

Piccolo Research

Independent research on blockchain startups and ICO's

An independent review of **Binance** (BNB)

31 January 2019 (revised valuation) - Lennard Neo

Piccolo Research is an independent research-house. The company has not received any remuneration (cryptocurrency or otherwise) in preparing this analysis.

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BINANCE (BNB)

Buy

Target Price: **\$10.08**
(63% upside)

Upside persists despite unfavourable market conditions and trading volumes

Company Overview

Binance started in Jul 2017 and is an exchange platform for crypto to crypto transactions. It is one of the largest exchanges by trading volume, serving over 350 token pairs for trading. The exchange boasts a matching engine that can perform 1.4m transactions per second (TPS) and is known for its high liquidity. Behind the platform is a professional team of 400+ employees with an influential CEO Zhao Changpeng at its helm.

Binance is primarily an altcoin focused exchange, differentiating itself from Coinbase, BitMEX and Bitforex. The platform averages \$1b trading volume per day, has over 9m userbase worldwide, and recently surpass Deutsche bank profits in Q1. The platform also announced a \$1b social impact fund to foster the growth of blockchain industry and is continually innovating together with its community.

Concept

MVP

Established

General

Ticker:	BNB
Price (30 Jan 2019)	\$6.17
1y price range	\$4.53 - \$17.25
1y Avg BNB Trading Volume	\$38.9m
Circulating Token Supply	129,175,490
Market Cap (30 Jan 2019)	\$798m

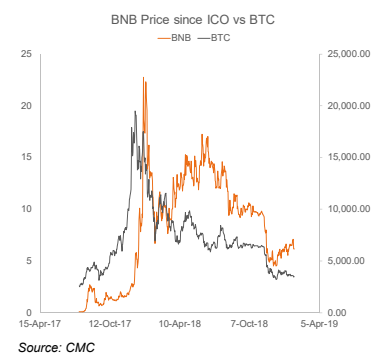
Platform Info

Token Type	Utility
Sector	Exchange/ Finance
Regional Focus	Global
30d Exchange Volume	\$17.6b
CEO	Zhao Changpeng
Website:	Click Here

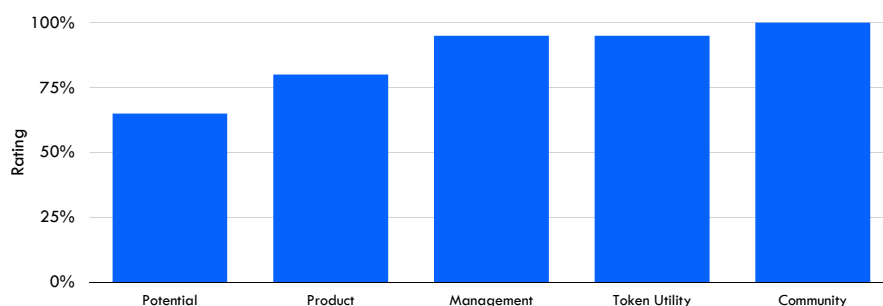
Updates from the previous report (Sep 2018)

Piccolo Research reviewed our valuation on Binance and had adjusted several parameters to reflect current market conditions. The adjustments caused a change in our target price, however, upside potential persist. Here are the significant changes from the previous report.

- The revival of Binance Launchpad providing additional utility value to BNB tokens, resulting in greater adoption and demand
- Overall trading volumes have dropped significantly (~50%) since prior report, hence growth rate of volumes have been adjusted
- Adjusted discount factor to reflect Binance as a stage 3 growth startup
- An increase of MV/Vol multiple across major exchanges from 3.28 to 3.67, increasing relative valuation in this sector



Birds-Eye View



Thematic Views

Greater adoption of BNB tokens spearhead by Launchpad traction.

Binance has gained a significant foothold in the digital asset exchange sector since its inception. The platform has developed itself as one of the major players in the crypto to crypto exchange sector and has built a strong brand name in both the demand and supply side, naming it as one of the most sought-after exchanges for listing. One of its affiliated platforms, Launchpad (a token issuance platform), was highly underutilised for the entire 2018, with the last token issuance (BRD) happening on 26 Dec 2017. However, this had since changed when Binance began 2019 with a promise to launch a new token every month starting with BitTorrent and Fetch.AI. The former, BitTorrent Token (BTT) issuance was scheduled on 28 Jan 2019 where participants were able to purchase BTT with both BNB and TRX. This project was a huge success as it was sold out in minutes. BNB tokens also gained 17% in value over this period when Binance announced BTT's sale. Therefore, Launchpad exhibits the potential to drive additional demand for BNB tokens as it creates additional utility value to BNB for its 10 million users worldwide.

Binance market share of BTC trading volume stabilises. Even though total market cap and trading volume dropped significantly in 2018, Binance has been consistently retaining the top 3 positions as an exchange with the most traded volume globally. Its market share of trading volume for BTC has increased from 25% to 32% with a peak of 47% in June 2018. We see Binance's market share stabilising in the range of 30-40% despite an increasing number of exchanges being launched monthly.

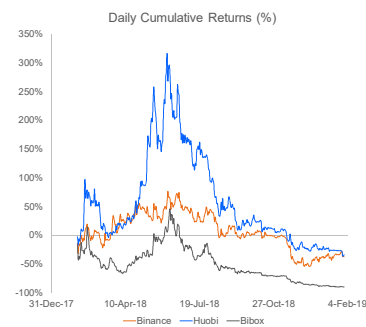
Innovative drive to improve exchange features and product offerings.

Binance has consistently been at the forefront of providing better user experience of their services. In 2018, the exchange revealed an MVP of its decentralised exchange (DEX) platform, which is a core component of their business strategy to provide a hybrid exchange ecosystem in 2019. In addition, the firm made its first acquisition in Trust Wallet to support its DEX platform. There are several other features that Binance had rolled out, which includes Binance Labs, Binance Info and Binance Academy, with the latest being a crypto-to-crypto over-the-counter (OTC) trading desk launched in Jan 2019.

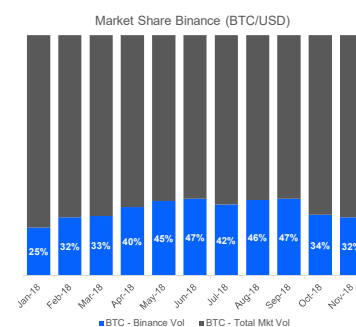
Competitor Analysis

Project Name	Binance	Huobi	Bibox
Infrastructure Type	Crypto to Crypto Exchange	Crypto to Crypto Exchange	Crypto to Crypto Exchange
Symbol	BNB	HT	BIX
Token Utility	Trading fee discount, Capital Gains, Currency	Trading fee discount, Liquidity insurance	Trading fee discount, Capital Gains, Dividends
Initiation Year	Jul 2017	Jan 2014	Oct 2017
Token Price	\$6.17	\$0.95	\$0.13
Market Cap	\$798m	\$47m	\$14m
No. of tokens listed	430	396	195
Trading Fees	Maker: 0.1% Taker: 0.1%	Maker: 0.2% Taker: 0.2%	Maker: Free Taker: 0.1%
Returns since listing (vs USD)	6170%	-37.2%	-25.1%

Figures as of 30 Jan 2019, source: Coinmarketcap



Source: CMC



Source: Diar



Source: Internal

Valuation

Picolo had adjusted several parameters from the previous report to reflect bearish market conditions. The valuation methodology stays unchanged with a two-prong approach to the valuation of BNB. First, fundamental value is derived from token discounts and token repurchases that will occur going forward. We forecast an implied quarterly growth rate of 21.2% in trading volumes and utilise Nasdaq as a competitor to calculate an implied profit margin based on its operational costs. We further assume a quarterly discount factor of 6.8% (30% annualised), indicating an intrinsic valuation of **\$9.53**.

Second, a relative valuation approach using a dataset of comparable exchanges was adopted to derive an average Market Value/Volume multiple (MV/Vol), estimating the token price at **\$10.64**.

An average of the two valuation approaches was taken to derive a value of **\$10.08** per BNB token.

Parameters Inputs	Values	Comments
Initial Supply BNB	200m	
Avg 30d Volume*	14,655,155,344	
% Profits to buyback BNB	20%	
Trading Fees	0.2%	
Growth in Volume Ann	116.1%	Total market cap growth rate since 2013
Growth in Volume QoQ	21.2%	
Discount Factor Ann	30.0%	VC typical discount rate for stage 3 startup
Discount Factor QoQ	6.8%	
Terminal Value growth Ann	3.0%	30y US treasury rate
Terminal Value growth QoQ	0.7%	
Profit Margin	77.9%	Implied Profit Margin derived from Nasdaq OER

*As of 31 Jan 2019, adjusted

Key Risks

- The utility of BNB tokens are heavily skewed to decisions made by the management, as token holders do not hold any rights to these decisions
- Stiff competition between exchanges with some offering over 100% cashback of trading fees for market adoption
- Regulatory changes and uncertainties create headwinds

Fundamental Valuation	Actual						Forecast													
	Q3 2017	Q4 2017	Q1 2018	Q2 2018	Q3 2018	Q4 2018	Q1 2019	Q2 2019	Q3 2019	Q4 2019	Q1 2020	Q2 2020	Q3 2020	Q4 2020	Q1 2021	Q2 2021	Q3 2021	Q4 2021	TV	
(Figures in millions)																				
Trading Discount Schedule	50%	50%	50%	50%	25%	25%	25%	25%	12.5%	12.5%	12.5%	12.5%	6.5%	6.5%	6.5%	6.5%	0.0%	0.0%	0.0%	
Trading Volume							43,965	53,305	64,829	78,358	95,003	115,185	139,654	169,321	205,289	248,899	301,773	365,879		
Trading Fees (Revenue)							88	107	129	157	190	230	279	339	411	498	604	732		
Value of Discount							22	27	16	20	24	29	18	22	27	32	0	0		
Total Revenue to Binance (After Disc)							66	80	113	137	166	202	261	317	384	465	604	732		
Value attributable to BNB repurchase																				
Profits	7.5	200	150	150	85	47	46	56	80	96	117	142	184	223	270	327	424	515	8,585	
Profit to buy back BNB (20%)	2	40	30	30	17	9	9	11	16	19	23	28	37	45	54	65	85	103	1,717	
Discount Factor							0.9365	0.8771	0.8214	0.7692	0.7204	0.6747	0.6318	0.5917	0.5542	0.5190	0.4860	0.4552		
PV profits							9	10	13	15	17	19	23	26	30	34	41	47		
PV of TV																				
Sum of PV of repurchases																				
							1,065													
Value attributable to discounts																				
PV of Discounts							21	23	13	15	17	19	11	13	15	17	0	0	0	
Sum of PV							165													
Total PV (Buyback + Discounts)							1,230													
Total Supply BNB	199	197	195	192	191	189														
Circulating Supply BNB				95.51	130.80	129.18														
Burnt BNB	0.99	1.82	2.22	2.53	1.64	1.62														
Implied token price	\$1.52	\$21.96	\$13.51	\$11.86	\$10.34	\$5.79	\$9.53													

Exchanges	Symbol	Tokens in Circulation	Total Supply	Token price	Market Val (Total Supply)	Adj Volume (24h)	MV/Vol multiple	Implied Token Price	Potential Upside
Binance	BNB	129,175,490	189,175,490	\$6.21	1,174,779,793	548,019,267	2.14	\$10.64	71%
OKEx	OKB	600,000,000	1,000,000,000	\$0.58	583,800,000	422,736,761	1.38	\$1.55	166%
Huobi	HT	50,000,200	500,000,000	\$0.92	461,978,500	379,795,436	1.22	\$2.79	202%
Bibox	BIX	110,938,508	264,480,791	\$0.13	33,321,141	337,175,349	0.10	\$4.68	3618%
KuCoin	KCS	90,138,154	180,138,154	\$0.37	67,445,526	5,849,391	11.53	\$0.12	-68%
Liquid (prev known as Quoinex)	QASH	350,000,000	1,000,000,000	\$0.07	74,627,000	14,316,631	5.21	\$0.05	-30%
CobinHood	COB	371,314,905	1,000,000,000	\$0.01	8,767,000	1,234,030	7.10	\$0.00	-48%
DigiFinex	DFT	2,100,000,000	2,100,000,000	\$0.13	282,265,200	400,128,145	0.71	\$0.70	421%
Bitfinex									
Redeemed / 100% Buyback									

Source: Coinmarketcap, exchange websites (Figures as of 31 Jan 2019)

MV/Vol Avg 3.67

Price Sensitivity Table

Growth Rate	WACC	Price Sensitivity				
		4.8%	5.8%	6.8%	7.8%	8.8%
15.2%		9.43	7.40	6.05	5.10	4.38
18.2%		12.03	9.36	7.59	6.34	5.41
21.2%		15.33	11.83	9.53	7.90	6.69
24.2%		19.51	14.96	11.96	9.85	8.30
27.2%		24.78	18.89	15.02	12.30	10.30

Conclusion

Amidst bearish market conditions, Picolo Research believes the upside persist for BNB, adjusting our **'Buy'** rating on Binance with a target price of \$10.08, which represents a 63% potential upside on current prices. Binance has shown a solid foundation reigning the top 3 spots for an exchange with most volumes traded. Therefore, for the reasons listed below, Picolo affirms its rating:

- Launchpad traction enhance BNB's utility value and demand
- Market share of BTC trading volume stabilising within 30%-40% range
- BNB token value holding up well against its competitors

Notwithstanding the above, Picolo acknowledges the weaknesses in the current markets, but we are optimistic that volatility still exists and trading volumes on Binance have not been heavily affected. Furthermore, our analysts have taken a conservative approach in our valuation model and could become cautious if there are significant changes made to the utility value of the token.

In light of the preceding, we recommend a **'Buy'** rating given the favourable outlook on Binance Token.

About the Analyst

Lennard specializes in fundamental and technical analysis in digital asset investments. He became acquainted with blockchain, cryptocurrency and ICOs in 2016, and recently decided to take a meaningful step away from traditional banking to join this industry. Previously, Lennard spent 3 years with an investment bank in forex and debt capital markets. Prior to this, he also had entrepreneurship experience working with an e-commerce startup and a local social enterprise. Lennard graduated with a master's degree in Applied Finance and is fluent in English, Chinese with a basic in Korean. He is a CFA level III candidate.

Ratings Definition

Monitor – Continue observation until clarity of information is provided

Sell/ Avoid – Investment is associated with high risk of losing capital

Hold/ Neutral – To maintain current levels of position until the next updated release

Spec Buy – A speculative opportunity for investors with higher risk tolerance

Buy – A high conviction buying opportunity

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