7/21/2023

2Q Trends in Key States

Cannabis Sector Equity Research



Key Highlights:

- 2Q trends state by state.
- Trends are generally speaking, less bad.
- If fundamentals mattered, this could have been an inflection point.

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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. With the 7/18 report, we provided a blueprint for the various themes we will discuss in the year ahead. Here we go "in the weeds" with the state level data. Our databases are available upon request.

High Level Summary

Arguably fundamentals do not drive the MSO group, with federal reform news flow being the main catalyst. That said, as we head into 2Q earnings season, we review here key trends,

- When it comes to stocks, "less bad" is better than "still good", with the former generating delta, and the latter little movement on stocks. Obvious? We think this helps characterize 2Q, price deflation is still a factor, but it has not worsened; 2Q typically sees a seasonal bounce (after 1Q seq down), in several states yoy declines are less than in the past.
- Examples of the above: in IL the impact from MO rec is less than what we expected; FL deflation in 2Q lessened; yoy trends between 2Q and 1Q improved in AZ.
- On the whole, this may mean better sales trends for 2Q, although profit margins may change little from market-related factors (with internal cost savings initiatives the larger driver).
- MI stands out with 39% sales growth yoy, and accelerating vs. recent qtrs.
- In most states, it may be better to be a retailer than a grower/processor (say, AZ), based on the data, but there are exceptions, like MA, where we think growers are in a better place than retailers (especially, the larger growers).

Trends State by State

Arizona: 2Q23 flat seq at ~$341Mn, down 1% yoy (an improvement vs. -10% yoy in 1Q23).

- Sales: Official state data (reported taxable sales) is out through April only (4Q was up 6% seq, and 1Q flat), with average daily sales in Apr up 1% vs. the 1Q average (we do not focus on tax collected figures as they are more volatile). Headset shows 2Q sales (inc. June) flat seq, and only down 1% yoy, an improvement vs. 1Q. Based on the official data, reported 1Q23 sales amounted to $341Mn (rec $251Mn), down 10% yoy (rec +20% and med -47%).

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- Stores: There are now 156 dispensaries in AZ now (21 per 1mn people; low for the group), as per potguide. That equates to about $8.7Mn in annual sales per store (that is not bad at all compared with states in the NW or MI). We estimate AZ store gross margins near 50% based on Headset ($2.15/gram). There are no caps on store ownership in the state (but the total licenses are limited at 167); Trulieve (TCNNF/NC) and Curaleaf (CULRF/NC) lead with >20 each.

- Prices: Wholesale prices are now at $761/lb, the lowest in the country, and in line with CA. But retail prices for flower average $4.55/gram (above MI). So, compared with, say, MI, retailers enjoy better margins (higher retail prices, lower wholesale prices), and we attribute this to the "cap" (and concentrated) on the total number of stores in the state.

- Supplies: There are in essence no caps on the number of licensed growers.

- Brands: In flower, house brands (HB) have 38% share (2Q23 Headset), and outside HB, ten brands have a combined 33% share (two brands account for 9% of the segment, High Grade and Shango). In the vape segment, house brands have 24%, followed by STIIIZY with 16%, Timeless 16%, and Select 7%. In edibles, WYLD has 23% share and house brands 12% (the top 10 brands ex HB have 67% share).

California: 2Q23 sales of $1.25Bnn, down 12% yoy (flat seq).

- Sales: Official state $ sales data is only out through 1Q23 (-7% yoy and -6% qoq). Headset projects 2Q23 flat seq (-0.2%), which translates to $1.25Bn for 2Q23, or -12% yoy (worse than recent prior qtrs with yoy drops in the high single digits).

- Stores: As of 7/20/23, there are (in terms of active licenses, as per official state data), 1,216 retail storefronts and 498 retail non-store fronts (some of these may belong to store front owners). As we know, not all municipalities are open to cannabis retailing (CA's average 31 stores per 1mn people is well below the likes of OR and CO), but the state does have high store density in some locations. That said, assuming negligible sales for non-store front owners without store fronts, the average rev/store of $4.3Mn is not bad compared with other states mentioned in this review.

- Prices: Wholesale prices at $761/lb (among the lowest in the country), although down 6% yoy, have recovered after a trough of $633 in late Dec'22. Interestingly, CA flower retail prices are higher than in states like MI. As per Headset, average flower price per gram at retail is $5.84 in CA. Importantly, gross margins are in the low 50%s, which implies pretty decent retailer gross profit per gram of almost $3/gram.

- Supplies: We do not have precise data, and recognize the illicit market is a problem in the state. That said, as mentioned here, several of CA's metrics are most western states, as well as the likes of MI and MA.

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- Brands: The flower market is quite fragmented; house brands lead with (only) 6.5% share, and the top 10 brands ex HB only have a combined share of 22% (Cannabiotix leads with 3.7% share, but only four other brands have >2% share). In vape, house brands only have 1.3% share, while the top 10 brands have a combined 59% share; STIIIZY leads with 24% (vs. 9% in 1Q20), with Raw Garden next at #2 with 7% (down from 20% in 1Q20). In edibles, Kiva leads with 30% share (33% in 1Q20) and WYLD is #2 with 22% (15% in 1Q20); in total, the top 10 edibles brands have a combined 83% share.

Colorado: 2Q sales of $380Mn, down 14% yoy (1Q23 also -14% yoy).

- Sales: Official state $ sales data is out through May only (1Q23 was down 14% yoy, and 4Q22 down 18%), with average daily sales for Apr/May down 3.5% seq vs. the 1Q average. Headset shows 2Q sales (inc June) down 12%v yoy (-1.7% seq). If we extrapolate the -3.5% for June, that means 2Q23 sales of $380Mn, down 14% yoy Remarkably, -14% is less bad than recent qtrs, if that is any solace.

- Stores: There are over 1,100 stores in the state (188 stores per 1mn people) compared with 755 at the start of 2022. That translates into about $1.4Mn sales per store (only OR is lower at $1.2Mn and OK).

- Prices: Wholesale prices are now at $801/lb (among the lowest in the country ex AZ/CA), stable since 4Q22, and slightly up from a trough of $756 in late Dec. Retail rec prices for flower on average were at $3.16/gram in the June qtr (Headset), which is lower than MI. We estimate retailer gross margins in the high 50%s as per Headset data, but this is a low $1.84/gram for flower.

- Brands: In flower, house brands have 34% share (down significantly from 73% in 1H20), and ex HB, ten brands only have a combined 29% share; Maggie's Farm and Green Label each have 4% flower share. In the vape segment, house brands only have 4%, while the top 10 brands have a combined 47% share (Eureka! And Spherex lead with 7% and 6% share, respectively). In edibles, WYLD leads with 31% share (3% in 2Q20) and Wana is #2 with 21% (down from 28% in 1Q20); in total, the top 10 brands have a combined 85% share in edibles.

Florida: 2Q23 sales of $477Mn (Headset), up 4% yoy (vs. -1% yoy in 1Q23).

- Sales: Headset projects med $ sales in the state up 9% qoq, and up 4% yoy. OMMU volumes point to 10-11% seq growth for flower and non-flower volumes. Triangulating these numbers would imply about 2% price deflation seq (a lot better than the high single digit drop we calculate for 1Q23 using the same logic). The state added 2,010 patients per week on average in 2Q, about 3% better than the 1Q pace of 1,945. Assuming all these patients are active, monthly spend is about $212.

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- Stores: There are 579 stores in the state now compared with 509 at the end of 2022. Although Trulieve remains the leader with 126 stores, it has only opened 3 stores YTD; Verano (VRNOF/NR) is now at 69 stores (+7 YTD), AYR (AYRWF/NC) is at 61 (+6), and Curaleaf at 60 (+5). We estimate average sales per store for 2Q IN FL at $3.35Mn per annum (low). That said, OMMU implies Trulieve volumes per store are 2.4x vs. peers (for flower this ratio has been steady at 2.5x for the past year, but for non-flower the gap increased from 1.8x to 2.3x in favor of Trulieve).

- Prices: We have not completed our retail price surveys as of publication, and we do not have wholesale price data for FL.

- Supplies: As per Headset, 43% of sales in 2Q23 were flower, 25% vape, and 14% edibles.

Illinois: 2Q23 sales of $484Mn, up 1% and +4% seq.

- Sales: Official state $ sales data is out through June, pointing to $484Mn sales for 2Q23, with rec at $401Mn (+3% yoy) and med down 9% (-18% 2yr stacked) to $83Mn. Although stores bordering with MO have seen a meaningful impact on sales, in the aggregate the impact has been less than we expected. True, out of state shoppers accounted for 25% of total rec sales this June vs. 32% a year ago, and sales to out of state shoppers fell 15% yoy in June, but this was less than the 20% drop seen in Apr/May.

- Stores: The IDFPR has issued 132 licenses for adult use dispensaries (inc. 20 issued this year), besides another 185 social equity licenses (CAUDO) issued 7/22/22 (in the process of slowly opening). We estimate the number of open stores at present at 122, which means rev/store of near $16Mn (among the highest in the US), with wide variance across stores (depending on location and operators). As explained below, gross profits per store of $8.8Mn are among the best nationwide.

- Prices: Wholesale prices at $2,332/lb (among the highest in the US) are down 32% yoy but have remained pretty stable since March – we attribute these to the opening of new stores in the state. We estimate retail prices per gram at $12 and retailer gross margins at 56% in flower, or $6.70 per gram. In short state economics remain quite attractive.

- Supplies: According to Headset, in 2Q23 flower accounted for 42% of sales, vape for 27%, edibles for 13%, and pre rolls for 10%. The mix has been pretty consistent for the past two years.

- Brands: We do not have brand data at present.

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Maryland: 2Q sales up 5% seq but down 7% yoy.

- Sales: Rec sales began on 7/1/23 in MD ($21Mn sold in the first seven days of rec). Med sales in 2Q23 reached $123Mn (we calculate average $260 monthly spend per registered patient), up 5% seq but down 7% yoy (still better than low-teen drops in recent qtrs.). The ongoing decline is understandable given the anticipation of the start of rec.

- Stores: The potguide website shows 94 stores open (69 rec/med, 23 med, and 2 just rec). If the latter numbers are accurate, that would mean about ~$5Mn in sales per store.

- Prices: We do not have wholesale prices for MD. But we can estimate retail prices. According to Headset, in 2Q23 flower sales represented 47% of sales, vape 23%, and edibles 12%. Based on the retail volume data, that would mean average flower prices of $5.56/gram in June ($19.46 for 1/8 oz).

- Supplies: Stores clearly stocked up ahead of July 1st, flower volumes sold by growers was 1.5x dispensary volumes sold in the month of June.

Massachusetts: up 5% seq and yoy to $445Mn (vs. -1% yoy in 1Q23).

- Sales: 2Q sales reached $445Mn (official state data), with rec at $387Mn (+6% yoy) and med at $60Mn (down 2% yoy and -20% on a 2yr stacked basis).

- Stores: There are now 396 dispensaries open in MA (potguide), or 57 stores per 1mn people, but density varies by municipality (Boston 10 stores, Cambridge 12, Charlestown 14, Somerville, Worcester 14). Rev per store is at $4.5Mn.

- Prices: Wholesale prices are now at $1,306/lb, stable since Feb, but down 40% yoy. Retail rec prices for flower on average were at $5.82/gram in June (state data), below NV but higher than AZ and MI. We estimate gross margins in the mid 50s as per Headset data, and at $3.37/gram for flower.

- Supplies: Total plants harvested in April were up 92% yoy, while $ sales are up only mid-single digits. Obviously, this explains the wholesale price deflation. But as mentioned, retailer gross margins in % terms remain robust.

- Brands: In flower, house brands have 38% share (2Q23 Headset), and ex HB, ten brands have a combined 21% share; Cresco's (CRLBF/NR) High Supply leads among flower brands with 6% share. In the vape segment, house brands have 29% share, followed by Fernway with 8% and Green Thumb's (GTBIF/NC) Rhythm with 6%; the top 10 vape brands ex HB have 38% segment share. In edibles, Kiva leads with 15% share (house brands 14%), followed by Wana at #2 with 11% share, Coast Cannabis 7%, Marimed's (MRMD/NC) Betty's Eddies 6%, and Green Thumb's Incredibles 5%.

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Michigan: 2Q23 +23% seq and +39% yoy; in line with the 1Q23 pace, and above the 2H22 pace.

- Sales: 2Q sales reached $792Mn (official state data), with rec representing the bulk of sales ($770Mn). Med sales were down 31% yoy in 2Q23 while rec was up 55% yoy.

- Stores: There are now 694 active dispensary license operators with rec licenses, plus 305 with med licenses; adjusting for overlap there are 735 stores open (potguide). That equates to $4.3Mn in annual sales per store, which is not bad given the market's retail fragmentation (sales of $4Mn for a small mom-and-pop one store operation is not a bad number), and we estimate store gross margins in the mid 40s. But density is an issue, with only 135 municipalities opting in for rec vs. 1,373 opting out.

- Prices: Wholesale prices (end of June) at $1,006/lb have been stable YTD and bottomed at $933 at the end of Sep'22. That said, we do not expect reflation. At retail, flower prices on average are $11.9 for 1/8oz ($3.40/gram). So, gross profit per gram is low vs. other states at $1.53/gram. But on whole these are not bad economics compared with some of the western states, and notwithstanding the large # of stores in the state.

- Supplies: There are 919 active licensed growers (A to C) and 232 processors, for rec. As per the state data, flower accounted for 46% of rec sales in 2Q, vape for 18%, edibles for 10%, and inhalable compound concentrates for 8%.

- Brands: The flower segment remains rather fragmented, with house brands holding 28% share (2Q23 Headset), and ten brands with a combined 21% share (the #1 brand, Pro Gro has 3.9% share). Vape is only slightly less fragmented (house brand 17%), with the top 10 brands (ex-house brand) having a combined 45% share (#1 is Mitten 7.5%; #2 Drip 7.4%). In edibles house brands only have 7% share (WYLD 12%, Choice 11%, Kiva 9%); in total, the top 10 brands ex HB have 61% segment share.

Missouri: 2Q23 sales of $363Mn, up 286% yoy and 36% seq.

- Sales: Rec sales began in Feb'23 and reached $95Mn in the month of June (vs. $37Mn in med sales in Jan'23, or about 3x). But after the initial spurt monthly rec sales growth has stalled, with June up only 2% vs. March sales (supply constraints have been an issue, we are told). That said, total sales almost 4x 2Q22 levels is remarkable in such a short period.

- Stores: As per the state website, there are 197 dispensaries licensed to operate (for both rec and med services), but potguide shows 129 as open. If the latter is right, then that implies rev/store over $11Mn pa (again, a solid metric).

- Prices: We understand wholesale prices are about $2,500/lb.

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Nevada: 2Q23 up >1% to $216Mn, down 5% yoy (an improvement vs. -9% yoy in 1Q23).

- Sales: Official state data is out through April only (4Q was flat seq, and 1Q +1%), with average daily sales up 1.5% vs. the 1Q average. Headset shows 2Q sales (inc. June) up 1.2%. The official state data shows 1Q23 sales of $213Mn, down 9% yoy. Visitor volumes to Las Vegas (LVCA) were robust in 1Q23 (+19% yoy, and +7% yoy in 4Q22), but are now up only 3% yoy thru May for the last 3 months.

- Stores: There are now 66 dispensaries in NV now (potguide), with 32 in Las Vegas; Clark County account for 77% of NV total sales. We estimate the Planet 13 (PLNHF/NR) store (in terms of in-store revenue) has 9% share in Clark County and 7% in NV overall.

- Prices: Wholesale prices are now at $1,486/lb, down 16% yoy. Retail prices for flower on average are at $6.47/gram (Headset), well above neighboring AZ. Based on Headset, we estimate flower gross margins at 46% (vape and edibles in the mid 50s).

- Brands: In flower, house brands have 17% share (2Q23 Headset), and ex HB, ten brands have a combined 37% share; Curaleaf has 12% flower share (not counting what it sells in its own stores), with the next brand at 4%. In the vape segment, brands dominate (house brands only 2.6% share), with STIIIZY at 13% and Select at 8%; the top 10 brands have 56% share. In edibles, WYLD has 31% share, and Wana and Incredibles each 9% (the top 10 brands ex HB have 78% share, and house brands only 0.9%).

New Jersey: Sales seems to be slowing only one year after launch.

- Sales: 2Q sales are not out yet, but in 1Q23 total $ sales were down 2% seq after only 3% seq growth in 4Q. Total 1Q23 sales of $179Mn, were comprised by $145Mn in rec sales (+9% seq) and $34Mn in med (-31% qoq and -38% yoy). We attribute the paltry trends in total sales to high prices and the slow rollout of stores.

- Stores: As per potguide there were 30 stores in operation as of 7/20, or which only 19 offered rec/med (the other 11 only offered med). That said, as of 6/21 a total of 702 conditional retail licenses had been issued. If we just take rec sales, average rev per store for those 19 stores is $30Mn. Red tape, township pushback, and capital constraints, all explain the slow opening of stores.

- Prices: Our retail surveys point to $14/per gram (among the highest in the country). With 50% gross margins, we estimate stores on average generate $15Mn in gross profits per annum.

- Supplies: There are now 21 cultivation facilities licenses, and an additional 287 conditional cultivation licenses have been issued (as of 7/8).

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New Mexico: 2Q sales up 8% seq and +21% yoy.

- Sales: The official sales data point to $140Mn in sales for 2Q23, up 21% yoy and +8% seq. Rec sales only began in April 2022, and reached $96Mn in 2Q23 (+49% yoy). Med sales sales of $43Mn were stable seq. and down 15% yoy. But we remain perplexed by the average patient $ spend per month in NM (north of $350).

- Stores: The number of licenses issued is now 1,047, but the potguide website only shows 94 stores open (69 rec/med, 23 med, and 2 just rec). If the latter numbers are accurate, that would mean about $6Mn in sales per store per annum.

- Prices: Wholesale prices are now at $1,373/lb, down 10% since the start of the year, and down 38% yoy. Still, compared with other western states, these are relatively good prices.

Ohio: 2Q23 sales flat seq and yoy.

- Sales: Med sales of $119Mn in 2Q23 were flat yoy and seq; trend wise this is a slowdown vs. 5% yoy growth in 1Q23 and +14% in 1Q23. There were 174,591 active patients as of 5/31, which implies about $225 monthly spend per patient.

- Stores: The state regulator has issued 92 certificates of operations for dispensaries, but according to potguide only 61 have opened (the official page says 41 stores are active only, but we take the potguide as accurate). If so (61), that would mean $7.8Mn in revenues per store (well above average for a med state).

- Prices: We do not have wholesale prices for OH, or retail for that matter, for now.

- Supplies: As of 6/27 there were 32 operational cultivator licenses in the state (20 level I and 12 level II), which is mostly unchanged yoy.

Other: At the time of this report, we do not have reliable sales data for states like PA, VA, MN, CT, or NY. Brief color on these and other states,

- PA: We do not have a lot of fresh data. Wholesale prices in mid-July are $1,754/lb, down 22% since Oct, but slightly up since Apr.

- NY: We await final news when and if existing med operators can start offering rec services and supplying 3rd party rec retail stores.

- MN: The state will not begin rec sales until early 2024. There are only two licensees there for now, Green Thumb and Goodness Growth (GDNSF/NC).

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- CT: Wholesale flower prices are now at $2,689; although down 8%, they are mostly stable YTD, and well above most states. There are 19 med stores in the state at present with most by now offering rec.

- ME is a small market, but we note rec sales increased 43% yoy in 2Q23 to $52Mn (+15% seq, partly on seasonality). Average price per gram at retail is low compared with other eastern states at $7.69/gram (this is down 22% yoy). There are 120 rec stores in the state ($1.7Mn rev/store).

- WA: 2Q23 sales are seen down 4% yoy, but +3% seq, as per Headset. Wholesale prices of $899 are down 5% yoy. Retail prices per gram are only $3.36; retailer gross margins of 54% are equivalent to only $1.82/gram. We estimate rev/store of $2.9Mn (434 stores, or 57 per 1mn people).

- OR: 2Q23 sales of $242Mn (official data) were down 6% yoy (better than -9% in 1Q23), and mid-teen yoy declines for most of 2022. Wholesale prices of $734 are the lowest in the country but are up 7% yoy after a trough in mid 2022. Retail prices per gram are only $3.75 are only slightly higher than WA, but retailer gross margins are higher at 64% for flower $2.39/gram. With over 820 stores (200 per 1mn people), we estimate rev/store pa at only $1.2Mn.

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Appendix I: Market Projections & Data

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Exhibit 1: US Legal Cannabis Sales at Retail

US$ Mn	CY20	1Q21	2Q21	3Q21	4Q21	CY21	1Q22	2Q22	3Q22	4Q22	CY22	1Q23	2Q23	3Q23e	4Q23e	CY23e	CY24e	CY25e
Total	**17,888**	**5,675**	**6,455**	**6,428**	**6,372**	**24,930**	**6,122**	**6,589**	**6,557**	**6,627**	**25,895**	**6,687**	**7,158**	**7,187**	**7,319**	**28,352**	**31,513**	**36,409**
rec	11,478	3,690	4,341	4,301	4,229	16,561	3,987	4,325	4,348	4,384	17,045	4,240	4,551	4,484	4,558	17,833	19,387	22,117
med	6,410	1,985	2,114	2,127	2,143	8,369	2,134	2,263	2,210	2,242	8,850	2,447	2,607	2,704	2,762	10,519	12,126	14,292
Total (med/rec)	**17,888**	**5,675**	**6,455**	**6,428**	**6,372**	**24,930**	**6,122**	**6,589**	**6,557**	**6,627**	**25,895**	**6,687**	**7,158**	**7,187**	**7,319**	**28,352**	**31,513**	**36,409**
AZ	1,034	419	517	493	505	1,934	480	470	443	451	1,844	418	414	413	418	1,663	1,677	1,695
CA	4,480	1,341	1,565	1,429	1,445	5,780	1,328	1,413	1,298	1,343	5,382	1,250	1,314	1,284	1,333	5,181	5,299	5,418
CO	2,191	562	588	577	503	2,229	459	447	451	411	1,769	394	398	403	398	1,593	1,629	1,680
CT	117	37	40	42	44	163	45	45	45	45	182	59	68	77	90	294	429	593
FLA	842	308	360	385	403	1,456	428	446	416	450	1,740	437	477	524	534	1,973	2,231	2,418
GA	0	0	0	0	0	1	2	2	5	7	16	9	12	16	23	60	198	312
IL	1,035	377	448	471	481	1,776	452	479	482	494	1,907	467	484	498	508	1,957	2,034	2,127
MA	921	346	407	452	439	1,644	426	425	458	446	1,755	423	447	461	455	1,786	1,819	1,853
MD	453	138	140	137	136	551	134	132	125	119	509	118	123	155	178	575	938	1,232
ME	41	14	20	32	30	96	32	39	53	47	171	48	47	62	56	214	254	302
MI	985	359	451	498	484	1,793	461	569	630	635	2,294	642	792	635	622	2,690	2,810	2,901
MN	20	5	5	7	8	25	10	12	15	18	55	25	28	34	41	128	219	275
MO	21	24	41	66	79	210	84	94	101	111	390	266	363	371	379	1,380	1,649	1,807
NH	35	11	11	11	11	44	12	13	13	13	50	13	14	14	14	54	55	60
NJ	196	50	52	56	59	217	56	139	178	183	556	179	187	199	210	776	923	1,057
NM	119	29	30	30	30	119	0	116	121	122	358	130	140	141	144	554	560	572
NV	780	253	284	259	246	1,042	234	227	211	211	882	213	215	211	207	846	866	890
NY	200	60	61	63	66	250	72	74	75	80	300	82	88	95	109	374	739	1,421
OH	223	83	95	97	104	379	114	120	116	118	467	120	119	130	134	503	552	614
OK	428	123	125	125	128	502	144	147	147	150	588	169	173	173	176	690	810	950
OR	1,111	299	317	299	269	1,184	253	258	248	235	994	231	242	253	239	966	985	1,005
PA	765	307	350	360	377	1,394	359	377	375	373	1,483	374	364	354	344	1,436	1,379	1,777
RI	50	15	15	14	14	58	15	16	16	19	66	42	48	58	69	217	365	567
VA	10	1	4	9	12	27	16	20	29	36	101	44	51	58	65	218	372	1,032
VT	37	13	13	13	13	52	18	18	18	19	73	23	24	24	24	94	108	117
WA	1,380	371	381	368	345	1,464	328	327	323	316	1,294	304	313	325	318	1,259	1,265	1,272
WV	0	4	4	4	3	15	3	4	5	7	20	10	12	14	16	52	73	85
Other states	414	127	131	132	135	526	156	162	163	168	648	197	205	206	214	822	1,275	2,378

Source: Official state data, Headset, company reports and Z&A estimates

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Exhibit 2: Sales Trends for 16 MSOs

	CY20	1Q21	2Q21	3Q21	4Q21	FY21	1Q22	2Q22	3Q22	4Q22	FY22	1Q23
SALES												
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
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
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
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
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
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
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
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
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
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
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
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
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
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
Trulieve	521.5	193.8	215.6	224.1	304.9	938.4	317.7	318.5	300.8	302.8	1,239.8	289.1
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

Source: Company reports, and Z&A estimates

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Exhibit 3: Adj EBITDA Margins

	CY20	1Q21	2Q21	3Q21	4Q21	FY21	1Q22	2Q22	3Q22	4Q22	FY22	1Q23
EBITDA MARGIN												
Acreage	-26%	4%	18%	13%	15%	13%	15%	17%	14%	12%	15%	19%
Ascend	21%	24%	24%	25%	22%	24%	19%	21%	25%	25%	23%	20%
AYR	32%	32%	30%	27%	23%	27%	16%	18%	18%	22%	19%	22%
Columbia Care	-11%	4%	11%	23%	-47%	13%	14%	9%	16%	14%	13%	13%
Cresco	13%	20%	22%	26%	26%	24%	24%	23%	20%	15%	20%	15%
Curaleaf	23%	24%	21%	23%	21%	22%	28%	22%	22%	20%	23%	27%
4Front	28%	19%	28%	29%	38%	32%	28%	32%	29%	6%	27%	12%
Green Thumb	32%	37%	36%	35%	31%	34%	28%	31%	32%	31%	31%	31%
Jushi	5%	11%	17%	11%	-7%	7%	-1%	1%	1%	9%	2%	11%
Marimed	32%	33%	43%	38%	6%	35%	33%	27%	25%	17%	24%	21%
Planet13	12%	25%	19%	8%	6%	14%	10%	5%	2%	-3%	3%	3%
Schwazze	-32%	30%	33%	28%	28%	30%	25%	34%	37%	33%	33%	36%
TerrAscend	32%	40%	40%	19%	47%	36%	10%	9%	17%	25%	16%	18%
Tilt	-5%	12%	15%	9%	8%	11%	4%	2%	1%	-1%	2%	0%
Trulieve	50%	47%	44%	44%	33%	41%	33%	34%	33%	34%	32%	27%
Verano	77%	50%	41%	54%	41%	46%	43%	34%	36%	35%	37%	35%

Source: Company reports, and Z&A estimates

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Exhibit 4: Operating Cashflow Before Income Tax Payments

	CY20	1Q21	2Q21	3Q21	4Q21	FY21	1Q22	2Q22	3Q22	4Q22	FY22	1Q23
OCF BEFORE TAX PAYMENT												
Acreage	-95.0	-0.3	-21.0	2.1	-13.3	-32.5	-3.5	-0.7	-6.8	-28.7	-39.7	-6.2
Ascend	-5.6	-3.1	7.8	-17.5	-5.1	-17.9	-10.7	0.9	-0.6	15.3	4.8	3.7
AYR	42.4	-3.8	-1.6	2.8	-3.5	-6.1	0.5	-7.6	-1.3	2.4	-5.9	10.5
Columbia Care	-65.8	6.0	-10.5	-18.7	-3.7	-26.9	-32.4	-21.6	-16.1	-60.0	-130.0	-1.4
Cresco	-0.1	9.3	6.6	-18.8	46.6	43.7	2.2	21.7	21.1	14.8	59.8	50.7
Curaleaf	31.2	-5.8	16.2	45.2	-21.1	34.6	43.3	56.8	71.5	14.8	186.5	2.1
4Front	-8.9	3.7	1.4	-0.6	2.8	7.2	-2.6	0.5	1.1	7.1	6.1	-6.4
Green Thumb	169.1	56.5	68.3	55.8	90.7	271.3	55.2	49.2	78.8	67.3	250.5	82.1
Jushi	9.2	6.9	-5.7	7.6	-4.8	4.1	-53.2	34.9	-7.2	-6.8	-32.3	-2.9
Marimed	5.4	8.0	14.6	14.7	-1.7	35.6	8.6	5.3	4.4	-0.1	18.2	0.8
Planet13	12.9	0.1	7.3	3.8	2.3	13.6	0.0	6.7	2.2	-1.8	7.1	3.0
Schwazze	-10.7	2.2	-0.1	3.7	5.0	10.8	3.6	-4.8	6.9	15.2	21.0	-1.5
TerrAscend	-28.5	10.9	-2.6	1.8	12.7	22.8	-34.3	4.2	-42.4	26.4	-46.1	9.4
Tilt	13.9	3.1	1.0	-8.7	-17.8	-22.4	2.7	-8.3	10.8	5.4	10.6	4.6
Trulieve	200.5	57.6	61.1	67.5	-49.0	137.2	38.2	43.1	25.8	56.4	163.5	48.7
Verano	78.3	16.6	50.8	76.1	35.7	179.2	27.9	62.8	30.2	-19.3	101.6	50.2

Source: Company reports, and Z&A estimates

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Appendix II: Valuation Comps

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Exhibit 5: Valuation Comps – Part I

Company name	Ticker	Listing	7/21/2023 Price US$	Mkt Cap	shares	net (debt)	Ent Value	EV/Sales 1yF	EV/EBITDA 1yF	1yF Estimates (US$ Mn) Sales	EBITDA	EBITDA mgn %	Net debt EBITDA
US MSOs													
4Front Ventures Corp.	FFNTF	US OTC	0.15	94	643	-226	320	2.1x	8.7x	153	37	24%	-6.2x
Acreage Holdings, Inc. Class D	ACRDF	US OTC	0.20	7	34	-215	222	0.9x	4.8x	237	47	20%	-4.6x
Ascend Wellness Holdings LLC Class A	AAWH	US OTC	0.64	119	188	-489	608	1.2x	5.1x	512	118	23%	-4.1x
Ayr Wellness, Inc.	AYRWF	US OTC	1.00	60	60	-577	637	1.2x	4.7x	544	135	25%	-4.3x
Columbia Care, Inc.	CCHWF	US OTC	0.43	168	391	-519	687	1.2x	6.4x	551	107	19%	-4.9x
Cresco Labs, Inc.	CRLBF	US OTC	1.72	484	281	-549	1,032	1.2x	6.2x	828	167	20%	-3.3x
Curaleaf Holdings, Inc.	CURLF	US OTC	3.56	2,220	624	-988	3,207	2.3x	9.0x	1,414	358	25%	-2.8x
Glass House Brands Inc	GLASF	US OTC	3.04	169	56	-59	229	1.2x	12.4x	195	18	9%	-3.2x
GOLD FLORA CORPORATION	GRAMF	US OTC	0.16	17	108	30	-13	-0.2x	0.3x	76	-43	-56%	-0.7x
Goodness Growth Holdings, Inc.	GDNSF	US OTC	0.15	13	87	-124	137	1.4x	7.8x	95	18	18%	-7.1x
Green Thumb Industries Inc.	GTBIF	US OTC	7.12	1,474	207	-358	1,832	1.7x	5.4x	1,108	341	31%	-1.0x
Grown Rogue International Inc.	GRUSF	US OTC	0.19	33	171	-3	37	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A
Jushi Holdings Inc Class B	JUSHF	US OTC	0.47	93	197	-295	388	1.2x	7.2x	316	54	17%	-5.5x
Lowell Farms Inc	LOWFL	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A
MariMed Inc	MRMD	US OTC	0.40	136	341	-26	162	1.0x	3.8x	164	43	26%	-0.6x
Planet 13 Holdings, Inc.	PLNHF	US OTC	0.56	124	220	25	99	0.9x	12.5x	112	8	7%	3.2x
Red White & Bloom Brands, Inc.	RWBYF	US OTC	0.05	21	470	-142	163	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A
Schwazze	SHWZ	US OTC	0.96	53	55	-114	167	0.8x	2.3x	213	74	35%	-1.5x
StateHouse Holdings Inc	STHZF	US OTC	0.03	8	252	-140	148	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A
TerrAscend Corp.	TSNDF	US OTC	1.60	415	260	-216	632	1.9x	9.0x	328	70	21%	-3.1x
TILT Holdings, Inc.	TLLTF	US OTC	0.03	11	334	-102	114	0.6x	20.2x	191	6	3%	-18.2x
Trulieve Cannabis Corp.	TCNNF	US OTC	4.35	695	160	-269	964	0.8x	3.0x	1,174	326	28%	-0.8x
Verano Holdings Corp. Class A	VRNOF	US OTC	2.95	963	327	-414	1,377	1.4x	4.2x	1,007	326	32%	-1.3x
Vext Science, Inc.	VEXTF	US OTC	0.20	16	82	-30	46	0.8x	2.3x	56	20	36%	-1.5x

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

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Exhibit 6: Valuation Comps – Part II

Company name	Ticker	Listing	7/21/2023 Price US$	Mkt Cap	shares	net (debt)	Ent Value	EV/Sales 1yF	EV/EBITDA 1yF	1yF Estimates (US$ Mn) Sales	EBITDA	EBITDA mgn %	Net debt EBITDA
Canada													
Aleafia Health, Inc.	ALEAF	US OTC	0.01	6	403	-34	39	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A
Aurora Cannabis Inc.	ACB	NASDAQ	0.52	181	345	54	127	0.6x	10.7x	196	12	6%	4.6x
Auxly Cannabis Group Inc.	CBWTF	US OTC	0.01	13	906	-132	145	1.3x	68.5x	114	2	2%	-62.2x
Avant Brands Inc	AVTBF	US OTC	0.15	31	206	3	29	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A
BZAM Ltd	BZAMF	US OTC	0.14	21	157	0	21	0.2x	38.7x	111	1	0%	0.0x
Canopy Growth Corporation	CGC	NASDAQ	0.39	202	517	-459	661	2.1x	-4.7x	309	-141	-46%	3.3x
Cronos Group Inc	CRON	NASDAQ	1.87	712	381	874	-162	-1.5x	3.5x	106	-46	-43%	-19.0x
Decibel Cannabis Company Inc	DBCCF	US OTC	0.09	36	405	-34	70	0.6x	2.1x	123	33	26%	-1.0x
Entourage Health Corp	ETRGF	US OTC	0.02	5	307	-91	96	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A
High Tide, Inc.	HITI	NASDAQ	1.24	88	71	-33	121	0.2x	3.7x	525	33	6%	-1.0x
Nova Cannabis Inc	NVACF	US OTC	0.41	24	57	-40	64	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A
OrganiGram Holdings Inc	OGI	NASDAQ	1.35	106	78	73	33	0.2x	3.2x	133	10	8%	7.0x
Rubicon Organics, Inc.	ROMJF	US OTC	0.36	20	56	-1	22	0.4x	2.3x	54	9	18%	-0.1x
SNDL Inc.	SNDL	NASDAQ	1.38	325	235	116	208	0.3x	8.8x	750	24	3%	4.9x
Tilray Brands, Inc.	TLRY	NASDAQ	1.65	879	533	-208	1,087	1.6x	13.6x	679	80	12%	-2.6x
Village Farms International, Inc.	VFF	NASDAQ	0.59	65	110	-49	115	0.4x	29.9x	286	4	1%	-12.8x

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

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Exhibit 7: Valuation Comps – Part III

Company name	Ticker	Listing	7/21/2023 Price US$	Mkt Cap	shares	net (debt)	Ent Value	EV/Sales 1yF	EV/EBITDA 1yF	1yF Estimates (US$ Mn) Sales	EBITDA	EBITDA mgn %	Net debt EBITDA
Service Providers													
AFC Gamma, Inc.	AFCG	NASDAQ	13.12	267	20	-17	284	3.9x	5.2x	72	54	75%	-0.3x
Agrify Corp.	AGFY	NASDAQ	2.73	0	0	54	-53	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A
C21 Investments Inc	CXXIF	US OTC	0.31	37	120	0	37	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A
Chicago Atlantic Real Estate Finance, Inc.	REFI	NASDAQ	15.29	272	18	-52	324	5.2x	#N/A	63	#N/A	#N/A	#N/A
GrowGeneration Corp.	GRWG	NASDAQ	3.62	221	61	23	198	0.7x	88.9x	276	2	1%	10.4x
Hydrofarm Holdings Group, Inc.	HYFM	NASDAQ	1.17	53	45	-165	218	0.7x	25.1x	302	9	3%	-19.0x
Innovative Industrial Properties Inc	IIPR	NYSE	78.70	2,201	28	-14	2,215	7.5x	9.1x	297	244	82%	-0.1x
Leafly Holdings, Inc.	LFLY	NASDAQ	0.30	13	43	-4	16	0.3x	-2.8x	48	-6	-12%	0.6x
NewLake Capital Partners, Inc.	NLCP	US OTC	14.49	310	21	42	268	5.6x	#N/A	48	#N/A	#N/A	#N/A
Power REIT	PW	NYSE America	1.70	6	3	-34	40	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A
RiverNorth Opportunities Fund, Inc.	RIV	NYSE	11.28	208	18	18	190	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A
Scotts Miracle-Gro Company Class A	SMG	NYSE	68.12	3,781	56	-3,183	6,964	1.9x	12.0x	3,718	582	16%	-5.5x
Silver Spike Investment Corp.	SSIC	NASDAQ	8.25	51	6	85	-33	-2.3x	#N/A	15	#N/A	#N/A	#N/A
SpringBig Holdings, Inc.	SBIG	NASDAQ	0.36	10	27	-6	15	0.4x	11.4x	36	1	4%	-4.2x
urban-gro Inc	UGRO	NASDAQ	1.41	15	11	6	10	0.1x	-17.8x	117	-1	0%	-10.2x
WM Technology, Inc. Class A	MAPS	NASDAQ	1.00	92	92	-11	103	0.5x	4.7x	201	22	11%	-0.5x
CBD, Pharma, International													
Cardiol Therapeutics Inc. Class A	CRDL	NASDAQ	0.84	54	64	44	10	#DIV/0!	-0.5x	0	-19	#DIV/0!	-2.4x
cbdMD, Inc.	YCBD	NYSE America	1.41	2	1	3	-1	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A
Charlotte's Web Holdings, Inc.	CWBHF	US OTC	0.24	36	152	9	27	0.3x	-2.8x	83	-10	-12%	-0.9x
Clever Leaves Holdings, Inc.	CLVR	NASDAQ	0.22	10	44	9	1	0.0x	-0.1x	20	-11	-55%	-0.8x
CV Sciences, Inc.	CVSI	US OTC	0.05	7	152	-1	8	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A
Hempfusion Wellness, Inc.	CBDHF	US OTC	0.00	0	100	0	0	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A
IM Cannabis Corp	IMCC	NASDAQ	0.84	6	8	-7	13	0.3x	48.7x	45	0	1%	-25.0x
InterCure Ltd.	INCR	NASDAQ	1.65	75	46	-2	78	0.5x	3.1x	147	25	17%	-0.1x
Jazz Pharmaceuticals Public Limited Compan	JAZZ	NASDAQ	128.09	8,097	63	-4,936	13,033	3.3x	7.0x	3,922	1,856	47%	-2.7x
Little Green Pharma Ltd.	LGPPF	US OTC	#N/A	#N/A	298	0	#N/A	#N/A	#N/A	39	4	10%	0.0x
PharmaCielo Ltd.	PCLOF	US OTC	0.11	18	155	-9	27	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A

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

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Appendix III: Bio and Disclaimers

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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.

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