

CEZA Crypto License fair assessment

July 2019



Executive summary

Context

- CEZA (The Cagayan Economic Zone Authority) has been **tasked by** the government agency in the Philippines **with developing the domestic and offshore fin-tech Industry** and is offering **a unique opportunity for foreign investors** to establish **crypto businesses** (exchanges and/or offerings) **with legal security, stable regulation, and tax incentive.**
- Index-Asia has been mandated to propose a fair assessment and structure for the set-up of a **Joint Venture** between a **local company (LC)** and a **foreign investor (FI).**
- The main assets brought by LC is (i) **a regular “fintech” license** issued by CEZA for setting up a crypto exchange, (ii) exclusive access to the CEZA pilot **license for Security Token Offering**, and (iii) political, business and operational support to grow the venture into a leading global crypto business.

Methodology

- As there has been limited past transactions on a global scale, we decided to assess the fair value of this license through a dual approach, looking at both at the **acquisition cost** of comparable licenses (locally or abroad) and the potential **business value** (through DCF method) of such a company. While the acquisition cost of a crypto license is limited (with a **median at \$1.0m per license**), the business value of the JV could reach billions if the crypto market delivers its promises and continues “tokenizing” a large share of global assets

Recommendation

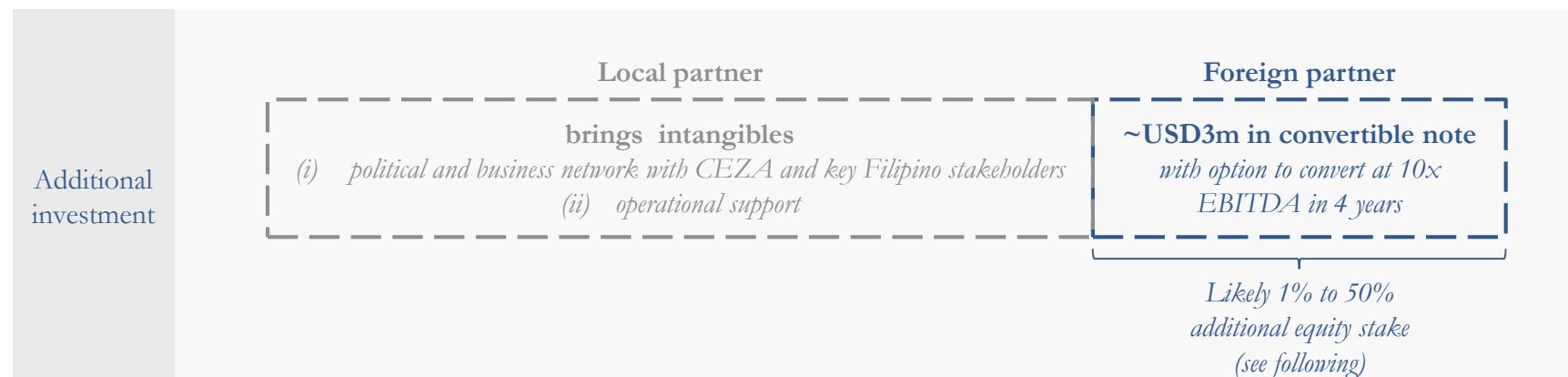
- A total of **\$4.0m investment** from FI would allow for a quick expansion and compensate the LC for its in-kind contribution.
- Given the **gap between the basic license cost and the business value**, Index suggests setting up a structure where **part of the cash investment comes as straight equity** and **part of it as convertible note** so that risk and incentives are shared between LC and FI.

JV structure can be pursued protecting each partners interest

Proposed joint venture deal structure accommodative of future growth



+



Convertible mechanism can capture upside potentials

Conversion scenarios based on varying business performance with local partner

Foreign partner economics

	JV EBITDA in 4 years	JV Enterprise Value in 4 years	Stake in % after conversion	Share in value (in USDm)	IRR
JV Conversion event 1	USD100k	USD1.6m	83%	1.3m	(24%)
JV Conversion event 2	USD425k	USD6.6m	61%	4.0m	0.0%
JV Conversion event 3	USD2.5m	USD39m	40%	15.6m	41%
JV Conversion event 4	USD25m	USD388m	34%	132m	140%

↑
selected operational cases of JV to see downside cases and to test IRR sensitivity

↑
*assuming an exit **EBITDA multiple of 15.5x***

↑
*takes into account the **conversion of USD3m non-interest bearing convertible note at 10x EBITDA***

- I. Legal context
- II. Market size & potential
- III. Valuation exercise
- IV. Appendix

CEZA provides a regulated environment through their licenses

License rights and structure

The Cagayan Economic Zone Authority, is a government agency under the Office of the President which purpose is to cultivate the Fintech Industry by allowing foreign companies that are operating financial technology services and virtual currency exchanges outside the Philippines, to set up its back-office operations within the Cagayan Special Economic Zone and Freeport.

CEZA regulates the issuance of license enabling companies to operate as an : (a) Offshore Virtual Currency Exchange (b) Fintech Service Business (c) Authorized Service Providers

Exchange	Principal Licenses	Regular license
Function	Delivers 4 Regular licenses	To operate as an OVCE, Fintech service provider or Authorized Service Provider. A regular license is sole proprietary & can't be leased
Issuance - as of 11 th July 2019	Capped at 25 Principal Licenses <ul style="list-style-type: none">• 24 are subscribed• The last one is pending soon	15 Licenses have been issued under different principal licenses
Min. Authorized Capital	USD500k	USD150k
Min. Paid-in Capital	USD200k	USD50k
Min. Investment Commitments to CEZA Required	USD1m-2m	USD1m

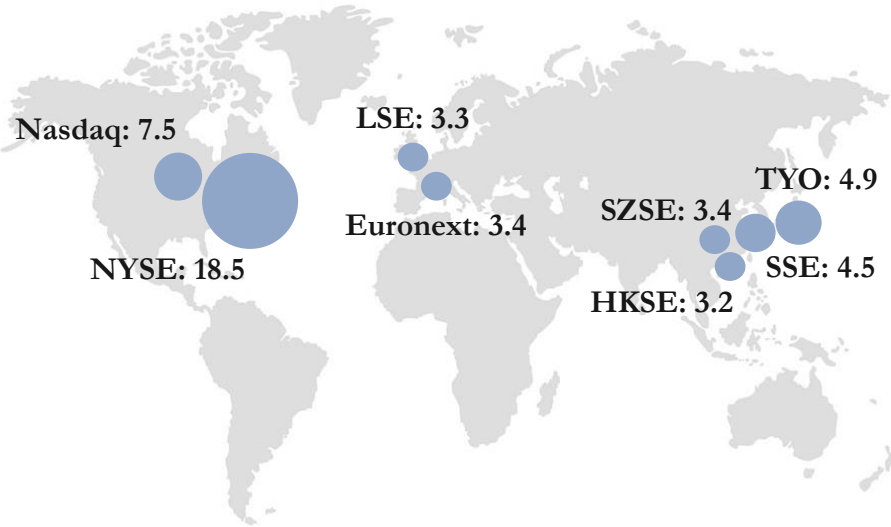
A minimum investment of USD250k is required to operate an OVCE regulated by CEZA

Sources: CDT & Associates, Expert interviews

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Traditional exchanges are large, profitable, and highly valued

Largest traditional equity exchanges
yearly trade volume in USDtn



- There are **60 major stock exchanges** in the world with a cumulative trading volume over **USD69tn**
 - This figure only represents the spot market; the derivatives market is estimated to be anywhere from **5x to 18x larger**
- Revenues** for exchanges are expected to grow from 2018's marker of **USD33.9b to USD37.3b** this year

Exchanges are **highly profitable**—representing or growing into a fraction of this market would render crypto a massive profit maker

Exchange	TEV/revenue	TEV/EBITDA	P/E	EBITDA margin
CBOE	15.9	24.9	38.9	69%
CME	14.3	20.8	31.9	64%
Brasil Bolsa	12	19.7	24.8	61%
NYSE	10.2	16.4	24.2	62%
Nasdaq	6.8	12.4	19.2	55%
TMX	6.4	11.8	15.6	54%
Deutsche Bor	7.9	13.5	21.7	59%
LSE	7.3	14.5	25.5	50%
Euronext	7	12.8	18.4	55%
HKEX	7	12.8	18.4	55%
ASX	12.6	16.4	24.5	77%
JPX	8.9	14.1	23	63%
SGX	8.9	15.5	24.4	57%

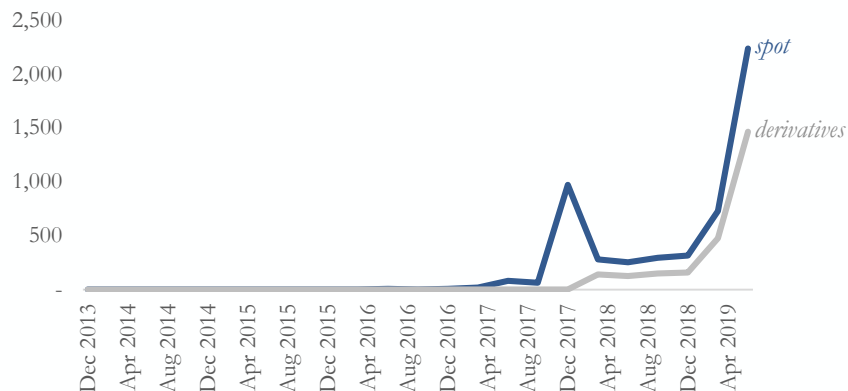
Sources: Rosenblatt Securities "Global Exchanges Landscape" 2018 report, World Federation of Exchanges Annual Statistics Guide 2015, 2018

Crypto exchanges are young, profitable, and rapidly growing

An overview of cryptocurrency spot & derivatives market and token offerings market

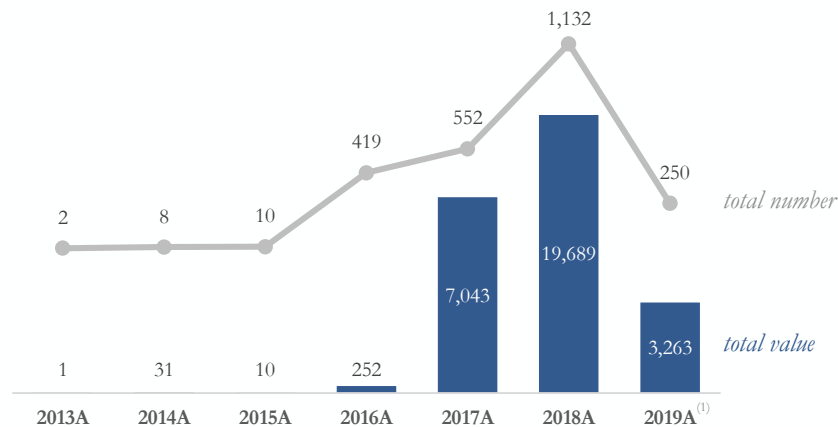
Crypto exchanges trading volumes are on the rise...

Year-on-year trading volumes of crypto spot and derivatives market in USDbn

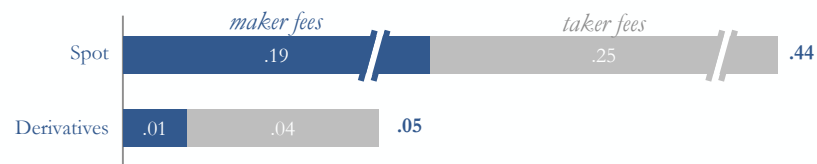


...coupled with upbeat "offerings" activities

Total number and total value in USDm of token offerings (ICO, STO, EIO) per year



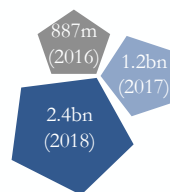
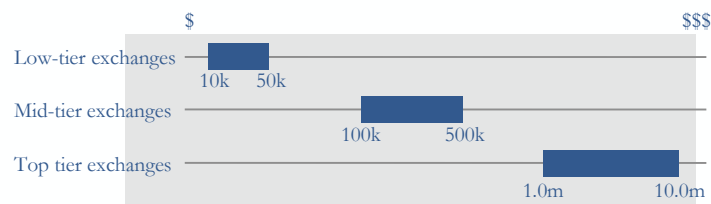
Average % commissions per trade applied on trading volumes



Estimated revenues of Crypto Exchanges, in USDm

	2013A	2014A	2015A	2016A	2017A	2018A
Spot trading	<10	<20	<35	<80	<5,000	<5,500
Derivatives trading	-	-	-	<10	<100	<500
Total Revenues	<10	<20	<35	<100	<5,500	<6,000

USD fee per listing of crypto exchanges according to tier



Cryptocurrency exchanges are estimated to have raked in around **USD2.4bn of revenues** from token listings (ICO, STO, EIO) for the year 2018

EIO emerged as the new trend for raising funds in the cryptocurrency market in 2019

(1) Year-to-date May 2019

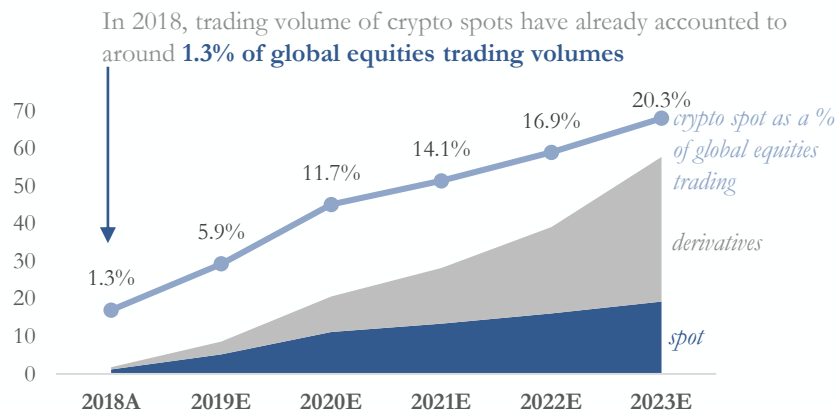
Sources: PwC 5th ICO/STO Report Summer 2019 Edition, Shift Markets, Index-Asia Research

The crypto market is forecasted to boom in the coming years

Cryptocurrency exchange market forecasted KPIs from 2019 to 2023

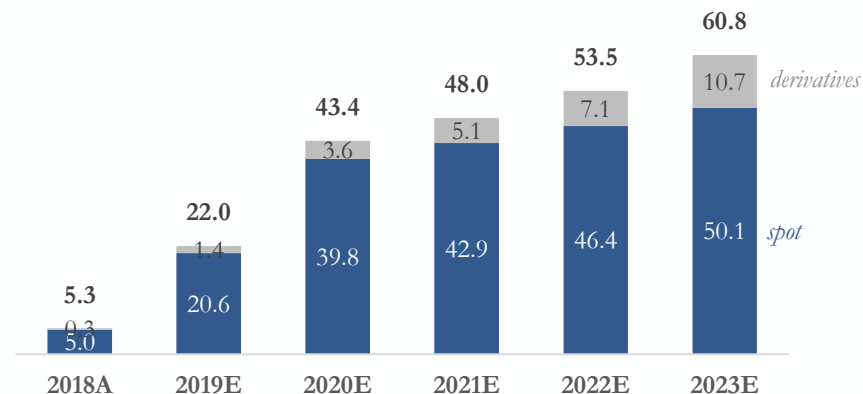
Crypto trading volumes are seen to grow moving forward...

Forecasted trading volumes of crypto spot and derivatives in USDtn



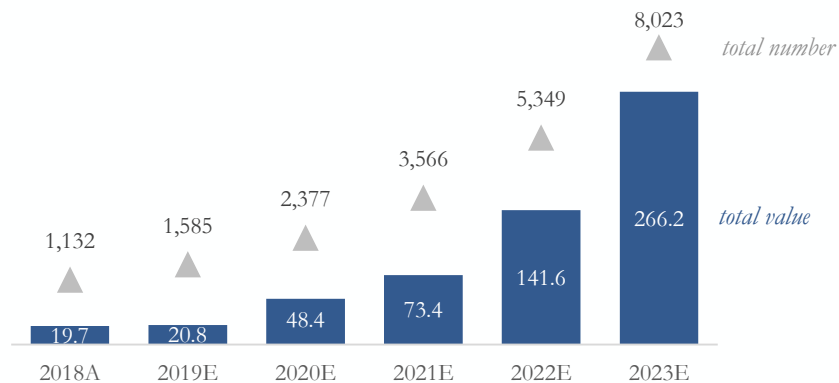
...correspondingly increasing revenue potential of exchanges

Forecasted commission fees from crypto spot and derivatives trading in USDbn



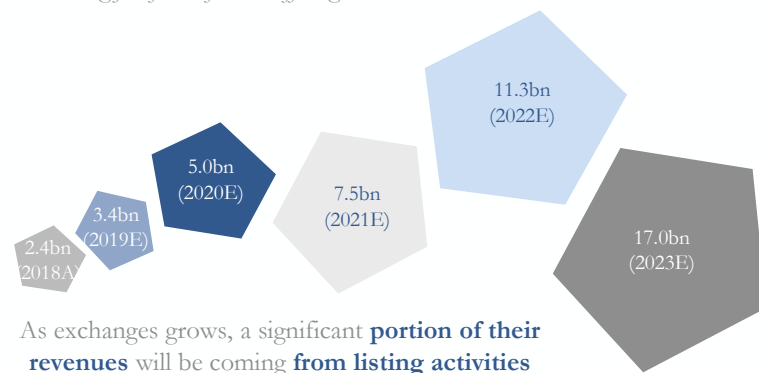
Listing activities will be on the same pace as trading...

Forecasted total number and value in USDbn of token offerings (ICO, STO, EIO)



...with mid to top-tier exchanges raking c. 90% of revenues

Forecasted listing fees from of token offerings in USDbn



As exchanges grows, a significant **portion of their revenues** will be coming **from listing activities**

Sources: Index-Asia Estimates, World Federation of Exchanges, PwC 5th ICO/STO Report Summer 2019 Edition, Shift Markets

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There is a large gap between the asset value and business value

The sole license value doesn't reflect the potential full value of the business

	Methodology 1	Methodology 2
Type	Asset acquisition cost	Business Value
Methodology	Precedent and comparable transactions for exchanges	DCF (Discounted Cash Flow) valuation
Sources	Index-Asia desk research, expert interview	Index-Asia desk research, Industry multiples
Value range (USD)	20.0k – 20.0m	23.0m – 6.8bn
Median Value (USD)	\$1.0m	\$486m

Sources: Index-Asia Research,

Costs to establish exchanges varies per jurisdiction

Methodology 1 – Acquisition cost comparables (traditional & crypto exchanges)

Traditional securities exchanges

- Traditional exchanges require significant paid-up capital and **government buy-in** for startup. Most exchanges started in recent years have been **public-private joint ventures**. Failure within the first decade is common.
- Case study #1: the **Yangon Stock Exchange** is Myanmar's second attempt to establish an exchange. The project started in 2015 with paid-in capital of **USD21m**
- Case study #2: the **Laos Stock Exchange** started in 2011 as a JV between the Korean Stock Exchange and the Bank of Lao PDR. An estimated **USD24m** was raised to finance the exchange
- On average, cost of starting traditional exchanges goes from \$4.0m to \$40.0m, with at least half of it (**\$2.0m to \$20.0m**) related to compliance and regulatory.

Crypto global situation

- We studied crypto license exchange fees in 10 jurisdictions around the world. Compared to other attractive jurisdiction (Malta, Estonia etc), Philippines should not be under direct pressure from leading political influence (EU, US) for tighter regulation of the crypto industry
- Regulatory fees range from **USD20k** and **USD200k** US dollars, with additional cash requirements (paid up capital, escrow, deposit) ranging from **USD50k** to up to **USD10m** in the case of Australia.
- Most crypto exchange licenses focus on the trading of non-security crypto assets and generally **do not cover token sales or initial offerings**

Crypto Philippines

- We have **interviewed three different independent experts** involved in the local crypto ecosystem and aware of pricing of previous offshore crypto license transactions in the country
- All of them believe that most of the previous CEZA “crypto” exchange licenses transactions were done in a bracket price coming from **USD500k** to **USD1.5m**

**Associated fees only account for those related to the establishment of a crypto-exchange no subsequent country associated legal fees are included and vary significantly between nations*

Regulated crypto exchanges could become billion \$ businesses

Methodology 2: potential business value

	Scenario 1: Low case	Scenario 2: Base case	Scenario 3: High case
Assumptions⁽¹⁾			
Crypto market trading volume	Spot trading will be 10% of global equities trading in 5 years	Spot trading will be 20% of global equities trading in 5 years	Spot trading will be 30% of global equities trading in 5 years
Exchange market share on global trading & listing	0.02% by year 5	0.2% by year 5	2% by year 5
Exit EBITDA Multiple	15.5x EBITDA	15.5x EBITDA	15.5x EBITDA
Forecasted Financials on Year 5⁽²⁾			
Revenues <i>(incl. commission fees from spot and derivatives trading and listing fees from token offerings)</i>	USD4.5m <i>(67% spots, 11% derivatives, 22% listing)</i>	USD86.3m <i>(70% spots, 12% derivatives, 18% listing)</i>	USD1.2bn <i>(75% spots, 12% derivatives, 13% listing)</i>
EBITDA	USD2.8m	USD52.6m	USD735m
Value in 5 years (DCF at 14% WACC) [A]	USD23.5m	USD486.0m	USD6.8bn

(1) Based on total commission fees of 30 basis points for spot trading and 2.5 basis points for derivatives trading; Applied listing fees for offerings of around PHP500k to PHP 1m (2) see Appendices for yearly details

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Forecasted financials under scenario number 1 (low case)

	Unit	Year 1	Year 2	Year 3	Year 4	Year 5
Operational Metrics						
Trading volume						
Spots	USDbn	0.01	0.42	0.88	1.38	1.93
Derivatives	USDbn	0.00	0.36	0.98	1.99	3.87
Token offerings	u	-	-	-	-	1
Revenues						
Commission fees from spot trading	USDm	0.02	1.08	1.91	2.55	3.03
Commission fees from derivatives trading	USDm	0.00	0.08	0.18	0.31	0.50
Listing fees	USDm	-	-	-	-	1.00
Total Revenues	USDm	0.02	1.16	2.09	2.86	4.53
<i>% growth</i>	<i>%</i>	<i>n.a</i>	<i>6953.7%</i>	<i>80.3%</i>	<i>36.8%</i>	<i>58.8%</i>
COS (Servers, Networking, and Storage Cost)	USDm	0.00	0.16	0.28	0.38	0.59
Gross Profit	USDm	0.02	1.00	1.80	2.48	3.94
<i>% margin</i>	<i>%</i>	<i>97.7%</i>	<i>86.2%</i>	<i>86.5%</i>	<i>86.7%</i>	<i>87.0%</i>
Operating Expenses		2.43	0.30	0.54	0.75	1.18
EBITDA	USDm	(2.41)	0.70	1.26	1.73	2.76
<i>% margin</i>	<i>%</i>	<i>(14708.4%)</i>	<i>60.1%</i>	<i>60.4%</i>	<i>60.6%</i>	<i>60.9%</i>
Depreciation & Amortization		0.01	0.03	0.07	0.12	0.21
EBIT	USDm	(2.42)	0.67	1.19	1.61	2.56
<i>% margin</i>	<i>%</i>	<i>(14774.0%)</i>	<i>57.5%</i>	<i>57.1%</i>	<i>56.4%</i>	<i>56.4%</i>
Taxes	USDm	0.00	0.05	0.09	0.12	0.20
Net Income	USDm	(2.43)	0.62	1.10	1.49	2.36
<i>% margin</i>	<i>%</i>	<i>(14778.8%)</i>	<i>53.2%</i>	<i>52.7%</i>	<i>52.0%</i>	<i>52.0%</i>
Plus: Depreciation & Amortization	USDm	0.01	0.03	0.07	0.12	0.21
Less: Capital Expenditures	USDm	0.12	0.21	0.42	0.57	0.91
Less: Increase in Net Working Capital	USDm	0.00	0.06	0.10	0.14	0.23
Unlevered Free Cash Flow	USDm	(2.53)	0.38	0.65	0.89	1.43

Forecasted financials under scenario number 2 (base case)

	Unit	Year 1	Year 2	Year 3	Year 4	Year 5
Operational Metrics						
Trading volume						
Spots	USDbn	0.01	5.58	13.37	24.06	38.49
Derivatives	USDbn	0.00	4.75	14.80	34.62	76.99
Token offerings	u	-	1	3	8	16
Revenues						
Commission fees from spot trading	USDm	0.02	14.22	28.98	44.33	60.28
Commission fees from derivatives trading	USDm	0.00	1.01	2.67	5.32	10.05
Listing fees	USDm	-	0.63	2.25	7.00	16.00
Total Revenues	USDm	0.02	15.86	33.91	56.65	86.33
<i>% growth</i>	<i>%</i>	<i>n.a</i>	<i>96506.1%</i>	<i>113.8%</i>	<i>67.1%</i>	<i>52.4%</i>
COS (Servers, Networking, and Storage Cost)	USDm	0.01	2.19	4.59	7.51	11.21
Gross Profit	USDm	0.01	13.67	29.32	49.14	75.12
<i>% margin</i>	<i>%</i>	<i>68.3%</i>	<i>86.2%</i>	<i>86.5%</i>	<i>86.7%</i>	<i>87.0%</i>
Operating Expenses		2.43	4.14	8.85	14.78	22.53
EBITDA	USDm	(2.42)	9.53	20.47	34.35	52.58
<i>% margin</i>	<i>%</i>	<i>(14737.8%)</i>	<i>60.1%</i>	<i>60.4%</i>	<i>60.6%</i>	<i>60.9%</i>
Depreciation & Amortization		0.15	0.46	1.09	2.15	3.75
EBIT	USDm	(2.57)	9.07	19.38	32.21	48.83
<i>% margin</i>	<i>%</i>	<i>(15636.2%)</i>	<i>57.2%</i>	<i>57.2%</i>	<i>56.9%</i>	<i>56.6%</i>
Taxes	USDm	0.00	0.68	1.47	2.46	3.76
Net Income	USDm	(2.57)	8.38	17.91	29.75	45.08
<i>% margin</i>	<i>%</i>	<i>(15639.6%)</i>	<i>52.9%</i>	<i>52.8%</i>	<i>52.5%</i>	<i>52.2%</i>
Plus: Depreciation & Amortization	USDm	0.15	0.46	1.09	2.15	3.75
Less: Capital Expenditures	USDm	1.59	3.39	6.78	11.33	17.27
Less: Increase in Net Working Capital	USDm	0.00	0.79	1.70	2.83	4.32
Unlevered Free Cash Flow	USDm	(4.01)	4.66	10.53	17.74	27.25

Forecasted financials under scenario number 3 (best case)

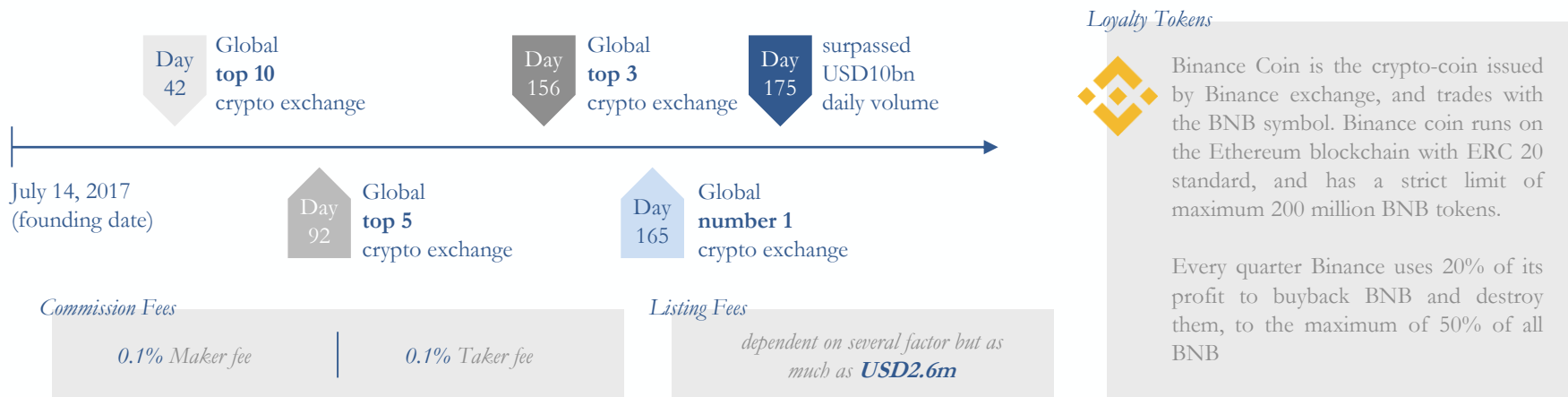
	Unit	Year 1	Year 2	Year 3	Year 4	Year 5
Operational Metrics						
Trading volume						
Spots	USDbn	0.01	55.70	152.60	313.58	572.81
Derivatives	USDbn	0.00	47.42	168.89	451.16	1,145.61
Token offerings	u	-	11	35	80	160
Revenues						
Commission fees from spot trading	USDm	0.02	142.03	330.76	577.74	897.02
Commission fees from derivatives trading	USDm	0.00	10.08	30.51	69.27	149.50
Listing fees	USDm	-	6.88	26.25	70.00	160.00
Total Revenues	USDm	0.02	158.98	387.52	717.01	1,206.53
<i>% growth</i>	<i>%</i>	<i>n.a</i>	<i>968517.8%</i>	<i>143.7%</i>	<i>85.0%</i>	<i>68.3%</i>
COS (Servers, Networking, and Storage Cost)	USDm	0.05	21.94	52.41	95.03	156.71
Gross Profit	USDm	(0.04)	137.04	335.11	621.98	1,049.82
<i>% margin</i>	<i>%</i>	<i>(218.0%)</i>	<i>86.2%</i>	<i>86.5%</i>	<i>86.7%</i>	<i>87.0%</i>
Operating Expenses		2.43	41.50	101.14	187.14	314.90
EBITDA	USDm	(2.47)	95.55	233.97	434.84	734.91
<i>% margin</i>	<i>%</i>	<i>(15024.0%)</i>	<i>60.1%</i>	<i>60.4%</i>	<i>60.6%</i>	<i>60.9%</i>
Depreciation & Amortization		1.48	5.08	12.29	25.63	48.07
EBIT	USDm	(3.94)	90.47	221.68	409.21	686.85
<i>% margin</i>	<i>%</i>	<i>(24032.2%)</i>	<i>56.9%</i>	<i>57.2%</i>	<i>57.1%</i>	<i>56.9%</i>
Taxes	USDm	(0.00)	6.85	16.76	31.10	52.49
Net Income	USDm	(3.94)	83.62	204.92	378.11	634.36
<i>% margin</i>	<i>%</i>	<i>(24021.3%)</i>	<i>52.6%</i>	<i>52.9%</i>	<i>52.7%</i>	<i>52.6%</i>
Plus: Depreciation & Amortization	USDm	1.48	5.08	12.29	25.63	48.07
Less: Capital Expenditures	USDm	15.90	38.75	77.50	143.40	241.31
Less: Increase in Net Working Capital	USDm	0.00	7.95	19.38	35.85	60.33
Unlevered Free Cash Flow	USDm	(18.36)	42.00	120.33	224.49	380.79

Binance: a case study for growing a cryptocurrency business

A quick look on Binance development and business model

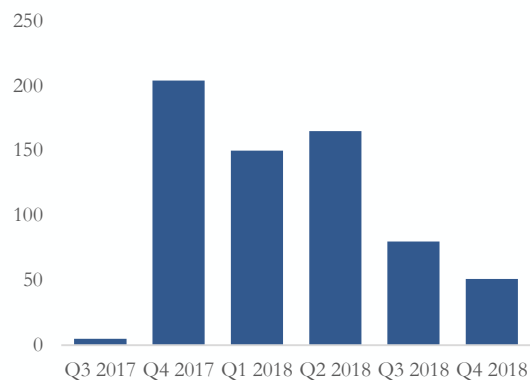
In just under 6 months from founding, Binance was able to be the top exchange globally according to trading volume

An overview of Binance development since founding and related business model



Estimating the profits from its BNB burn

Estimated profits of Binance per quarter in USDm



To date end of year 2018, Binance has conducted six quarterly BNB buybacks, in which it **burned a total of 10,824,871 BNB tokens**, which is close to USD131.02m. So, the total profits made by Binance between Q3-2017 and Q4 2018 should be around **USD655.14m**.

Binance success is a mix of different things

- 1. Binance's Design and Accessibility**
Binance was able to establish an international presence. Supporting more than 14 different languages, they were able to facilitate trading of customers worldwide
- 2. Wide range of digital assets**
The exchange platform supports more token as contrasted to most Chinese exchanges who only support mainstream cryptocurrencies, such as BTC, LTC, and ETH
- 3. Trade-platform token (BNB) and low fees**
The platform charges the lowest fees of all exchanges for the execution of an order. On top of this, if the trade is made in BNB, the fee is 0.05%, while for all other operations, the fee is 0.1%.

Sources: NewsBTC, The Block, BitsOnline

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