II: Valuation Comps



Exhibit 6: Valuation Comps – Part I

Company name	Ticker	Listing	9/13/2023					Consensus					EBITDA mgn %	Net debt EBITDA	
			Price US\$	Mkt Cap	(mn) Shares	Net (Debt)	Ent Value	EV/Sales 2Q23 Annualized	EV/EBITDA	EV/Sales 1yr Forward	EV/EBITDA Consensus	1yF Estimates (US\$Mn) Sales			EBITDA
US MSOs															
4Front Ventures Corp.	FFNTF	US OTC	0.25	162	648.6	-79	241	2.0x	30.4x	1.8x	8.5x	133	28	21%	-2.8x
Acreage Holdings, Inc. Class D	ACRDF	US OTC	0.47	65	138.1	-214	279	1.2x	10.2x	1.2x	7.1x	235	39	17%	-5.4x
Ascend Wellness Holdings LLC Clz	AAWH	US OTC	1.15	252	218.8	-242	493	1.0x	5.8x	0.9x	4.3x	544	115	21%	-2.1x
Ayr Wellness, Inc.	AYRWF	US OTC	2.76	213	77.2	-379	592	1.3x	5.0x	1.1x	4.5x	521	132	25%	-2.9x
C21 Investments Inc	CXXIF	US OTC	0.34	41	120.0	0	41	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A
Columbia Care, Inc.	CCHWF	US OTC	1.31	549	419.3	-290	840	1.6x	10.3x	1.5x	8.1x	555	104	19%	-2.8x
Cresco Labs, Inc.	CRLBF	US OTC	2.23	973	436.5	-415	1,388	1.8x	8.6x	1.8x	8.4x	770	165	21%	-2.5x
Curaleaf Holdings, Inc.	CURLF	US OTC	5.07	3,644	718.7	-489	4,133	3.1x	14.8x	2.9x	12.2x	1,410	338	24%	-1.4x
Glass House Brands Inc	GLASF	US OTC	4.81	268	55.7	-59	327	#N/A	#N/A	2.0x	11.3x	168	29	17%	-2.1x
Gold Flora Corporation	GRAMF	US OTC	0.14	15	107.5	30	-15	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A
Goodness Growth Holdings, Inc.	GDNSF	US OTC	0.18	16	86.7	-124	140	1.7x	12.3x	1.5x	7.9x	95	18	19%	-7.0x
Green Thumb Industries Inc.	GTBIF	US OTC	11.02	2,630	238.8	-141	2,771	2.7x	7.7x	2.6x	8.5x	1,077	327	30%	-0.4x
Grown Rogue International Inc.	GRUSF	US OTC	0.23	38	170.6	-3	42	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A
Jushi Holdings Inc Class B	JUSHF	US OTC	0.73	144	196.6	-141	284	1.1x	5.6x	1.0x	4.8x	298	60	20%	-2.4x
Lowell Farms Inc	LOWLF	US OTC	0.27	3	12.2	-55	58	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A
MariMed Inc	MRMD	US OTC	0.49	181	371.6	-38	219	1.5x	8.7x	1.3x	5.1x	168	43	26%	-0.9x
Planet 13 Holdings, Inc.	PLNHF	US OTC	0.85	188	222.2	40	149	1.4x	-63.6x	1.0x	9.1x	144	16	11%	2.4x
Red White & Bloom Brands, Inc.	RWBYF	US OTC	0.06	27	469.5	-142	169	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A
Schwazze	SHWZ	US OTC	0.96	69	71.7	-136	204	1.2x	3.7x	1.0x	2.9x	211	71	34%	-1.9x
StateHouse Holdings Inc	STHZF	US OTC	0.06	16	252.5	-140	156	1.5x	61.5x	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A
TerrAscend Corp.	TSNDF	US OTC	2.14	556	259.6	-216	772	2.7x	15.1x	2.2x	10.0x	347	77	22%	-2.8x
The Greenrose Holding Company	GNRS	US OTC	0.02	0	16.1	-98	98	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A
TILT Holdings, Inc.	TLLTF	US OTC	0.04	16	378.5	-53	69	0.4x	11.3x	0.4x	8.3x	181	8	5%	-6.3x
Trulieve Cannabis Corp.	TCNNF	US OTC	6.62	1,231	186.0	-631	1,862	1.7x	5.9x	1.6x	5.9x	1,129	315	28%	-2.0x
Verano Holdings Corp. Class A	VRNOF	US OTC	4.63	1,590	343.4	-318	1,908	2.0x	5.9x	1.9x	5.9x	1,011	322	32%	-1.0x
Vext Science, Inc.	VEXTF	US OTC	0.20	30	151.1	-35	64	1.8x	15.4x	1.2x	3.7x	55	17	31%	-2.0x

Source: FactSet, company reports, and Z&A estimates

Exhibit 7: Valuation Comps – Part II

Company name	Ticker	Listing	9/13/2023				Consensus						
			Price US\$	Mkt Cap	(mn) Shares	Net (Debt)	Ent Value	EV/Sales 1yF	EV/EBITDA 1yF	1yF Estimates (US\$Mn)		EBITDA mgn %	Net debt EBITDA
Canada													
Aleafia Health, Inc.	ALEAF	US OTC	0.02	6	403.2	-34	40	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A
Aurora Cannabis Inc.	ACB	NASDAQ	0.82	282	345.3	54	228	1.1x	14.7x	206	16	8%	3.5x
Auxly Cannabis Group Inc.	CBWTF	US OTC	0.01	12	906.0	-132	144	1.4x	-68.9x	106	-2	-2%	63.1x
Avant Brands Inc	AVTBF	US OTC	0.14	29	206.1	3	27	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A
BZAM Ltd	BZAMF	US OTC	0.12	19	157.1	0	19	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A
Canopy Growth Corporation	CGC	NASDAQ	1.22	629	517.3	-459	1,088	3.4x	-10.0x	323	-109	-34%	4.2x
Cronos Group Inc	CRON	NASDAQ	2.54	965	380.6	874	91	0.9x	-2.6x	96	-34	-36%	-25.4x
Decibel Cannabis Company Inc	DBCCF	US OTC	0.13	51	404.7	-34	84	0.6x	2.4x	136	36	26%	-0.9x
Entourage Health Corp	ETRGF	US OTC	0.01	4	306.7	-91	95	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A
High Tide, Inc.	HITI	NASDAQ	1.85	131	71.0	-33	164	0.3x	4.9x	530	34	6%	-1.0x
Nova Cannabis Inc	NVACF	US OTC	0.41	23	57.2	-40	63	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A
OrganiGram Holdings Inc	OGI	NASDAQ	1.72	135	78.5	73	62	0.5x	6.6x	125	9	8%	7.7x
Rubicon Organics, Inc.	ROMJF	US OTC	0.40	22	56.1	-1	24	0.5x	2.4x	51	10	19%	-0.1x
SNDL Inc.	SNDL	NASDAQ	2.22	522	235.2	116	406	0.6x	19.3x	714	21	3%	5.5x
Tilray Brands, Inc.	TLRY	NASDAQ	2.95	1,937	656.7	-142	2,078	2.7x	26.5x	759	78	10%	-1.8x
Village Farms International, Inc.	VFF	NASDAQ	0.94	104	110.0	-49	153	0.5x	18.9x	289	8	3%	-6.1x

Source: FactSet, company reports, and Z&A estimates

Exhibit 8: Valuation Comps – Part III

Company name	Ticker	Listing	9/13/2023				Consensus						
			Price US\$	Mkt Cap	(mn) Shares	Net (Debt)	Ent Value	EV/Sales 1yF	EV/EBITDA 1yF	1yF Estimates (US\$Mn)		EBITDA mgn %	Net debt EBITDA
Service Providers													
AFC Gamma, Inc.	AFCG	NASDAQ	12.78	260	20.4	-17	277	4.0x	#N/A	69	#N/A	#N/A	#N/A
Chicago Atlantic Real Estate Finance, Ir	REFI	NASDAQ	14.78	263	17.8	-52	315	5.2x	#N/A	61	#N/A	#N/A	#N/A
GrowGeneration Corp.	GRWG	NASDAQ	3.52	215	61.0	23	192	0.8x	-52.0x	229	-4	-2%	-6.3x
Hydrofarm Holdings Group, Inc.	HYFM	NASDAQ	1.27	57	45.2	-165	222	0.9x	25.3x	240	9	4%	-18.7x
Innovative Industrial Properties Inc	IIPR	NYSE	85.51	2,392	28.0	-14	2,406	7.8x	9.7x	308	248	80%	-0.1x
Leafly Holdings, Inc.	LFly	NASDAQ	9.56	21	2.2	-4	24	0.5x	-10.9x	46	-2	-5%	1.6x
NewLake Capital Partners, Inc.	NLCP	US OTC	13.85	297	21.4	42	255	5.5x	#N/A	46	#N/A	#N/A	#N/A
RiverNorth Opportunities Fund, Inc.	RIV	NYSE	11.23	207	18.5	18	189	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A
SHF Holdings Inc Class A	SHFS	NASDAQ	0.53	13	23.7	7	5	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A
Scotts Miracle-Gro Company Class A	SMG	NYSE	53.44	2,966	55.5	-3,183	6,149	1.7x	11.9x	3,575	516	14%	-6.2x
Silver Spike Investment Corp.	SSIC	NASDAQ	10.17	63	6.2	85	-22	-1.4x	#N/A	15	#N/A	#N/A	#N/A
SpringBig Holdings, Inc.	SBIG	US OTC	0.17	5	26.7	-6	10	0.3x	7.3x	34	1	4%	-4.0x
urban-gro Inc	UGRO	NASDAQ	1.40	15	10.8	6	10	0.1x	-8.6x	108	-1	-1%	-5.0x
WM Technology, Inc. Class A	MAPS	NASDAQ	1.53	250	163.7	25	225	1.1x	8.6x	203	26	13%	0.9x
CBD, CPG, Pharma, International													
Cardiol Therapeutics Inc. Class A	CRDL	NASDAQ	0.97	62	64.0	44	18	#DIV/0!	-1.0x	0	-18	#DIV/0!	-2.4x
Charlotte's Web Holdings, Inc.	CWBHF	US OTC	0.35	54	152.1	9	45	0.6x	-5.4x	79	-8	-11%	-1.1x
Clever Leaves Holdings, Inc.	CLVR	NASDAQ	3.62	5	1.5	4	2	0.1x	-0.2x	27	-6	-24%	-0.6x
CV Sciences, Inc.	CVSI	US OTC	0.05	8	152.1	-1	9	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A
Hempfusion Wellness, Inc.	CBDHF	US OTC	0.00	0	99.7	0	0	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A
IM Cannabis Corp	IMCC	NASDAQ	0.75	6	7.6	-7	12	0.3x	5.6x	44	2	5%	-3.0x
InterCure Ltd.	INCR	NASDAQ	1.65	75	45.6	-2	78	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A
Jazz Pharmaceuticals Public Limited Cc	JAZZ	NASDAQ	134.61	8,509	63.2	-4,936	13,445	3.4x	7.1x	3,990	1,888	47%	-2.6x
Little Green Pharma Ltd.	LGPPF	US OTC	#N/A	#N/A	297.9	0	#N/A	#N/A	#N/A	40	4	9%	0.0x
PharmaCielo Ltd.	PCLOF	US OTC	0.15	23	155.0	-9	32	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A
Turning Point Brands Inc	TPB	NYSE	24.48	428	17.5	-314	742	1.8x	8.0x	420	93	22%	-3.4x

Source: FactSet, company reports, and Z&A estimates

Exhibit 9: Stock Performance

Stock Performance			
Ticker	Last 30d	Last 90d	Last 12mo
US MSOs			
FFNTF	136%	79%	-50%
ACRDF	105%	38%	-55%
AAWH	89%	64%	-38%
AYRWF	210%	224%	-29%
CXXIF	29%	21%	21%
CCHWF	206%	178%	-30%
CRLBF	89%	34%	-39%
CURLF	70%	69%	-14%
GLASF	30%	24%	84%
GNRS	3900%	-90%	-99%
GRAMF	10%	-25%	-85%
GDNSF	39%	20%	-86%
GTBIF	67%	44%	-9%
GRUSF	29%	50%	463%
JUSHF	89%	78%	-56%
LOWLF	-3%	-28%	-87%
MRMD	68%	22%	-7%
PLNHF	46%	51%	-38%
RWBYF	33%	nm	-36%
SHWZ	32%	-4%	-28%
STHZF	67%	54%	-75%
TSNDF	27%	32%	22%
TLLTF	47%	66%	-68%
TCNNF	63%	62%	-48%
VRNOF	65%	68%	-25%
VEXTF	3%	-2%	-27%

Stock Performance			
Ticker	Last 30d	Last 90d	Last 12mo
Canada			
ALEAF	#N/A	-32%	-71%
ACB	54%	52%	-49%
CBWTF	-6%	12%	-67%
AVTBF	-9%	33%	-16%
BZAMF	-1%	-36%	-74%
CGC	202%	82%	-68%
CRON	47%	47%	-22%
DBCCF	30%	26%	60%
ETRGF	8%	-14%	-58%
HITI	42%	42%	21%
NVACF	17%	-9%	-45%
OGI	29%	6%	-61%
ROMJF	10%	22%	-26%
SNDL	40%	59%	-21%
TLRY	13%	80%	-15%
VFF	11%	49%	-64%
CBD, CPG, Pharma, International			
CBDHF	na	0%	-100%
CRDL	5%	29%	-27%
CLVR	-42%	-51%	-86%
CVSI	43%	30%	3%
CWBHF	25%	61%	-36%
GNLN	-8%	-58%	-97%
IMCC	-26%	-30%	-83%

Stock Performance			
Ticker	Last 30d	Last 90d	Last 12mo
Service Providers			
AFCG	-1%	2%	-27%
AGFY	20%	-24%	-98%
CXXIF	29%	21%	21%
REFI	-1%	-5%	-1%
GRWG	18%	-5%	-27%
HYFM	24%	27%	-58%
IIPR	4%	18%	-11%
LFLY	39%	49%	-69%
NLCP	5%	16%	-12%
PW	-1%	-26%	-92%
RIV	-2%	0%	-23%
SMG	3%	-15%	-11%
SSIC	8%	25%	-1%
SBIG	-36%	-67%	-90%
UGRO	19%	4%	-56%
MAPS	44%	54%	-39%
CBD, CPG, Pharma, International			
INCR	10%	-21%	-66%
JAZZ	-3%	6%	-12%
LGPPF	na	na	na
PCLOF	56%	7%	-53%
TPB	-4%	7%	3%
YCBD	-15%	-28%	-91%

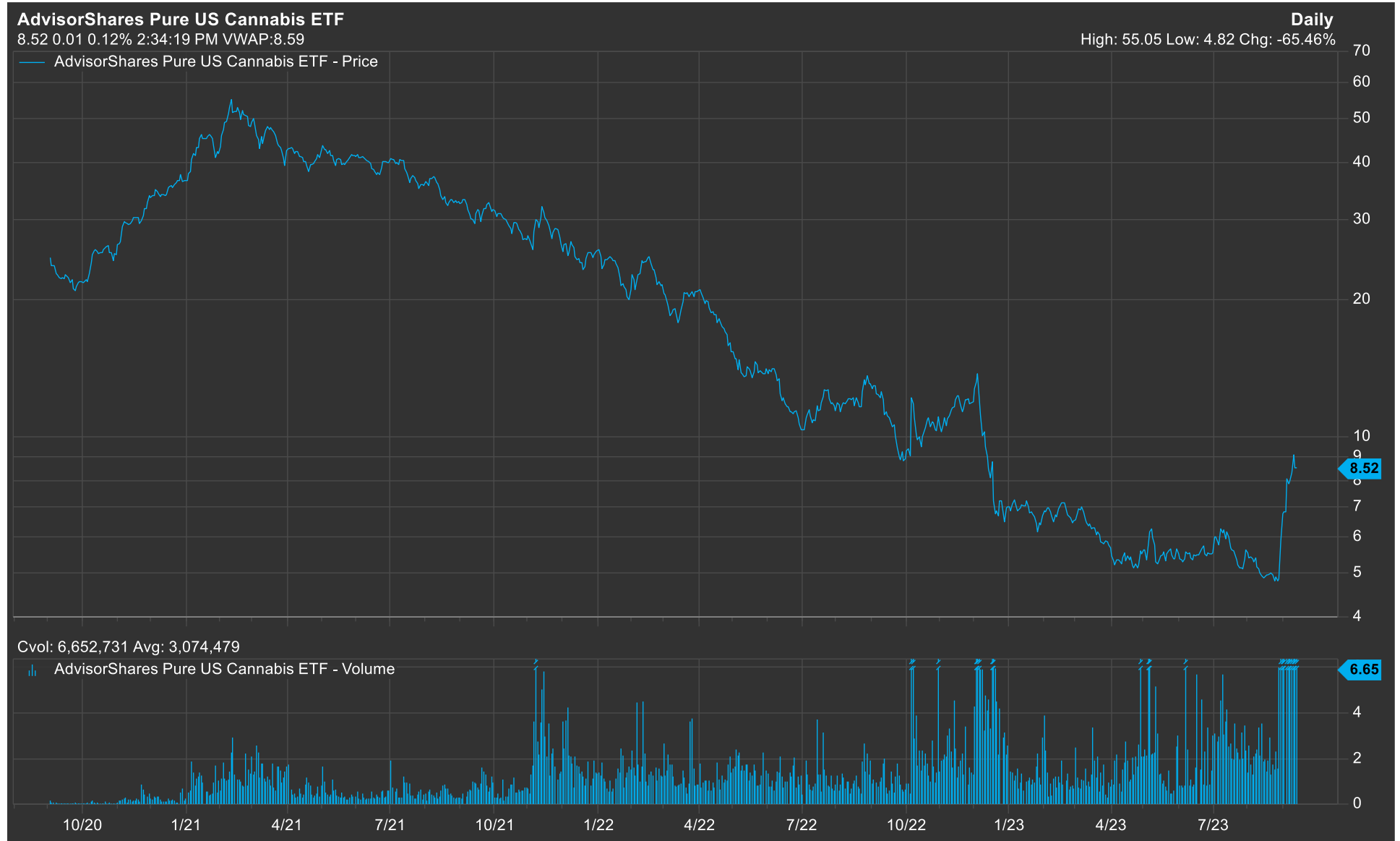
Source: FactSet



Appendix III: ETF



Exhibit 10: MSOS ETF since 7/31/20



Source: FactSet, company reports, and Z&A estimates

www.zuanicassociates.com



Appendix IV: Bio and Disclaimers



Analyst Bio

Pablo Zuanic is a well-known and highly rated equity analyst following the cannabis and psychedelics sector. Over the past four years he launched coverage of over 35 companies (MSOs, LPs, CBD, ancillary, psychedelics), kept close track of sectoral trends, and followed the reform process in the US and elsewhere. His firm Zuanic & Associates publishes equity research on the cannabis and psychedelics sectors, both from a macro/sectoral level in a thematic manner, as well as specific reports on listed stocks. The research service is aimed at institutional investors and corporations. The firm is also available for short term consulting and research advisory projects (www.zuanicassociates.com). At various points in his career, Pablo was II ranked and 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. Pablo can be contacted at pablo.zuanic@zuanicgroup.com.



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.

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.