

2/4/2025

4Q24 Trends in Key States

Cannabis Sector Equity Research



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Summary

Thoughts ahead of the 4Q24 US MSO earnings season.

- In yoy trends, 4Q24 \$ sales declined or were flat in most markets reviewed, with PA and NJ the exceptions (albeit the benefit in NJ is offset by revenue per store dilution). In seq trends, growth has stalled in newly rec markets like CT, MD, and OH. Deflation is still a common theme across the board, with price/mix down as much as 27% yoy in FL (in 4Q24), as per our estimates crossing Headset and OMMU data. Also, while those states adding more stores may boost the wholesale business of MSOs, they tend to dilute retail revenue (in states with caps).
- Still, despite the contraction, retail prices and economics remain rather attractive (vs. the rest of the country) in what we still would call “license-restricted” states (say, IL, MD, OH, PA), and even FL given the mandatory vertical model. Outside FL, we are seeing vertical operators allocate more product to their own stores to protect margins. All this, in a context of companies continuing to find ways to cut costs.
- Although we are not making calls into the 4Q MSO earnings season (Green Thumb kicks it off on 2/26), we are hard pressed to predict meaningful seq sales growth in 4Q24 and see risk of margin compression. In this regard, companies with self-growth initiatives, may be able to offset some of these challenges. Among MSOs that we actively cover, we would note (naming only a few of them here): MRMD adding capacity in MD/IL; Vext and Jushi expanding retail in OH, and Planet 13 in FL; Gold Flora closing in on the #1 position in AIO vapes; Verano’s recent resurgence in FL.
- Beyond sales and EBITDA trends, balance sheet restructuring (and the related dilution risk for equity investors) should become a bigger area of focus as 2025 unfolds. Companies with low debt (and low IRS debt) should re-rate relative to the group, in our view. Yes, on the reg front, to state the obvious, federal level reform will be the main catalyst for the sector (visibility?). At the state level, in terms of reg unlocks, PA is likely the best and most realistic hope (again, relatively speaking) for the MSO group. But in this note, the focus is on underlying markets fundamentals.



Key State Trends

We review states in order of size and contribution to MSO revenues on average.

Florida (\$1.6Bn): The latest Headset data implies Florida's medical cannabis (MMJ) market faces worsening deflationary trends, with price/mix down 27% yoy in 4Q24 (crossing the Headset \$ data and OMMU volumes).

- Market growth trends:
 - Headset points to \$401Mn in 4Q24 sales in FL. In yoy terms \$ sales growth trends worsened (-17% yoy vs. -13% in 3Q24 and +3% in 2Q24). Per Headset, unit volume (not the same as grams) growth accelerated, with 9% yoy growth in 4Q24 vs. +5% in 3Q24 (+9% in 2Q24). In QoQ terms, trends also improved to +3% vs. -2% in 3Q24 (+5% in 2Q24).
 - Per OMMU (the official state data re volumes), during 4Q24 flo volumes reached 1.62mn oz in 4Q24 (+15% yoy) and non-flo 4,765mn mg (+12% yoy). The total number of stores was 702 at YE24 (vs. 653 at end of Jun'24, and 615 at YE23). So, per OMMU, blended volume growth improved seq in 4Q24 to +6% qoq (flo +5%; non flo +7%) vs. +1% in 3Q24 (+3%; -1%). Flo volume per store in 4Q24 was stable yoy at 2.33k oz per store. Non-flo volume per store in 4Q24 of 6.86mn mg per store, was down 3% yoy from 7.06mn.
- Price trends: Crossing Headset and OMMU: We calculate price/mix was down 10% qoq in 4Q24, on top of -13% in 3Q24 and -7% in 2Q24. So, in yoy trends, price/mix would have fallen 27% in 4Q24 yoy after -21% in 3Q24 and -6% in 2Q24 (and stable in 1Q24).
- *Note: We will discuss operator performance in a separate in-depth report. But at a high level, we note Verano flo vol was up 33% qoq in 4Q24 (market +5%), best growth in T-1.*

Illinois (\$2Bn market): With wholesale prices above \$2,200/lb and dispensary revenue per store near \$9Mn pa, IL remains an attractive state vs. several other rec markets in the US. But growth has stalled, and economics have softened, especially for retailers without cultivation.

- Sales: Dec data is not out, but Oct/Nov point to flat yoy \$ sales trends, which would imply >\$510Mn in sales for 4Q24. After yoy growth in the mid-single digits in 1H24, sales in 3Q and 4Q have flattened (yoy). Given the continued increase in the # of stores, we would have expected acceleration in aggregate demand or at least a similar growth trend as in 1H24. All this in the context of IL continuing to underperform other states in per cap spend. With \$2Bn in LTM sales, IL per cap of \$160 is well below other states that began rec after IL (AZ \$170; MD \$190; MO \$225) and MI (\$320), which began rec just one month

before IL. Re product mix, per Headset, flower accounted for 42% of 4Q24 sales and vape for 27% (edibles 12% and pre-rolls 11%).

- Prices and Retailer Spreads: As per the official state source, retailer rec prices for flower averaged \$8.63/gram in Nov'24, down 9% yoy (-30% 2-year stacked) and -4% qoq. Data from Headset and Cannabis Benchmarks point to a similar decline in wholesale prices yoy for 4Q24 (in past qtrs, wholesale had fallen less than retail). Regarding retailer spreads, for flower these fell to \$2.76/gram in 4Q24 (vs. \$3.24 in 4Q23 and \$4.29 in 4Q22). Note: per Headset, 4Q24 flower retail spreads in other states were, NY \$4.72; OH \$3.64; MD \$3.55; MO \$2.84; NV \$2.25; CA \$2.05; MA \$2.05; AZ \$1.88; MI \$1.10 (all \$ per gram).
- Stores: The store count has been increasing at a faster pace than total statewide sales, leading to rev/store dilution. As of 1/3/25, the IL regulator (IDFPR) had issued a total of 242 licenses for adult sales dispensaries vs. 110 at the end of 2023. Of the total 242 licenses issued (21 per 1n people), 132 are part of the social equity license program (of a total 185 to be issued). If we take an average of 236 stores for 4Q24, this equates to \$8.5Mn in annual sales per store, on average – while this is above several rec states, it is well below IL's average of \$17Mn from two years ago.
- Public MSOs in IL: In total, 13 MSOs have operations in the state. In terms of stores, Ascend 10, Curaleaf 10, Verano 10, Cresco 10, Green Thumb 10, MariMed 5, Jushi 4, Acreage 2, AYR 2, Cannabist 2, 4Front 2, Planet13 1.

Pennsylvania (\$1.73Bn LTM): growth accelerating; attractive economics. *Note: the analysis here is partly based on the latest MMAB program update.*

- Sales: As per the official state data, 4Q24 sales reached \$457Mn, up 17% yoy, after 11-12% growth in the first three quarters. The acceleration is counterintuitive given the start of rec sales in OH, the growth in NJ dispensaries, and the consolidation of the MD market. Also, the active patient count is up only 1.6% yoy (440,773 per the latest report of 11/1). It seems recent changes to the PA MMJ program (buying limits, more stores, greater assortment), have helped fuel growth. We calculate PA patients buy \$344 worth of product every month, well above the \$200 average we see in matured med markets.
- Prices: Deflation remains an issue, although it is not as bad as what we see in other states. As per the latest PA DOH report, retail prices in Nov were \$7.73/gram, down 11% yoy and -2% qoq; while the trend is downward, it does point to some stabilization. Indeed, though more volatile, wholesale prices (per PA DOH's report) increased from Aug to Nov (\$2.78/g to \$3.16). As more vertical operators allocate more products to their stores, there is less product available for retailers without production facilities – we think this explains the retailer squeeze per the official data. *Note: all this said, Cannabis Benchmarks, another source points to a 15% drop in wholesale prices in 4Q24.*

- Stores and retailer economics: As of 11/1/24, there were 186 operational dispensaries (vs. 176 a year ago), which makes PA far from dense compared with other states (14 stores per 1mn people). Annualized revenue (taking LTM) per store \$9.3Mn rev/store is above average for states in the east (and even above IL, a rec state), and retailer gross margins (despite the recent “squeeze”) are healthy at ~60% (\$5.5Mn annual gross profit per store). Profitability for vertically integrated retailers (which is the case for most of the MSOs in PA) is greater.
- *MSOs in PA: The largest MSOs in terms of number of stores are Trulieve (20 dispensaries), Curaleaf (18), Green Thumb (18), Verano (18), and Jushi (17). Other MSOs include Acreage, Ascend, AYR, Cannabist, Cresco, TerrAscend, TILT.*

Maryland (\$1.14Bn for LTM): Although total sales are now up 2.4x vs, pre rec days, growth seems to be stalling.

- Sales: Rec sales began on 7/1/23. Total rec+med sales reached \$292.7Mn in 4Q24 (74% rec), up 6% yoy (flat seq) and +2.4x vs. 2Q23 (the last quarter with med sales only). No seq growth in 4Q is somewhat disappointing (given the expected seasonal/holidays lift). That said, per capita consumption at \$192 is well above other rec states like IL, NJ, and CT. As more stores open and assortment grows, we would expect market growth to accelerate. With neighboring states like PA, VA, and WV (DC also helps), remaining med, MD should continue to benefit from out of state traffic (unlike IL, MD does not track the in and out of state shopper traffic flow).
- Prices and retailer economics: Flower retail prices and retailer spreads are down about 10% yoy, but they remain above other rec markets. Per Headset, flower was retailing at \$8.05/gram in 4Q24. Given the cap on total stores and increasing supply, retailer spreads (though down) are well above other states. Headset estimates wholesale flower prices of \$2,016 per pound for MD in 4Q24 (\$4.50/gram), which means retailer flower spreads in MD of \$3.55 per gram (-10% yoy) vs. \$2.76 in IL in 4Q24.
- Stores: The state regulator has issued 101 store licenses. Average annualized revenue per store of >\$11Mn is among the best in the US, and well above that of Illinois. We calculate gross margins at >44%, so this means almost \$5Mn gross profit per store. Companies with vertical operations in MD are in a strong position to benefit both from grower margins as well as retailer margins.

Public MSOs in MD: There are 10 in total (Ascend, Cannabist, Curaleaf, Goodness Growth, Green Thumb, iAnthus, MariMed, TerrAscend, Trulieve, Verano).

Ohio (~\$950Mn run rate annualizing 4Q24): Favorable economics, but the rec market (called non-med for now) is up to a softer start than we had projected, and growth is stalling. We assume the growth pace should accelerate once regs (TBD when) for actual adult rec sales are enacted.

- **Sales:** Total sales (med and non-med) reached \$238Mn in 4Q24 compared with \$196Mn in 3Q24 (non-med sales began on 8/6/24) and \$120Mn in 2Q24 (only med sales then). Yes, the market almost doubled between 2Q and 4Q, but we had expected a much larger jump given OH's med market was underdeveloped (PA's med market is 4x larger than OH's despite similar population). We believe OH has the potential to grow 3-4x vs. its med levels (see our in-depth [OH report from 5/28](#)). But it remains unclear when state officials will approve rec rules (and their exact shape). In the meantime, growth is stalling. The weekly average of \$18.6Mn total sales for the first weeks of 1Q25 would point to 1Q25 sales of \$241Mn (+1% qoq).
- **Prices:** Operator economics are rather attractive. For example, during the week of 2/3/25, retail prices (per the official state source) averaged \$15.18/gram (we realize the official source is well above Headset), almost 2x IL retail prices. Wholesale prices of \$3,100 per pound compare with \$2,200 in IL. Oddly, while retail prices have remained stable since Aug (>\$15/gram), wholesale has come down from \$4,300/lb in mid-Aug'24. The latter means on the margin retailer spreads have widened, while those wholesaling have seen margins drop. Given the growth in the number of stores is likely to be muted until new regs are finalized, we would expect retailer spreads to remain robust.
- **Stores:** By the time of 8/6/24, the state regulator had issued 124 certificates of operations for medical dispensaries (plus another 17 provisional licenses), compared with 72 back in 4Q22. Incumbents will be allowed to open another 80 stores (3 each from the 22 Level I licensees, and 1 each from the 14 Level II licensees) and 50 new store (Level III) licenses will be issued. So, by YE25, OH could have as many as 254 stores. For the time being, with 124, the state is understored at 10.5 stores per 1mn people (IL 19; AZ 21; CA 33; MA 60; MI 98; CO 190). Stores now yield about \$7.8Mn in revenue per annum (above most matured rec markets, but below IL and PA).
- **MSOs in OH:** 13 MSOs have operations there (*Acreage, Ascend, AYR, Cannabist, Cresco, Curaleaf, Green Thumb, Jushi, MariMed, TILT, Trulieve, Verano, Vext*).

New Jersey (\$900Mn): The quickly expanding store count continues to fuel market growth, but revenue per stores has halved (NJ has a cap of 3 stores per operator).

- **Sales:** After growing by 44% in CY23, MJ sales have sustained the pace, with sales up 36% for the Jan-Sep period (rec sales began on 4/21/22 in NJ). The official data is out only thru 3Q24 (\$278Mn total sales in 3Q, with rec at \$258Mn and med the balance); sales up 35% yoy and +3% qoq. The state has yet to issue 4Q sales. In our view, despite more store openings, two years into rec, NJ is underperforming in per cap terms spend (total spend of \$120). To some extent this is due to higher prices and the slow ramp in store openings



(explained by red tape, township pushback, and capital constraints). Also, a large number of towns still do not allow rec dispensaries (80% of townships do not allow rec stores).

- **Stores:** As per the latest NJ CRC report, there are 200 licensed stores selling rec cannabis in the state (48 hybrid med/rec and 152 selling rec only), up from 146 in mid-July, 116 on 4/22/24, and 80 on 1/15/24. So, on average, NJ stores currently yield \$5.2Mn in sales per annum vs. \$11Mn a year ago; but we note incumbents still over index despite erosion (Verano disclosed \$27Mn pa per store for 3Q24, down 50% yoy). There are another 234 in the pipeline based on “conditional to annual conversions” (in total, there are 886 “conditional” retail licenses). NJ could quickly begin to look like MI and MA (re store proliferation), but at present, with 200 stores selling rec, NJ is still understored compared with the more matured markets (21 stores per 1mn people). On the production side, besides 42 active “annual” cultivation licenses”, there are another 101 in the pipeline (“conditional to annual conversions”), plus 358 “conditional” cultivation licenses.
- **MSOs in NJ:** Nine MSOs have operations in the state (Acreage, Ascend, AYR, Cannabist, Curaleaf, Green Thumb, iAnthus, TerrAscend, Verano). Trulieve was recently awarded a cultivation license. Some MSOs have entered agreements with the social equity stores.

Nevada (~\$830Mn LTM): Deflation remains an issue with total \$ sales trends worsening.

- **Sales:** Cannabis sales for the Jan-Sep period (official state data is out only through Sep) were stable in yoy terms, which is an improvement after -8% in CY23 and -17% in CY22. Importantly, this points to double-digit volume growth, given ongoing price deflation. Re 4Q24, Headset projects a 12% yoy decline, but their estimates were off for the first nine months (also pointing to low teens declines).
- **Stores:** As per Nevada’s CCB, there are now 101 licensed dispensaries. While that is up from 75 two years ago, rev/store remains above \$8Mn pa, well above the averages seen in western states. That said, the Planet 13 superstore does \$52Mn pa, so the average for the rest is below \$8Mn.
- **Prices:** Per Headset, retail prices for flower averaged \$4.77 in 4Q24, down 18% yoy (in line with Jan-Sep) and -6% qoq. Interestingly, pricing for vape was down “only” 12%, and prices for other formats were down only in the single digits. Wholesaler flower prices, per Headset, fell 22% yoy in 4Q24; but although down, at ~\$1,200/lb NV wholesale flower prices are the highest among western states. We understand retailers with cultivation in the state, have been allocating more own production to their own stores (PLNH justified its recent store acquisition as a way to allocate more own production to its owned stores and that way capture more margin). As per Headset, retailer flower spreads have dropped from \$3.80 in 1Q22 to \$2.25 in 4Q24.
- **Public MSOs in NV:** AYR, Curaleaf, Green Thumb, iAnthus, Jushi, Planet13, Verano.



Arizona (\$1.14Bn annualized sales pace): Declining sales trends worsening.

- Sales: Official data is out thru November (total sales down 13% YTD); based on Oct/Nov trends, we project 4Q24 to be down 16% after -14% in 3Q24. As we explain below, most of the decline is price driven with volumes mostly stable. Medical sales are now only 18% of the market, but we note that is well above most matured rec states (with no excise taxes for patients in AZ, med sales are 16% less expensive after factoring rec taxes). The implied 4Q24 total sales run rate of \$289Mn is well below the peak of \$365Mn in 2Q21 (and \$359Mn in 2Q22).
- Prices: Deflation is the main driver of the \$ sales decline in AZ, although we note that wholesale prices have dropped more than retail (this is partly explained by the store count approaching the 170 cap). As per Headset, average flower prices in 4Q24 of \$3.38 per gram were down 15% yoy (-5% qoq), while wholesale prices (\$1.88/gram) were down 20% yoy. Still, the flower retail spread of \$1.50 per gram is below most rec markets in the east.
- Stores and retailer economics: There are now 168 dispensaries operating in AZ compared with 143 in Mar'23 and 148 in Jun'23. Density is low (22 stores per 1mn people) vs. other rec states (except for states like CT/NJ) and it equates to a healthy \$7Mn annual rev/store on average. That said, the increase in the number of stores over the last 18 months has pressured retailer economics (less revenue/store and lower spreads than in the past). *Note: In our view, the regs in AZ favor retailer consolidation, as there are no caps on store ownership in the state (but the total licenses are limited at 170); Trulieve and Curaleaf lead with, respectively, 21 and 16 stores (Verano will now have 8 stores after buying 2 from Cannabist).*
- Public MSOs in AZ: Curaleaf (16), iAnthus (4), Trulieve (21), Verano (8 now), Vext (2).

Massachusetts (\$1.83Bn LTM): 3Q24 sales up 1% yoy.

- Sales: 4Q24 sales of \$460Mn (94% rec) were up 1% yoy and down 2% qoq. As with most >5-year rec states, med sales have shrunk (6% of total sales now vs. 23% in 1Q21). We think of MA as a matured market, with little growth momentum now, and deflation an issue, especially at the retail level. All this said, annual per capita spend of >\$260 is among the highest in the US ex Michigan (the outlier >\$300), annualizing the 4Q24 data.
- Retail and wholesale prices: Rec retail prices on average were \$4.44/gram in Dec'24, as per the official state source (40% lower than markets like IL/PA), down 22% yoy, and -7% qoq. Headset also shows deflation, with flower retail prices in 4Q24 of \$4.39 vs. \$5.48 in 4Q23. Per Cannabis Benchmarks, wholesale prices were \$1,095/lb in 4Q24, down 19%. A large private MSO, PharmaCann, recently decided to give up its cultivation lease in MA (see our [NLCP report](#) of 2/4/25).



- Store count and retailer economics. Despite the lack of market growth, the MA regulator keeps adding retail licenses. Close to 600 licenses had been issued (“approved”) as of Dec’24 (up from 516 in April’24), with over 450 operational (for average pa rev/store of \$4Mn). As a result, retailer economics have suffered. Retailer spreads for flower fell to \$2.05/gram in 4Q24 (Headset) vs. \$2.69 in 4Q23 (\$4.55 in 4Q22). We calculate gross profit per store on average at \$2Mn. *Note: MA flower retail prices are 43% below PA, while wholesale prices are “only” 27% below PA. So, if an operator is not vertically integrated in MA, in relative terms, it is better to be a grower than a retailer (compared with PA), and the opposite is true for PA, again, all relatively speaking (if non-vertical).*
- *Public MSOs in MA: 13 MSOs have operations in the state (cap of 3 rec stores).*

Connecticut (~\$296Mn): Growth stalling; per cap spend well below rec states. But prices are above average.

- Sales: Rec sales began on 10 Jan 2023, but this is what we would call an underachieving market, mostly due to red tape and the slow pace of store openings (the large border with MA does not help either). Per the official state data, total rec+med sales reached \$73.9Mn in 3Q24 (72% rec), down 5% yoy (flat qoq), after 0% in 3Q24, and +6% yoy growth in 2Q24. On an annualized basis, this means only \$82 per capita. As we have said before, CT was an underdeveloped med market, and typically those types of markets become 5-6x larger a year after rec sales begin. But in the case of CT, the jump has been less than 2x, almost two years into rec.
- Stores: The CT regulator has issued so far 51 rec retail licenses (up from 28 in Jan’24), of which 27 are med/rec (“hybrid”) and 24 are rec only (there are 2 “med only” stores). While the total number of stores selling rec is up ~2x YTD (27 in Jan’24), on a population of 3.61mn, 43 rec stores equate to only ~14 rec stores per 1mn people (one the lowest store densities in the US). We calculate the state average rev/store at \$6Mn for 4Q24 vs. \$9.8Mn in 1Q24.
- Prices: We do not have retail price data for CT, but Cannabis Benchmarks points to a yoy rise in wholesale prices, from ~\$2,500 a year ago to \$2,800 now. The increase in wholesale prices is likely due to the ramp in stores and the small number of licensed cultivators. As per the state website, retail prices in Sep were \$10.40/gram (well above the rec market average seen in the east), mostly stable vs. Dec’23.
- *MSOs in CT: Acreage, Curaleaf, Green Thumb, Verano, Trulieve.*

California: See our [report from 1/30/25](#) discussing 4Q24 trends and the AIO category, where Gold Flora is now closing in on a #1 position, and has the six best-selling SKUs in the category.

New York. See our [report of 12/19/24](#) discussing overall market trends and top performing brands.

Table 1: Stocks mentioned in this report

Company name	Ticker	Ticker	Rating
US MSOs			
4Front Ventures		FFNTF	not rated
Ascend Wellness		AAWH	will cover
AYR Wellness		AYRWF	not rated
Cannabist		CCHWF	not rated
Cansortium		CNTMF	will cover
Cresco Labs		CRLBF	Overweight
Curaleaf Holdings		CURLF	will cover
GlassHouse Brands		GLASF	not rated
Gold Flora		GRAM	Overweight
Green Thumb Industries		GTBIF	Overweight
Grown Rogue		GRUSF	not rated
Jushi Holdings		JUSHF	Overweight
MariMed		MRMD	Overweight
Planet 13 Holdings		PLNHF	Overweight
Schwazze		SHWZ	will cover
TerrAscend		TSNDF	not rated
TILT Holdings		TLLTF	Neutral
Trulieve Cannabis		TCNNF	not rated
Verano Holdings		VRNOF	Overweight
Vext Science, Inc.		VEXTF	Overweight
Vireo Growth		VREOF	will cover
Finance (MJ) Companies			
AFC Gamma		AFCG	Overweight
Chicago Atlantic BDC		LIEN	will cover
Chicago Atlantic REAF		REFI	Overweight
Innovative Industrial Properties		IIPR	not rated
New Lake Capital Partners		NLCP	Overweight
SHF Holdings		SHFS	not rated

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

Source: Z&A ratings



Appendix I: Valuation Comps

Exhibit 1: MSOs Valuation Multiples

US\$Mn 4-Feb-25	Z&A Spot EV / Sales			Z&A Spot EV / EBITDA			NET DEBT RATIOS				BROADER DEFINITION OF NET DEBT			
							Net Debt/Sales		Net Debt/EBITDA		BDND/Sales		BDND/EBITDA	
	Current	CY25e	CY26e	Current	CY25e	CY26e	Current	CY25	Current	CY25	Current	CY25	Current	CY25
US MSOs	1.4x	1.1x	0.9x	6.7x	5.3x	3.9x								
Ascend Wellness	1.0x	1.0x	1.0x	5.9x	5.0x	4.6x	-0.4x	-0.4x	-2.4x	-2.0x	-0.9x	-0.9x	-5.1x	-4.3x
Ayr Wellness	1.3x	1.2x	1.1x	5.5x	5.1x	4.8x	-0.9x	-0.8x	-3.7x	-3.4x	-1.1x	-1.1x	-4.9x	-4.6x
Cannabist Co	0.9x	0.9x	0.9x	6.9x	5.3x	4.2x	-0.6x	-0.6x	-4.5x	-3.5x	-0.8x	-0.8x	-6.4x	-4.9x
Consortium	1.1x	na	na	3.8x	na	na	-0.5x	na	-1.9x	na	-0.9x	na	-3.1x	na
Cresco Labs	1.3x	1.3x	1.3x	4.7x	5.0x	5.0x	-0.5x	-0.5x	-1.8x	-1.9x	-0.8x	-0.8x	-2.7x	-2.9x
Curaleaf	1.7x	1.6x	1.5x	7.5x	6.4x	5.8x	-0.5x	-0.5x	-2.3x	-1.9x	-0.9x	-0.8x	-3.8x	-3.2x
4Front Ventures	1.9x	na	na	7.2x	na	na	-1.0x	na	-3.9x	na	-1.8x	na	-6.7x	na
Glass House	2.3x	2.8x	2.2x	7.3x	16.5x	10.1x	-0.1x	-0.1x	-0.3x	-0.7x	-0.2x	-0.3x	-0.8x	-1.7x
Gold Flora	1.1x	0.9x	0.8x	12.9x	8.4x	4.8x	-0.3x	-0.2x	-3.6x	-2.4x	-0.9x	-0.7x	-11.0x	-7.2x
Goodness Growth	2.1x	2.1x	na	-122.5x	8.8x	na	-0.5x	-0.5x	29.1x	-2.1x	-0.9x	-0.9x	51.1x	-3.7x
Green Thumb	1.6x	1.5x	1.4x	5.1x	5.1x	4.4x	-0.1x	-0.1x	-0.2x	-0.2x	-0.1x	-0.1x	-0.4x	-0.4x
Grown Rogue	3.1x	na	na	4.1x	na	na	0.2x	na	0.3x	na	0.0x	na	0.1x	na
iAnthus	1.3x	na	na	9.5x	na	na	-1.0x	na	-7.3x	na	-1.0x	na	-7.5x	na
Jushi	1.5x	1.3x	1.2x	8.9x	6.2x	5.5x	-0.7x	-0.6x	-4.0x	-2.8x	-1.2x	-1.1x	-7.4x	-5.2x
MariMed	0.9x	0.8x	0.7x	7.8x	4.5x	3.3x	-0.4x	-0.3x	-3.5x	-2.0x	-0.5x	-0.4x	-4.5x	-2.6x
Planet 13	1.0x	0.9x	0.7x	24.2x	10.2x	5.7x	0.1x	0.1x	3.7x	1.6x	-0.1x	-0.1x	-1.5x	-0.6x
Schwazze	1.1x	1.0x	na	7.8x	3.2x	na	-0.9x	-0.8x	-6.3x	-2.6x	-1.1x	-1.0x	-7.7x	-3.2x
TerrAscend	1.7x	1.7x	1.4x	9.3x	8.3x	5.8x	-0.6x	-0.6x	-3.1x	-2.8x	-1.0x	-1.0x	-5.7x	-5.1x
TILT	1.0x	1.0x	1.0x	-17.9x	88.5x	5.6x	-0.6x	-0.6x	9.9x	-49.0x	-1.0x	-1.0x	17.3x	-85.6x
Trulieve	1.4x	1.3x	1.3x	4.2x	4.0x	3.9x	-0.3x	-0.2x	-0.8x	-0.8x	-0.6x	-0.6x	-1.8x	-1.8x
Verano	1.3x	1.2x	1.1x	4.3x	4.0x	3.7x	-0.4x	-0.4x	-1.4x	-1.3x	-0.8x	-0.7x	-2.5x	-2.4x
Vext	1.7x	1.1x	0.8x	5.4x	4.0x	3.3x	-0.9x	-0.6x	-2.9x	-2.2x	-0.9x	-0.6x	-2.9x	-2.2x

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

Source: FactSet and company reports

4 February 2025

US MSOs: 4Q24 Trends in Key States

Exhibit 2: MSOs EV Calculations

US\$Mn 4-Feb-25	FactSet Spot EV	ZBA Spot EV	US\$ price	mn shares	mn deriv	Total Mkt Cap	Financial net debt	Net leases	Income tax liab.	Conting Cons.	ITM deriv inflow	Total BOND	Pref Stock Min Int
US MSOs													
Ascend Wellness	571	589	0.34	214.5	13.3	77	-241	-134	-137			-512	
Ayr Wellness	616	579	0.48	116.2	3.4	57	-394	-5	-123	0	0	-522	
Cannabist Co	537	410	0.06	472.7	8.2	30	-269	-26	-86			-380	
Consortium	140	118	0.07	304.9	5.6	21	-59	-9	-29			-97	
Cresco Labs	864	968	0.90	441.0	8.9	407	-365	-56	-130	-10		-561	
Curaleaf	1,835	2,250	1.30	743.8	11.2	978	-678	-24	-389	-56		-1,146	126
4Front Ventures	230	150	0.01	915.2	3.8	11	-81	-11	-42	-5	0	-139	
Glass House	381	595	5.46	81.0	3.5	461	-25	0	-4	-32		-61	72
Gold Flora	130	144	0.07	287.7	0.1	21	-40	-34	-44	-4		-123	
Goodness Growth	123	213	0.53	230.3	4.1	124	-51	-10	-29			-89	
Green Thumb	1,865	1,837	6.94	236.2	9.3	1,703	-82	-28	-23	0	0	-133	
Grown Rogue	75	81	0.58	143.5		83	5	-2	-2			1	
iAnthus	41	203	0.01	6,615.3		42	-157	-5				-161	
Jushi	331	366	0.31	196.7	0.0	62	-165	-1	-139			-305	
MariMed	126	145	0.11	381.3	6.7	43	-66	-1	-17			-83	19
Planet 13	91	126	0.36	325.2	0.3	118	19	-7	-16	-5		-8	
Schwazze	172	186	0.00	80.2		0	-151	-2	-33	0		-186	
TerrAscend	387	508	0.55	355.8	3.1	197	-172	-5	-128	-4		-310	
TILT	110	112	0.01	390.6	4.4	4	-62	-44	-2			-108	
Trulieve	973	1,600	4.70	186.0	3.3	890	-300	-21	-384	-5		-710	
Verano	788	1,097	1.22	356.9	8.6	446	-355	-6	-285	-4		-651	
Vext	45	62	0.12	247.4	0.4	28	-33	0				-34	

Source: FactSet and company reports

4 February 2025

US MSOs: 4Q24 Trends in Key States

Exhibit 3: Stock Performance

4-Feb-25	Stock Performance		
	Last	Last	Last
Ticker	30d	90d	12mo
US MSOs			
Ascend	-13%	-60%	-78%
Ayr	2%	-80%	-88%
Cannabist	-5%	-70%	-87%
Consortium	-7%	-55%	-66%
Cresco	-1%	-40%	-62%
Curaleaf	-17%	-56%	-77%
4Front	-15%	-71%	-90%
GlassHouse	-6%	-30%	-13%
Gold Flora	190%	-6%	-76%
Vireo Growth	-5%	19%	18%
Grown Rogue	-12%	-11%	65%
Green Thumb	-15%	-33%	-50%
iAnthus	31%	-29%	-75%
Jushi	1%	-28%	-64%
MariMed	-5%	-32%	-69%
Planet13	-5%	-35%	-56%
Schwazze	-95%	-99%	-100%
StateHouse	na	na	-74%
Trulieve	-9%	-62%	-56%
TerrAscend	-15%	-48%	-74%
Vext	2%	-17%	-59%
Verano	-2%	-64%	-81%

	Stock Performance		
	Last	Last	Last
Ticker	30d	90d	12mo
Canadian LPs			
Aurora	-18%	-37%	-13%
Avant	111%	26%	-74%
Auxly	34%	7%	201%
Cannara	43%	43%	13%
Canopy	-28%	-60%	-61%
Cronos	-9%	-15%	-15%
Decibel	11%	1%	-45%
Entourage	-13%	-41%	-51%
High Tide	-15%	-9%	40%
Nova	MN/A	MN/A	MN/A
OGI	-10%	-16%	-21%
Rubicon	-28%	-15%	-35%
SNDL	-6%	-20%	21%
Tilray	-25%	-40%	-49%
VFF	-6%	-15%	-18%
CBD			
CVSI	30%	-8%	18%
CWEB	7%	-33%	-45%
LFID	-23%	-38%	-83%
International			
InterCure	1%	-8%	18%
PharmaCielo	6%	30%	152%

	Stock Performance		
	Last	Last	Last
Ticker	30d	90d	12mo
MJ Fincos			
AFCG	-2%	-15%	-32%
CNPOF	0%	-43%	-18%
IIPR	8%	-43%	-24%
NLCP	-7%	-13%	-2%
SHFS	8%	20%	-52%
LIEN	-4%	-10%	52%
REFI	-1%	2%	-5%
Tech			
LFLY	-78%	-80%	-92%
SBIG	40%	-36%	-52%
MAPS	-4%	67%	52%
Vape parts			
GNLN	-17%	-50%	-74%
ISPR	-8%	-19%	-57%
SMORF	0%	8%	108%
TLLTF	77%	-21%	-71%
Index			
S&P 500	2%	5%	22%
S&P 477	3%	2%	11%
Nasdaq	6%	10%	43%
MSOS ETF	-11%	-51%	-66%
YOLO ETF	-9%	-32%	-43%

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 @420Odysseus.*



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.

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