AN INVESTORS PERSPECTIVE ON LEGAL CANNABIS: TOO BIG TO IGNORE

Roy Bingham | BDSA

Jefferies Cannabis Summit
June 2022
LEGAL CANNABIS IS...

Everyone


Rapid Innovation

Mainstream
HOWEVER, IT IS ALSO . . .

Confusing

Different than “CPG”

Challenged

Financial Stress
BDSA PROVIDES A COMPLETE VIEW OF THE GLOBAL CANNABIS MARKET OF TODAY AND TOMORROW

RETAIL SALES TRACKING
Know exactly what is selling where, when, and at what price point

MARKET FORECASTS
Gain a comprehensive understanding of market size and future opportunity

CONSUMER INSIGHTS
Understand consumer (and non-consumer) segments, sizing, behavior, consumption patterns, purchase habits, and more
HISTORICAL GROWTH OF LEGAL CANNABIS
PAST GROWTH WAS DRIVEN INITIALLY BY US MEDICAL, THEN ADULT-USE MARKETS

BDSA Global Legal Cannabis Sales (USD, Billions)

- **2017**: $8
  - Medical markets make up the bulk of sales

- **2018**: $9
  - California launches Adult-Use

- **2019**: $12
  - Mature AU markets (CA, CO) and New Medical Markets drive sales growth

- **2020**: $18

- **2021**: $24

Source: BDSA Forecast, Historical Global sales, updated February 2022
DESPITE SHARP DECLINES IN CANNABIS STOCKS, LEGAL MARKETS STILL HOLD HUGE POTENTIAL

Source: New Cannabis Ventures, Historical Global Cannabis Stock Index as of May 2022
CONSUMER PENETRATION HAS RISEN ~15% SINCE 2018

Source: BDSA Consumer Research: 1H 2018-2H 2021 U.S. Adults 21+ in Legal Level 1 States
IN FULLY LEGAL STATES, ~75% OF ADULTS ARE “BOUGHT IN” TO CONSUMING

...of adults 21+ in fully legal U.S. states consumed cannabis in the past 6 months or are open to consuming cannabis

66% in CANADA

73% of adults 21+ in legal U.S. states are Consumers® or Acceptors®

27% are Rejecters® (would not consider in the future)

Source: BDSA Consumer Research: Fall 2021 U.S. Adults 21+ in Legal Level 1 States
SHARE OF REJECTERS HAS STEADILY FALLEN, DOWN ~10% SINCE 2018

Source: BDSA Consumer Research: 1H 2018-2H 2021 U.S. Adults 21+ in Legal Level 1 States
CURRENT STATE OF THE INDUSTRY
2021 SAW SUBSTANTIAL GROWTH

Source: BDSA Retail Sales Tracking 2020 vs. 2021
GLOBAL MARKET ($61B) DRIVEN BY US; US DRIVEN BY ADULT-USE

BDSA US Legal Cannabis Forecast (USD, Billions)

Source: BDSA Forecast, as of February 2022

BDSA Top 2026 US Markets:
1. California
2. New York
3. New Jersey
4. Florida
5. Michigan
THE NORTHEAST IS SLATED TO PROVIDE HUGE REVENUE OPPORTUNITY

Four densely populated states in NE expected to be combined ~$9B opportunity by 2026

Source: BDSA Forecast, as of February 2022, US Census Bureau 21+ Adult Population 2020
### TRI-STATE REGULATION & IMPLICATIONS

- License prioritization will likely lead to more fragmentation early on.
- Delays in all market launches expected.
- Markets will struggle with supply during ~6-12 months of roll-out.
- Expect higher prices like IL and MA.
- Most brands will perform well early on and delays on who are the dominant market leaders.
- Markets will require indoor cultivation so higher prices than outdoor-viable markets.
- Tighter regulations on cultivators due to indoor cultivation.

<table>
<thead>
<tr>
<th></th>
<th>New York</th>
<th>New Jersey</th>
<th>Connecticut</th>
</tr>
</thead>
<tbody>
<tr>
<td>Retail Opens</td>
<td>Early 2023</td>
<td>April 22</td>
<td>Before end of 2022</td>
</tr>
<tr>
<td>Home Cultivation</td>
<td>6 plants</td>
<td>None</td>
<td>7/1/23 - 6 plants / person; 12 plants / household</td>
</tr>
<tr>
<td>Weight Limits</td>
<td>3 oz flower, 24 grams concentrate</td>
<td>1 oz</td>
<td>up 6.5 oz cannabis or equivalent amount concentrates</td>
</tr>
<tr>
<td>Consumer Sales Tax</td>
<td>9% state, 4% local</td>
<td>7%</td>
<td>~20% (6.35% state, 3% municipal, ~10 - 15% of sale / THC content)</td>
</tr>
<tr>
<td>License Prioritization</td>
<td>Minority / women-owned businesses, applicants from communities disproportionately impacted by cannabis enforcement, distressed farmers, service-disable Vets</td>
<td>Minority / women-owned businesses, businesses located in &quot;economically distressed areas&quot;</td>
<td>Reserve 50% of applications for eligible license types for &quot;social equity applicants&quot;</td>
</tr>
<tr>
<td>Cultivator License Caps</td>
<td>None - but individuals can’t hold retail license or distribution license</td>
<td>37 (expires 02/23)</td>
<td>None - but applicants can only get approval for one license type</td>
</tr>
</tbody>
</table>

Source: BDSA
Pennsylvania - Med Today, Adult Use Tomorrow?

If as predicted the state goes adult-use it would bring legal cannabis access to another 10M US adults

<table>
<thead>
<tr>
<th>Registered Patients</th>
<th>% CHG vs. 2021</th>
</tr>
</thead>
<tbody>
<tr>
<td>406,454</td>
<td>26.8%</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Per Month</th>
<th>Per Trip</th>
</tr>
</thead>
<tbody>
<tr>
<td>$117</td>
<td>$100</td>
</tr>
</tbody>
</table>

Pennsylvania Medical Cannabis Monthly ($) Sales, April '21 - March '22

<table>
<thead>
<tr>
<th>Format Trends</th>
<th>Past Three Months vs. Prior</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Oct-Dec 2021</td>
</tr>
<tr>
<td>All Accessories</td>
<td>$2.39</td>
</tr>
<tr>
<td>Pills</td>
<td>$5.5</td>
</tr>
<tr>
<td>Tinctures</td>
<td>$6.77</td>
</tr>
<tr>
<td>Dabbable Concentrates</td>
<td>$43</td>
</tr>
<tr>
<td>Vape</td>
<td>$109.2</td>
</tr>
<tr>
<td>Flower</td>
<td>$142</td>
</tr>
<tr>
<td>Topicals</td>
<td>$2.05</td>
</tr>
</tbody>
</table>

Top reasons for consuming:
- Relieve Pain: 20%
- Manage Anxiety: 16%
- Sleep Better: 8%

Q1 2022 Sales: $290M

# brands w/ Sales: 115

# retailers selling: 161

Source: BDSA Retail Sales Tracking - Pennsylvania (Medical), Jan-Mar 2022; BDSA Consumer Insights – Pennsylvania Fall 2021
HOW BIG OF AN OPPORTUNITY IS LEGAL CANNABIS?
IN THE US, 2021 GROWTH AND BDSA’S 2022 EXPECTATIONS COMING FROM MATURE, NEW, AND EMERGING MARKETS

**MATURE** cannabis markets were early movers in legal cannabis, had long established medical programs, and are still seeing strong growth.

**NEW** Adult-Use and Medical markets that are more recent entries and have established industries and are developing at an ever-increasing rate.

**EMERGING** cannabis markets have recently legalized, and are expected to yield huge contributions to BDSA’s forecasted market growth out to 2026.

<table>
<thead>
<tr>
<th>MATURE</th>
<th>NEW</th>
<th>EMERGING</th>
</tr>
</thead>
<tbody>
<tr>
<td>markets were early movers in legal cannabis, had long established medical programs, and are still seeing strong growth</td>
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<td>cannabis markets have recently legalized, and are expected to yield huge contributions to BDSA’s forecasted market growth out to 2026</td>
</tr>
<tr>
<td>Colorado</td>
<td>Illinois</td>
<td>New York</td>
</tr>
<tr>
<td>California</td>
<td>Massachusetts</td>
<td>New Jersey</td>
</tr>
<tr>
<td>Oregon</td>
<td>Michigan</td>
<td>Connecticut</td>
</tr>
<tr>
<td>Washington</td>
<td>Pennsylvania</td>
<td>Ohio</td>
</tr>
</tbody>
</table>
NOT SURPRISINGLY, THE US REMAINS THE LARGEST GLOBAL LEGAL MARKET

BDSA Global Legal Cannabis Forecast (USD, billions)

Source: BDSA Forecast, as of February 2022
TOP TEN CONTRIBUTORS TO GLOBAL GROWTH

BDSA Legal Cannabis Forecast (USD, Billions)

2021: $28.8
- Germany: $2.9
- California: $2.8
- New York: $2.7
- Mexico: $2.2
- New Jersey: $2.0
- Florida: $1.6
- Ontario: $1.3
- Michigan: $1.0
- Ohio: $1.0
- British Columbia: $0.4

2026: $61.4

Source: BDSA
CALIFORNIA CONTINUES TO DRIVE THE US MARKET BUT........

Source: BDSA Forecast, as of February 2022
CONSUMER ADOPTION GREW IN 2021, AND CONSUMPTION IS ACROSS MORE FORMS AND MORE FREQUENTLY

Preferred Consumption Form

<table>
<thead>
<tr>
<th></th>
<th>Level 1</th>
<th>Level 2</th>
<th>CAN</th>
</tr>
</thead>
<tbody>
<tr>
<td>2H 2020</td>
<td>10%</td>
<td>10%</td>
<td>9%</td>
</tr>
<tr>
<td></td>
<td>33%</td>
<td>28%</td>
<td>36%</td>
</tr>
<tr>
<td></td>
<td>57%</td>
<td>61%</td>
<td>54%</td>
</tr>
</tbody>
</table>

Source: BDSA Trending Consumer Insights, 2H 2020 vs. 2H 2021
What if regulation wasn’t a factor?

Top 15 States by Population
Total Population 21+

Texas has second highest total addressable market

Untapped population

Source: BDSA Forecast, as of February 2022

Top 10 state by 2026

Regulation hindering growth
KEYS TO CANNABIS INVESTMENT: CONSUMERS
CONSUMERS RELY ON CANNABIS FOR PHYSICAL AND EMOTIONAL BENEFITS

Global Pain Relief Market: US$ 72.4B in 2021
- Relieve Pain 14%
- Sleep Better 10%
- Relax/Be Mellow 9%
- Manage Anxiety 9%
- Manage Stress 6%
- Get ‘High’ Or ‘Stoned’ 5%
- Improve Quality of Life 4%
- Have Fun 4%
- Feel Peaceful 4%

Global Sleep Aid Market: US$ 59.8M in 2020
- Sleep Better 10%
CONSUMERS SEEK DIFFERENT BENEFITS BY FORM FACTOR

RELAX / BE MELLOW
#1 reported benefit of consumption for Inhalable consumers

RELIEVE PAIN
#1 reported benefit of consumption for Topical consumers

SLEEP BETTER
#1 reported benefit of consumption for Edible consumers

Source: BDSA Consumer Research: 2H 2021 U.S. Adults 21+ in Legal Level 1 States
THE LONG-TERM IMPACT IS INEVITABLE

Cannabis consumers are consuming less alcohol, while alcohol consumers are consuming more cannabis, both at the same time and separately.

- **Q1 2021 Alcohol & Cannabis Consumption**
  - Past 6 months in Legal Adult-Use States

**Cannabis Consumers**

- 66% Of Cannabis consumers also consumed Alcohol
  - Down from 67% in Q4 2020

**Alcohol Consumers**

- 56% Of Alcohol consumers also consumed Cannabis
  - Up from 49% in Q4 2020

*Source: BDSA Consumer Research: Q4 2021 U.S. Adults 21+ in Legal Level 1 States*
THERE IS NO ONE CANNABIS CONSUMER

Cannabis Consumers Span:
• Generations
• Gender
• Socio & Economic Backgrounds
• Motivations
• Need States
• Benefits
• Premium / Luxury / Economy
CANNABIS ROUTE TO MARKET
OVERSIMPLIFICATION OF COMPLEX LICENSING; DIFFERENT BY STATE

Cultivation → Manufacturer → Distribution → Retail
FORCED VERTICAL INTEGRATION: TRULIEVE IN FLORIDA

Cultivation ➔ Manufacturer ➔ Distribution ➔ Retail
MANUFACTURER + DISTRIBUTION: KIVA/KSS IN CALIFORNIA
DISTRIBUTOR ONLY: HERBL IN CALIFORNIA

Cultivation  Manufacturer  Distribution  Retail
TOP CANNABIS TRENDS FOR INVESTORS: CONSOLIDATION AND MULTI-STATE BRANDS
HOW BIG IS THE INFLUENCE OF MULTI-STATE OPERATORS IN CANNABIS?

WHAT THEY ARE
• MSOs are cannabis companies that span across multiple legal cannabis states. The ones you hear about are powerhouses in brands and retail

HOW THEY ARE CHANGING THE CANNABIS LANDSCAPE
• They are large organizations established to expand geographical footprint of brands, products, and retail
• 6 of the top 10 leading cannabis brands tracked by BDSA are owned by MSOs. They are dominating top brands in new markets such as Illinois and Massachusetts and are gaining share in mature markets such as California.
• More and more they are becoming the first entrants into up-and-coming states, either through expansion or M&A

Source: BDSA US Retail Sales Tracking
**VERTICAL/RETAILER DOMINANCE**

Store brands (unbranded) or brands associated with a vertically-integrated retailer or MSO have dominance – especially in less-mature markets.

**Flower Brand Distribution by Market: Full Year 2021**

Total Flower Sales across AZ, CA, IL, MD, MA, NV, OR: $4.5B

<table>
<thead>
<tr>
<th>Market</th>
<th>Size of Market (Indexed to CA)</th>
<th>Total # of Brands</th>
<th>% Sales Branded</th>
<th>% Sales Unbranded (Store Brand, Not Wholesaled)</th>
<th>OF BRANDED: # of Top 5 that are MSO/Vertical Brands</th>
</tr>
</thead>
<tbody>
<tr>
<td>AZ</td>
<td>41</td>
<td>61</td>
<td>51%</td>
<td>49%</td>
<td>3</td>
</tr>
<tr>
<td>CA</td>
<td>100</td>
<td>536</td>
<td>75%</td>
<td>25%</td>
<td>1</td>
</tr>
<tr>
<td>IL</td>
<td>46</td>
<td>36</td>
<td>94%</td>
<td>6%</td>
<td>5</td>
</tr>
<tr>
<td>MD</td>
<td>18</td>
<td>34</td>
<td>90%</td>
<td>10%</td>
<td>4</td>
</tr>
<tr>
<td>MA</td>
<td>46</td>
<td>56</td>
<td>59%</td>
<td>41%</td>
<td>5</td>
</tr>
<tr>
<td>NV</td>
<td>31</td>
<td>108</td>
<td>61%</td>
<td>39%</td>
<td>2</td>
</tr>
<tr>
<td>OR</td>
<td>36</td>
<td>408</td>
<td>52%</td>
<td>48%</td>
<td>1</td>
</tr>
</tbody>
</table>

Younger markets show denser brand concentration given MSO and Vertical presence, while Western (and more mature) markets are more fragmented.
### BDSA TOP MSOS & BRANDS

#### Brands

<table>
<thead>
<tr>
<th>Massachusetts*</th>
<th>Pennsylvania*</th>
<th>Missouri</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rythm</td>
<td>Cresco</td>
<td>Proper Cannabis</td>
</tr>
<tr>
<td>Cultivate</td>
<td>Rythm</td>
<td>Illicit Gardens</td>
</tr>
<tr>
<td>INSA</td>
<td>Grassroots Cannabis</td>
<td>Flora Farms</td>
</tr>
<tr>
<td>Sira Naturals</td>
<td>Moxie Seeds and Extracts</td>
<td>Sinse</td>
</tr>
<tr>
<td>Ozone Premium Cannabis</td>
<td>Double Bear</td>
<td>C4 Pharms</td>
</tr>
</tbody>
</table>

#### MSOs

<table>
<thead>
<tr>
<th>GTI</th>
<th>Cresco Labs</th>
<th>Terrapin</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cresco Labs</td>
<td>GTI</td>
<td>Wana Edibles</td>
</tr>
<tr>
<td>Ayr</td>
<td>Curaleaf</td>
<td>StateHouse Holdings</td>
</tr>
<tr>
<td>Insa</td>
<td>Terrapin</td>
<td>Curaleaf</td>
</tr>
<tr>
<td>MariMed</td>
<td>Moxie Seeds and Extracts</td>
<td>Timeless Vapes</td>
</tr>
</tbody>
</table>

*Source: BDSA Retail Sales Tracking - Massachusetts (Adult-Use + Medical); Pennsylvania (Medical), Q1 2022*
THE LARGEST FIRMS CONTINUE TO TIGHTEN THEIR GRIP

And with inter-industry M&A consolidation continuing at rapid pace, fewer in the future will control majority share of US retail sales.

TOP 25 PARENT COMPANIES BY BDSA TRACKED RETAIL SALES (YTD 2022)

- **254 BRAND HOUSE BRANDS**
- **2,211 TOTAL BRANDS**
- **2021 YTD SHARE OF SALES**: 56% (+17% vs. Prev. Period)
- **2022 YTD BRAND HOUSE SALES**: $1.9B

Source: BDSA – Retail Sales Tracking – Brand House January 2022 – March 2022 AZ, CA, CO, IL, MA, MD, MI, MO, NV, OR, PA
MARKET TRAJECTORY SIGNALS THAT THE BIG WILL CONTINUE TO GET BIGGER

Number & size of transactions continued to increase in 2021 - exceeding values in 2020 & 2019

306

2021 M&A TRANSACTIONS

VS.

86

2020 M&A TRANSACTIONS
(SAME PERIOD)

209

2021 US M&A TRANSACTIONS YTD

$10.1B

TOTAL US CONSIDERATION

Source: Viridian Capital Advisers Deal Tracker – Jan-Dec, 2021
INVESTING IN CANNABIS THE “RIGHT WAY”: WINNING PRODUCTS AND BRANDS
**CATEGORIES: WHAT FORMATS ARE WINNING?**

**Dollar Share by Category Q1 2022**

- **Concentrates (Including Vapes):** 33%
- **Edibles:** 38%
- **Flower:** 14%
- **Pre-Rolled:** 9%
- **Other:**

**Q1 2022 Growth vs. Q1 2021**

- **Concentrates (Including Vapes):** +11%
- **Edibles:** +13%
- **Flower:** -5%
- **Pre-Rolled:** +19%

*Source: BDSA Retail Sales Tracking; Growth reflected across AZ, CA, CO, FL, IL, MA, MD, MI, MO, NV, OR*
US EDIBLES DOMINATED BY CANDY, DRIVEN BY GUMMIES

Dollar Sales Spend Edibles Category

- CANDY
  - Gummie Candy 89%
  - Taffy 5%
- Beverages
- Candy
- Chocolates
- Culinary
- Infused Foods
- Other Edibles
- Pills

2021 Total Edibles $
Growth vs. 2020

Source: BDSA Sales Tracking, Full year 2021 Dollar Sales: AZ, CA, CO, OR, NV, MD, MA, MI, MO, IL, FL, PA

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## PRICE COMPARISONS BY MARKET

BDSA expects new adult-use markets in NE to have higher prices relative to those observed in IL & MA

<table>
<thead>
<tr>
<th>State</th>
<th>Concentrates</th>
<th>Edibles</th>
<th>Flower</th>
<th>Pre-Rolled</th>
<th>Shake</th>
<th>Sublinguals</th>
<th>Topicals</th>
</tr>
</thead>
<tbody>
<tr>
<td>California</td>
<td>$31.71</td>
<td>$17.08</td>
<td>$6.95</td>
<td>$16.90</td>
<td>$2.71</td>
<td>$40.94</td>
<td>$28.60</td>
</tr>
<tr>
<td>Colorado</td>
<td>$24.94</td>
<td>$17.42</td>
<td>$4.11</td>
<td>$7.79</td>
<td>$2.06</td>
<td>$25.65</td>
<td>$28.89</td>
</tr>
<tr>
<td>Illinois</td>
<td>$49.07</td>
<td>$23.59</td>
<td>$12.24</td>
<td>$22.91</td>
<td>$8.50</td>
<td>$33.08</td>
<td>$39.47</td>
</tr>
<tr>
<td>Massachusetts</td>
<td>$48.54</td>
<td>$19.48</td>
<td>$11.42</td>
<td>$14.62</td>
<td>$6.03</td>
<td>$49.29</td>
<td>$34.93</td>
</tr>
<tr>
<td>Michigan</td>
<td>$26.97</td>
<td>$10.61</td>
<td>$6.10</td>
<td>$10.58</td>
<td>$5.30</td>
<td>$32.56</td>
<td>$20.80</td>
</tr>
<tr>
<td>Nevada</td>
<td>$26.14</td>
<td>$17.51</td>
<td>$7.17</td>
<td>$12.09</td>
<td>$3.95</td>
<td>$34.99</td>
<td>$37.01</td>
</tr>
<tr>
<td>Oregon</td>
<td>$22.01</td>
<td>$8.70</td>
<td>$4.68</td>
<td>$8.11</td>
<td>$1.95</td>
<td>$35.50</td>
<td>$34.19</td>
</tr>
</tbody>
</table>

Shading denotes Highest / 2nd Highest Price per category

Source: BDSA Retail Sales Tracking – Average Retail Price – Q1 2022
WINNING BRAND TRENDS
Q1 2022 TOP SELLING ($) BRANDS (AZ, CA, CO, IL, MA, MD, MI, MO, NV, OR, PA)

1. RYTHM (Green Thumb)
2. CRESCO CANNABIS (Cresco Labs)
3. STIIIZY (Shryne Group)
4. SELECT (Curaleaf)
5. WYLD

Source: BDSA RETAIL SALES TRACKING 2021—AZ, CA, CO, IL, MA, MD, MI, MO, NV, OR, PA
FOCUSING ON MOST POPULAR FORM FACTORS: A WINNING BRAND STRATEGY

Stiiizy
+96%
Vape $ 2020 vs. 2021

#1 VAPE BRAND ACROSS BDSA TRACKED MARKETS
26% OF VAPE $ Sales in CA for Q1 2022
Next closest at 12%

Source: BDSA 2020-2021 Retail Sales Tracking
ANOTHER WINNING BRAND WITHIN A SMALLER SUBCATEGORY: 1906

PILLS: 1906

+39%

Pills $ 2020 vs. 2021

#1 PILL BRAND

31% OF PILL $ Sales in Q1 2022

Next closest at 10%

Source: BDSA 2020-2021 Retail Sales Tracking
WHAT SHOULD WE EXPECT IN 2022?
**BDSA FULL YEAR 2022 PREDICTIONS**

1. **Classification (indica, sativa, hybrid) will fade away as a designation of the consumer experience** – cannabinoid content and terpene driven benefits are the way of the future

2. Brand recognition will grow, and dare we say, **brand loyalty** will emerge

3. More blatant quality cues will drive **greater pricing differentiation**

4. The race for **global cannabis dominance** is well on its way – but traditional CPG will not lead the way

5. The FDA will continue to limit the potential of the **mainstream CBD market** (indefinitely?)

6. **Vape will continue to survive** (and thrive) despite reputational hits
WHAT ABOUT FEDERAL LEGALIZATION?

BDSA DOES NOT PREDICT FEDERAL LEGALIZATION BEFORE 2026, BUT AS ACCEPTANCE AND CONSUMPTION OF CANNABIS GROW, SMALLER REFORMS ARE MORE LIKELY

- The SAFE Banking Act, or similar legislation
- Passage of decriminalization at the Federal level
- Reforms regarding IRS Code 280E

Source: BDSA
CPG WILL BE SIDELINED IN US UNTIL FEDERAL REFORM, BUT ALC/BEV AND TOBACCO ARE FINDING A PLACE IN THE CBD SPACE

Strategic investments, joint ventures, and partnerships with beverage alcohol and tobacco subsidiaries by way of Canada are notable exceptions offering these firms a way into the US market through M&A post-federal reform.
IT’S A NEW GAME.

DATA. DEEPER.

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