U.S. Cannabis 2018 Outlook

BI Tobacco, Global Dashboard



1. U.S. Cannabis Market Is Poised for a Turbulent Year in 2018

Contributing Analysts Diana Rosero-Pena (Consumer Products)

(Bloomberg Intelligence) -- The U.S. cannabis group's performance in 2018 will be affected by a few key trends, most notably the rising threat of greater federal enforcement of the nation's marijuana laws in the states where it has been legalized. More and larger M&A deals involving cannabis companies are shaping the budding industry, which is simultaneously creating newmarket disruptions for many established consumer-goods companies. California became the eighth state to allow legal recreational sales on Jan. 1.

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Canada is also likely to legalize cannabis. Companies with significant exposure to legal medical marijuana sales include Arena Pharmaceuticals, Insys Therapeutics and Cara Therapeutics. Companies serving legal recreational sales include mCig, Pineapple Express and American Cannabis. (01/04/18)

Topics

Performance & Valuation

Rising U.S. Pot Enforcement Threat Doesn't Crimp Long-Term View

The threat of increased U.S. federal enforcement against cannabis-related companies adds risk to state-legal operators, yet large consumer companies aren't being deterred from the long-term opportunity. Shares of companies with exposure to the marijuana industry reeled Jan. 4 on reports of a change in federal policy. (01/04/18)

2. U.S. Cannabis Packager Views Cole Memo Rescission as Immaterial

Kush Bottles Chairman and CEO Nick Kovacevich said on Jan. 16 that he didn't expect U.S. Attorney General Jeff Session's Jan. 4 rescission of the Cole Memo to have any material impact on companies that are operating within their domestic state's legal framework. Further, he stated that the growing state regulation of cannabis is a long-term trend that cannot be stopped "regardless of any temporary policy headwinds created by Jeff Sessions."

California-based Kush Bottles markets packaging products and solutions to customers operating in the regulated medical and recreational cannabis industries. (01/17/18)

Bloomberg Transcript

"Despite this overwhelming public support ... Jeff Sessions is rescinding the Cole Memo, which as many of you are aware laid out guidelines for states to avoid federal interference with their marijuana laws. The Cole Memo was not a federal law, and we do not expect this to make any material impact to companies that are operating within their domestic state's legal framework."

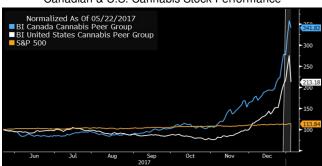
Nick Kovacevich - Chairman & CEO, Kush Bottles Inc. Jan. 16, 2018

Quote located on page 2, click to view entire transcript

3. Threat of Federal Pot Enforcement Reverses Stock Climb

Share prices of U.S. companies directly exposed to the nation's cannabis industry plunged on Jan. 4 on reports that federal enforcement of existing laws will increase. Shares of Canadian companies exposed to U.S. markets declined as well. This reversed triple-digit jumps in shares of marijuana-related stocks in both countries since Constellation Brands' Oct. 30 announcement it will acquire a 9.9% equity stake in Canopy Growth, a leading Canadian grower of cannabis, for about \$191 million.

The BI U.S. cannabis peer group consists of 29 U.S.-based companies directly exposed to cannabis markets. The BI Canada cannabis peer group consists of 24 Canada-based companies directly exposed to cannabis markets. (01/04/18)



Canadian & U.S. Cannabis Stock Performance

4. Cannabis Company Valuations Are Flying High

Valuations of U.S. and Canada-based companies involved with cannabis are elevated based on traditional valuation metrics and range widely. First, many early-stage companies such as Inmed Pharmaceuticals and Marapharm Ventures generate minimal or no revenue. Second, U.S.-based companies with direct cannabis exposure, such as cannabis dispensaries, aren't allowed to deduct operating expenses due to Internal Revenue Code 280E, which prohibits federally illegal enterprises from doing so, limiting their profitability.

The median price-to-trailing 12-month sales ratio for the BI global cannabis peer group was about 79x at year-end, largely reflecting its early-stage industry status, unique accounting treatment in the U.S., and limited number of public entities exposed to the industry. (01/04/18)

BI Global Cannabis Peer Group Valuations

Name	P/Sales↓ TTM	P/Book
Median	79.28	11.32
Cannabis Science Inc	61.26k	
Cannabics Pharmaceuticals Inc	36.69k	78.11
MMJ PhytoTech Ltd	1.32k	3.68
THC Biomed INTL. Ltd	944.41	82.37
MGC Pharmaceuticals Ltd	768.58	6.62
GB Sciences Inc	600.06	15.28
Wildflower Marijuana Inc	586.97	101.82
Cronos Group Inc	473.64	22.25
Supreme Cannabis Co Inc/The	389.03	9.85

5. MJ Holdings' 295% Surge Smokes U.S. Cannabis Group

Shares of MJ Holdings soared 295% in 2017, leading the BI U.S. Cannabis peer group. The company on Dec. 15 acquired Red Earth, LLC, a Nevada entity holding a provisional license to grow marijuana in Las Vegas. MJ's share performance more-than-doubled the 116% median gain for the BI U.S. Cannabis group, and was in notable contrast with an 85% plunge in Grow Condos, which had an accumulated deficit of \$13.9 million on March 31, according to its latest filing. (01/02/18)

U.S. Cannabis Group 2017 Stock Returns

U.S. Threats Buck Public View

Rising Threat of Tougher U.S. Pot Enforcement Bucks Public View

The threat of increased U.S. enforcement against state-legal marijuana operations is in notable contrast to an increasingly more relaxed public sentiment toward its use. This added risk and uncertainty may inhibit new entrants to the cannabis industry. (01/04/18)

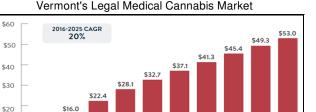
6. Vermont Marijuana Approval Is a Watershed for Fast-Tracking

Vermont's legalization of recreational use of marijuana is a watershed event for the fledging U.S. cannabis industry, because it marks the first state to use the legislative process to authorize the possession and recreational use. Legalization in other states have been through more arduous ballot questions. The law, which goes into effect July 1, allows adults to possess small amounts of marijuana and limited home-growing. States poised to follow Vermont include New Jersey, Rhode Island and New Hampshire.

Vermont's legalization of recreational pot, effective July 1, will make it the ninth state (plus Washington, D.C.) to do so. Medical marijuana sales in the state totaled about \$16 million in 2017, according to New Frontier data. (01/24/18)

MILLIONS

\$10



7. Marijuana Businesses on Uncertain Terrain After New DOJ Policy

Source: New Frontier

\$10.2

Contributing Analysts Holly Froum (Litigation)

The U.S. Justice Department's revocation of a hands-off approach to federal marijuana law enforcement means businesses in states with legal use face an unclear regulatory future. States with legalized recreational use and businesses in those states may lose any legal challenge based on states' rights. The Supreme Court has ruled the DOJ can enforce marijuana laws under the federal commerce clause. Limits on the department's use of federal funds to stop medical marijuana expansion may be raised in legal battles.

Companies Impacted: Companies that may be affected include Canopy Growth, Aphria, mCig, Pineapple Express, MedReleaf and American Cannabis. (01/04/18)

News Release

"In the memorandum, Attorney General Jeff Sessions directs all U.S. Attorneys to enforce the laws enacted by Congress and to follow well-established principles when pursuing prosecutions related to marijuana activities. This return to the rule of law is also a return of trust and local control to federal prosecutors who know where and how to deploy Justice Department resources most effectively to reduce violent crime, stem the tide of the drug crisis, and dismantle criminal gangs."

Justice Department Press Release, Jan. 4, 2018

Click to view entire news release

8. Federal Enforcement of Schedule 1 Pot May Increase

Many states, including California, will surely act to preserve their sovereignty in deciding the legality of marijuana in the face of a federal crackdown signaled Jan. 4 by the U.S. Justice Department. Yet the associated disruption to existing state-legal cannabis operations and potential prosecutions may damp legal marijuana revenue opportunities near-term.

Many advocates of cannabis argue that a reclassification of marijuana to downgrade it from its ranking as a Schedule 1 drug is warranted. Yet, such a development would trigger FDA regulation, introducing complexity and costs to producers. (01/04/18)

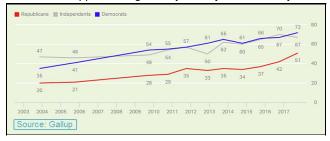
FDA Drug Classification Status



9. Majority of U.S. Republicans Support Legalization

Public support for legalizing marijuana use in the U.S. continues to rise, with 64% now saying its use should be made legal, based on an Oct. 5-11 Gallup poll. It's the highest level of public support Gallup has found for the proposal in almost half a century of measurement. Perhaps as striking is the sudden rise in legalization support among Republicans, which at 51% is up nine percentage points from the prior year. 72% of Democrats supported marijuana legalization in the survey. (11/27/17)

U.S. Support of Legal Marijuana By Political Party



M&A Only Getting Hotter

Groovy Trends for Cannabis M&A May Continue as Deals Get Bigger

Contributing Analysts Diana Rosero-Pena (Consumer Products)

M&A activity for the U.S. cannabis industry has accelerated over the last year and the trend should continue as the sector gains legitimacy. Cash has been the preferred payment method, but more publicly-traded companies are offering stock to support bigger deals. (11/27/17)

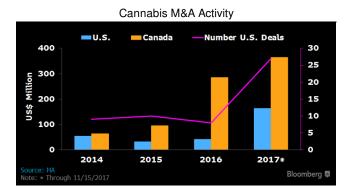
10. U.S. Cannabis M&A Gains Momentum

Contributing Analysts Diana Rosero-Pena (Consumer Products)

M&A activity for the U.S. cannabis industry has accelerated over the last year, portending continued momentum as the sector gains legitimacy and becomes mainstream. Completed or pending deals announced this year through Nov. 15 reached \$164 million, higher than the previous three years combined. In addition, the number of transactions was the highest since 2014. M&A has centered on gaining a foothold in the segment, buying market share and broadening product lines.

Deal activity in Canada rose in the last couple of years, outpacing that of the U.S. In April, the Canadian government announced it plans to legalize the recreational use of marijuana by July 2018, which should support

further M&A activity. (11/27/17)

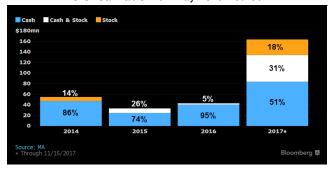


11. Cash Is King for U.S. Cannabis M&A

Contributing Analysts Diana Rosero-Pena (Consumer Products)

Cash has been the preferred payment method for M&A transactions in the U.S. cannabis industry. Yet publicly traded companies are increasingly offering stock to support bigger deals as valuations become loftier. So far in 2017, half of the completed or pending M&A deals in the sector were paid in cash, with the rest using a combination of cash and stock or stock only. This contrasts sharply with 2014, where 86% of the transactions were cash only.

Since 2014, the biggest transaction was Golden Leaf Holdings' acquisition of Chalice for \$39.3 million, completed in mid-2017 with a combination of cash and stock. (11/27/17)



U.S. Cannabis M&A Payment Method

Market Disruption Coming

Rising Cannabis Sales to Disrupt Tobacco, Beverages, Food

The steady increase in legal U.S. cannabis sales will be a rising disruptive force to many established markets such as tobacco, alcoholic beverages and baked goods. Companies within these industries will be increasingly forced to embrace the coming market opportunity or face new competitive pressures. (11/27/17)

12. Alliance One Cannabis Foray May Draw Tobacco Attention

Alliance One's statement that its recent expansion into new segments -- including e-liquids, industrial hemp and cannabis -- represents a step closer for tobacco manufacturers to produce cannabis-based products. Through indirect subsidiaries and recently acquired equity positions, Alliance One now has material exposure to large and

expanding cannabis-growing facilities in Canada. The company derives a large portion of its revenue from Philip Morris International and China National Tobacco. (02/09/18)

Company Press Release

"The combined Canadian cannabis acquisitions are anticipated, subject to regulatory approvals, to have approximately 1 million square feet of production space within a three-year period and with the opportunity to become a truly international cannabis company -- expanding into international markets as anticipated legalization of medicinal and recreational cannabis use progresses around the world."

Pieter Sikkel - President & CEO, Alliance One International Feb. 8, 2018

Quote located on page 1, click to view entire press release

13. Spreading Marijuana Use May Take Bite Out of Beer and Wine Sales

Alcoholic beverage sales fell 15% following the passage of medical marijuana laws in a number of states, based on a study by researchers at the University of Connecticut and Georgia State University. Using retail alcohol beverage sales data across more than 2,000 U.S. counties, the researchers found that states legalizing medical marijuana use experienced a significant decrease in the aggregate sales of alcohol, beer and wine. Reductions were observed up to 24 months after the passage of the law as well.

Cannabis' substitutability for alcohol, as opposed to complementarity, may help allay societal concerns that legalizing marijuana may exacerbate the health and social consequences of alcohol consumption in the form of increased traffic injuries and fatalities, according to the study. (12/07/17)

Statement

"We find that the legalization of medical marijuana reduces alcohol consumption. We find consistent evidence across different specifications and alcohol products (i.e. alcohol in general, beer and wine). States legalizing medical marijuana use experience significant decrease in the aggregate sales of alcohol, beer and wine. Moreover, the effects are not short lived, with significant reductions observed up to 24 months after the passage of the law."

Michele Baggio - Researcher, University of Connecticut, Department of Economics Nov. 1, 2017

Quote located on page 3, click to view entire statement

14. Cannabis-Infused Beverages Soon on Tap

The \$225 billion U.S. alcoholic beverage industry may be disrupted as cannabis-infused beverage sales grow. While they're already in some markets where legal to be sold, large drinks companies may soon begin to sell them nationally. This thesis became evident upon Constellation Brands' October 2017 announcement it will acquire a 9.9% equity stake in Canopy Growth and co-develop THC-infused beverages. Constellation does not plan to sell cannabis products until it's legal at all government levels to do so.

Companies Impacted: Anheuser-Busch InBev, Diageo, Pernod Ricard, Molson Coors, Brown-Forman and Boston Beer are among the leading producers of alcoholic beverage products in North America that may pursue cannabis-infused beverage products. (11/27/17)

Marijuana Legalization Threats and Opportunities



15. Pot Legalization Brings Tobacco Threat, Opportunity

U.S. legalization of recreational marijuana would have big implications for the \$119 billion U.S. tobacco industry. Key opportunities include the potential to leverage tobacco makers' vast manufacturing scale and political influence to the marijuana product market. Threats include a possible drop in cigarette usage, a proliferation of competing vapor devices and THC-liquids, and likely pharmaceutical industry interest in making THC-delivery products. THC is the active narcotic compound in marijuana.

Companies Impacted: Altria Group, British American Tobacco and Imperial Tobacco are the leading producers of tobacco products in the U.S. (11/27/17)

Opportunities Threats Industry leverages cigarette · Proliferation of manufacturing scale, infrastructure to produce competitor e-vapor devices, e-liquids marijuana "cigarettes U.S. Tobacco Cigarette smokers substitute marijuana foi Industry produces tobacco proprietary devices enabling dual usage of marijuana, · Pharmaceutical industry tobacco competitor Source: Bloomberg Intelligenc

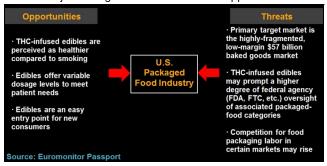
Marijuana Legalization Threats and Opportunities

16. Marijuana Isn't Just for Brownies Anymore

Sales of edible products containing cannabis may reach \$5 billion by 2021, up from about \$1.5 billion in 2017, assuming they continue to account for about 25% of U.S. cannabis sales, according to Brightfield Group. Growth may be led by the low barriers to market entry and the perception that edibles are healthier than smoking pot. The \$57 billion U.S. baked foods segment could be the most disrupted upon a rise in THC-infused edibles consumption.

Companies Impacted: Grupo Bimbo SAB holds the largest share of the \$57 billion U.S. baked goods market with about a 7% share, followed by Flowers Foods (3%) and Kellogg (3%), according to Euromonitor Passport data. The U.S. biscuits and chocolate confectionery markets could also be affected. (11/27/17)

Marijuana Legalization Threats and Opportunities



Legal Challenges to DOJ Move

California, Pot Companies May Challenge DOJ But Will Likely Fail

Contributing Analysts Holly Froum (Litigation)

A potential conflict over federal marijuana-law policy could spark legal battles between the federal government and California and Massachusetts, as well as recreational pot businesses in those states. But a court challenge to the Justice Department's right to enforce federal law will likely fail. (01/08/18)

17. Pot Companies, States May Challenge Policy

Contributing Analysts Holly Froum (Litigation)

California and Massachusetts, as well as recreational pot businesses in those states, may be most likely to raise legal challenges over a change to federal marijuana law policy. Federal prosecutors there indicated support for increased enforcement urged by the U.S. Justice Department, while their state attorneys general indicated opposition. Colorado and its pot businesses may have less reason to raise challenges, since federal officials there suggested no increase in prosecution. (01/08/18)

Reaction of State Attorneys General

States With Legalized Recreational Use	Attorney Generals	Opposes Revocation	Analysis	Conflict with Federal Prosecutor Likely
Alaska	Jahna Lindemuth	Yes	Said Will Continue to Uphold "State" Law*	No
California	Xavier Becerra	Yes	Reportedly Joined Letter Oppostion*	Yes
Colorado	Cynthia Coffman	Yes	Reportedly Opposes Revocation	No
Maine	Janet Mills	Yes	Reportedly Joined Letter Oppostion*	Yes
Massachusetts	Maura Healey	Yes	Issued Statement Opposing Revocation*	Yes
Nevada	Adam Paul Laxalt	No	Supports Revocation	No
Oregon	Ellen Rosenblum	Yes	Issued Statement Opposing Revocation*	?
Washington State	Bob Ferguson	?	?	?
Washington D.C.	Karl A. Racine	Yes	Reportedly Joined Letter Oppostion*	Yes
Notes: *per news reports, 14 State Attorneys General Sent Letter Opposing Revocation Source: Bloomberg Intelligence				

18. Future Legal Challenges Likely to Fail

Contributing Analysts Holly Froum (Litigation)

States and businesses would likely lose any legal challenge to the U.S. Justice Department's change in marijuana law policy. States can't invalidate federal law unless Congress has exceeded its authority. The Supreme Court has ruled Congress has power to regulate cannabis. The federal government can't force states to shut down recreational pot businesses, but federal prosecutors have the power -- and now the mandate -- to do it themselves. A fairness argument by businesses reliant on prior policy likely fails.

Companies that may be affected by heightened enforcement on recreational use include mCig, Pineapple Express and American Cannabis. (01/08/18)

Key Points:

- Challenge to Federal Right to Regulate Likely Fails
- Reliance Arguments by Businesses Likely Fail

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