



Cutting Through the Smoke Valuation in the Age of Cannabis and Cryptocurrency

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Outline

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 - Price v. FMV
 - Valuation Principles
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- **Valuation of Cannabis Companies**
 - Valuation Considerations
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- **Valuation of Cryptocurrencies and Blockchain Enterprises**
 - Crypto Assets
 - Blockchain Technology Companies

Valuation Refresher: Review – FMV v. Price

Fair market value

- The **highest price**, expressed in terms of **cash** and cash equivalents, at which property exchanges hands between a **hypothetical willing and able** seller and hypothetical willing and able buyer, acting at **arm's length** in an **open and unrestricted market** when **neither party has a compulsion** to buy or sell and both have **reasonable knowledge** of the relevant facts.

Price

- The only true way to determine the price achievable for a business is to **expose it to the open market** and negotiate a transaction with another party

Valuation Refresher: Valuation Principles

- **Point** in time
- Value is **prospective** (i.e. not what the company DID, but what the company will DO)
- Value is a function of prospective **cash flow** (unless liquidation value is higher)
- Value is influenced by **underlying net tangible assets** (concept of risk and return)
- Commercial and non-commercial value are distinct concepts (Personal goodwill is **not transferable**)
- Value is influenced by **liquidity**
- The value of a **minority interest** may be **worth less** than the value of a controlling interest on a per share basis

Valuation Refresher: Valuation Approaches

Is the Business Enterprise a viable, operating entity?

Yes

Going Concern Approach

Income Approach:

- Discounted cash flow
- Capitalized cash flow / earnings

Market Approach

- EBITDA/EBIT Multiple
- Other multiples / rules of thumb

Cost Approach:

- Reproduction Cost
- Replacement Cost

No

Liquidation Approach

Asset-Based Approach

- Valuation of each asset/liability
- Orderly vs. forced

Valuation of Cannabis Businesses

Diversified Businesses in the Cannabis Sector

- **Cultivation, Production and Distribution and Sale** (licensed producers, dispensaries and stores, etc.)
- **Life Sciences** (pharmaceuticals, clinical drug development, biotechnological R&D)
- **Speciality Finance** (royalty companies, REITs and property holding companies)
- **Technology** businesses (data analytics, E-Vaporizers, etc.)

Valuation Considerations: Asset Approaches

Going concern asset based valuation approach

- **Value in use** (assets and liabilities valued at fair market and economic values)
 - Businesses with **significant tangible assets** (property holding companies that own real estate and capital equipment)
 - Operating companies with **no intangible value**

Net liquidation value asset based valuation approach

- **Orderly or Forced** realization of the underlying assets
 - Consideration of **liquidation and other costs**

Valuation Considerations: Market Approaches

Guideline Public Company Method

- Consider **comparability** of public company to the subject cannabis business (i.e. size, depth of management, capital structure, ability to borrow, product/geographical diversification)

Comparable Precedent Transactions Method

- Consider **comparability** (i.e. extent of special purchaser premiums)
- Use of **past dated** transactions and **a limited small sample** of actual reported transactions in an **emerging** industry

Market Approaches – Trading Multiples

Trading Multiples Select Publicly Listed Cannabis Companies

	Industry Average	Aurora Cannabis	Cronos Group	CannTrust Holdings	Aphria	Golden Leaf Holdings	Canopy Growth	Tilray
Per share data (\$)								
Earnings (TTM)	(0.18)	(0.03)	0.01	0.20	0.20	(0.15)	(0.71)	(0.28)
Book Value	2.79	0.60	0.58	0.78	5.54	0.05	5.81	(0.05)
Cash Flow (TTM)	(0.20)	(0.03)	0.02	0.25	0.22	(0.16)	(0.61)	(0.24)
Valuation								
Price / Earnings	714.6 x	NM	2,105.5 x	51.2 x	80.0 x	NM	NM	NM
Price / Revenue (TTM)	176.8 x	206.3 x	314.5 x	39.4 x	103.2 x	10.3 x	150.7 x	203.2 x
Price / Book (MRQ)	6.9 x	3.6 x	9.2 x	10.8 x	2.9 x	2.3 x	10.2 x	153.9 x
Price / Cash Flow (TTM)	261.9 x	NM	645.1 x	45.4 x	105.5 x	NM	NM	NM

Source: TD Securities Inc., data as at August 31, 2018

TTM: Trailing twelve months

MRQ: Most recent quarter

NM: Not meaningful

Market Approaches - Implied Acquisition Multiples

\$CAD millions		Implied Acquisition Multiples						
		Select Canadian Cannabis En Bloc Transactions: Publicly Listed Cannabis Companies						
Closing Date	Target	Acquirer	Equity Price	Enterprise Value (MRQ)	Revenue	EBITDA	Multiples	
							EV / Revenue	EV/ EBITDA
Jan. 31, 2017	Mettrum Health Corp.	Canopy Growth Corp.	430.0	433.6	7.7	(6.8)	56.4 x	NM
May 1, 2018	CanniMed Therapeutics Inc.	Aurora Cannabis Inc.	1,230.0	1,242.3	16.7	(4.38)	74.4 x	NM
July 25, 2018	MedReleaf Corp.	Aurora Cannabis Inc.	3,200.0	3,210.3	43.6	(3.61)	73.6 x	NM

Source: SEDAR and publicly available company filings

MRQ: Most recent quarter

NM: Not meaningful

Market Valuations: The “Green Rush”

Similar to other emerging industries

- Valuation metrics are very high (Majority of players are currently unprofitable and even some are pre-revenue)
- Investors driving valuations seek “first mover’s advantage”
- Private placement offerings
- Large cap public companies investing in Cannabis companies
 - Constellation Brands Inc. (NYSE: STZ)
 - Molson Coors Brewing Company (NYSE: TAP)
- Exchange Traded Funds
 - Horizons Marijuana Life Sciences Index ETF
 - Horizons Emerging Marijuana Growers ETF

Valuation Considerations: Income Approaches

Discounted Cash Flow and Cap Cash Flow Approaches:

- Forecast cash flows
 - **Maintainable**
 - **Supportable** projections
- Capitalization and Discount Rate
 - **Supported** rate
 - **Appropriate** growth rate for terminal value
- Working capital, sustaining and growth capex and redundant assets **all considered**

Valuation Considerations: Income Approaches

Value Drivers

- **Branding** of product
- **Quality** of biological assets
- Production **cost**
- Ability to meet **licensing** standards
- Location
- **Technology**, capital **investment** and production **capacity**

All of the above impacts the prospective cash flow of the cannabis business which then effects the business valuation

Valuation Considerations: Income Approaches

Risks

- Regulatory oversight and licensing
- **Perception** and access to **financial capital**
- Social **acceptance** (recreational vs. medicinal)
- New market
- **Human capital** (quality, depth and breadth)
- Dependence on **future scientific research**

All of the above impacts the required rate of return for the business and its cost of capital which then effects the business valuation

Valuation Considerations: Getting the Complete Story

Qualitative factors are **considered**

- You cannot understand the Company without understanding **its story** (e.g. operations, risks, competitors, etc.)
- The qualitative story provides **support** for the valuation

Valuation Considerations: Best Practices

Consider multiple valuation approaches

- Asset approach – sets the lower limit
- Income approach – represents future value
- Market approach - used to get comfort on whether the answer is
 - 1st – **Plausible**
 - 2nd – **Supportable**
 - 3rd – **Reasonable**

Valuation of Cryptocurrencies and Blockchain Enterprises

Crypto Assets

- Cryptocurrencies (Bitcoin, Ether, Altcoin)
- Initial Coin Offerings (ICO)

Blockchain Technology Companies

- Crypto miners
- Infrastructure architects
- Service providers

Valuation of Crypto Assets: Cryptocurrencies

Cryptocurrencies

- Liquid and unrestricted
 - Price times Quantity
- Illiquid and / or restricted
 - Price times Quantity times Marketability Discount

Valuation of Crypto Assets: Initial Coin Offerings

Initial Coin Offerings

- Crowdfunding the launch of a new Crypto Asset (or app, service or technology)
- Cost Approach
 - Record at cost (i.e. What was paid)
 - Consider adjustments between purchase date of each pre-ICO investment and Valuation Date for material changes

Valuation of Crypto Assets: Initial Coin Offerings

Initial Coin Offerings

- Hybrid Market Approach
 - Consider trading price of tokens (i.e. tied to Ethereum or other)
 - Consider adjustments between purchase date of each pre-ICO investment and Valuation Date for material changes
 - Then discount total amount to be received using risk adjusted discount rate

Valuation of Crypto Assets: Initial Coin Offerings

Initial Coin Offerings

- Hybrid Market Approach: risk adjusted discount rate
 - Rate reflects the risk associated with the **underlying technology** being developed
 - Rate reflects crypto-volatility

Valuation of Blockchain Technology Companies

Investments in Publicly Traded Blockchain Technology Companies

- Market Approach
 - Price times Quantity

Valuation of Blockchain Technology Companies

Investments in Privately Held Blockchain Technology Companies

- Cost Approach
- Market Approach
- Income Approach

Discounts for lack of marketability and lack of control may also be considered in the valuation

Valuation of Blockchain Technology Companies

Cost Approach

- Typically not appropriate when the company operates as a going concern as it may not capture future economic benefits
- Adjusted Net Asset Approach may be considered when the subject company holds a **significant amount of crypto assets**

Valuation of Blockchain Technology Companies

Market Approach

- Precedent Transactions Method is typically used when the subject company is a going concern and the referenced transactions are **recent** and completed at **arm's length**
- **Adjustments** may be made for time between transaction dates and Valuation Date based on an **index**
- An adjustment for **redundant assets** (i.e. significant bitcoin holdings) may also be made

Valuation of Blockchain Technology Companies

Income Approach

- Typically not appropriate as it would be too speculative given:
 - Volatile nature of industry
 - Limited operating history
 - Significant uncertainty associated with assumptions in financial forecasts
 - Information constraints



Questions?