

Piccolo Research

Independent research on blockchain startups and ICO's

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

9 May 2019 (updated from 31 Jan 2019) - Lennard Neo

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BINANCE (BNB)

Binance uncomplicated growth story continues on the back of 66% increase in quarterly profits

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 450 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 800+ employees with an influential CEO Zhao Changpeng at its helm.

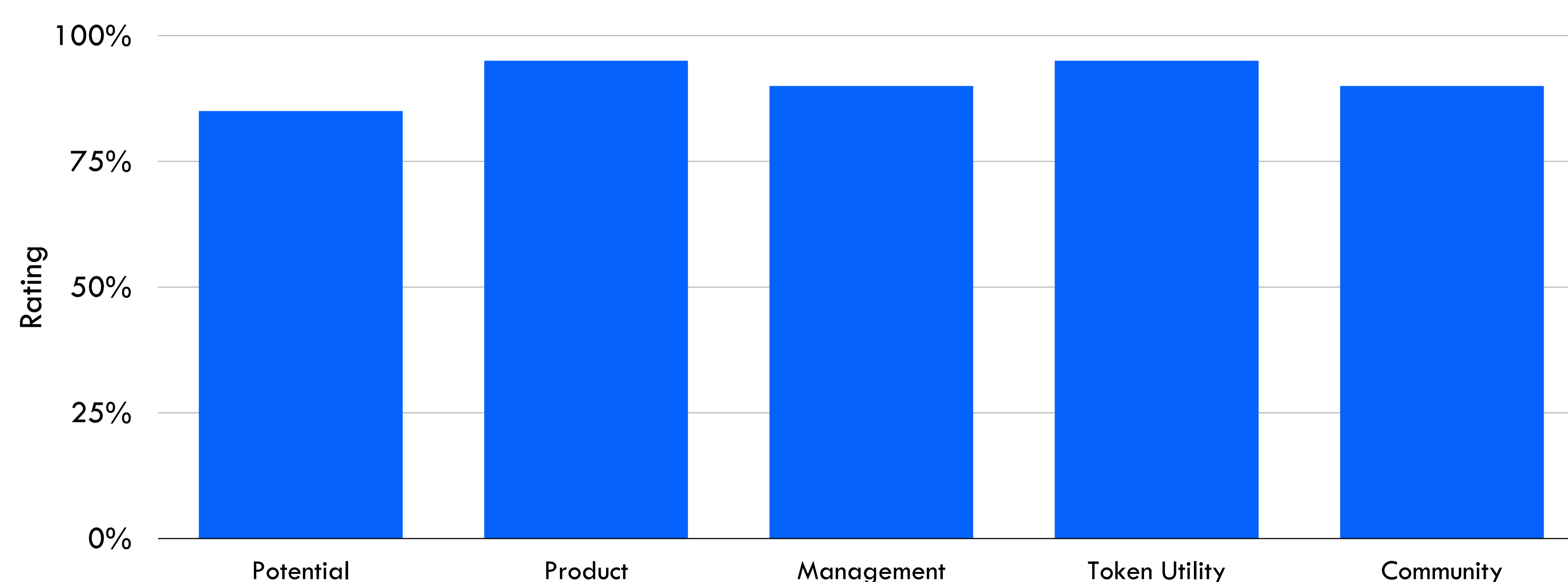


Updates from the previous report (Jan 2019)

Piccolo Research has updated our valuation on Binance taking into account the firm's last quarter developments and current market conditions. Having seen a significant rise in BNB price since Jan 2019, our analysts revisited the valuation and highlighted several changes from the previous report.

- Updated target price of BNB to \$30.11 from [\\$10.08 prior](#)
- Valuation methodology updated to reflect Binance additional expansion and service offerings
- Drop in correlations between BNB and BTC/ETH, signifying divergence between the tokens
- A significant rise in MV/Vol multiple (from 3.67 to 8.10), with markets perceiving higher valuations of exchanges on the back of IEO hype
- Number of employees doubled from 400+ to 800+ signalling aggressive hiring for future growth
- Regulatory threat not as significant as the firm strengthens its compliance department and continual expansion efforts in different jurisdictions

Birds-Eye View



Buy

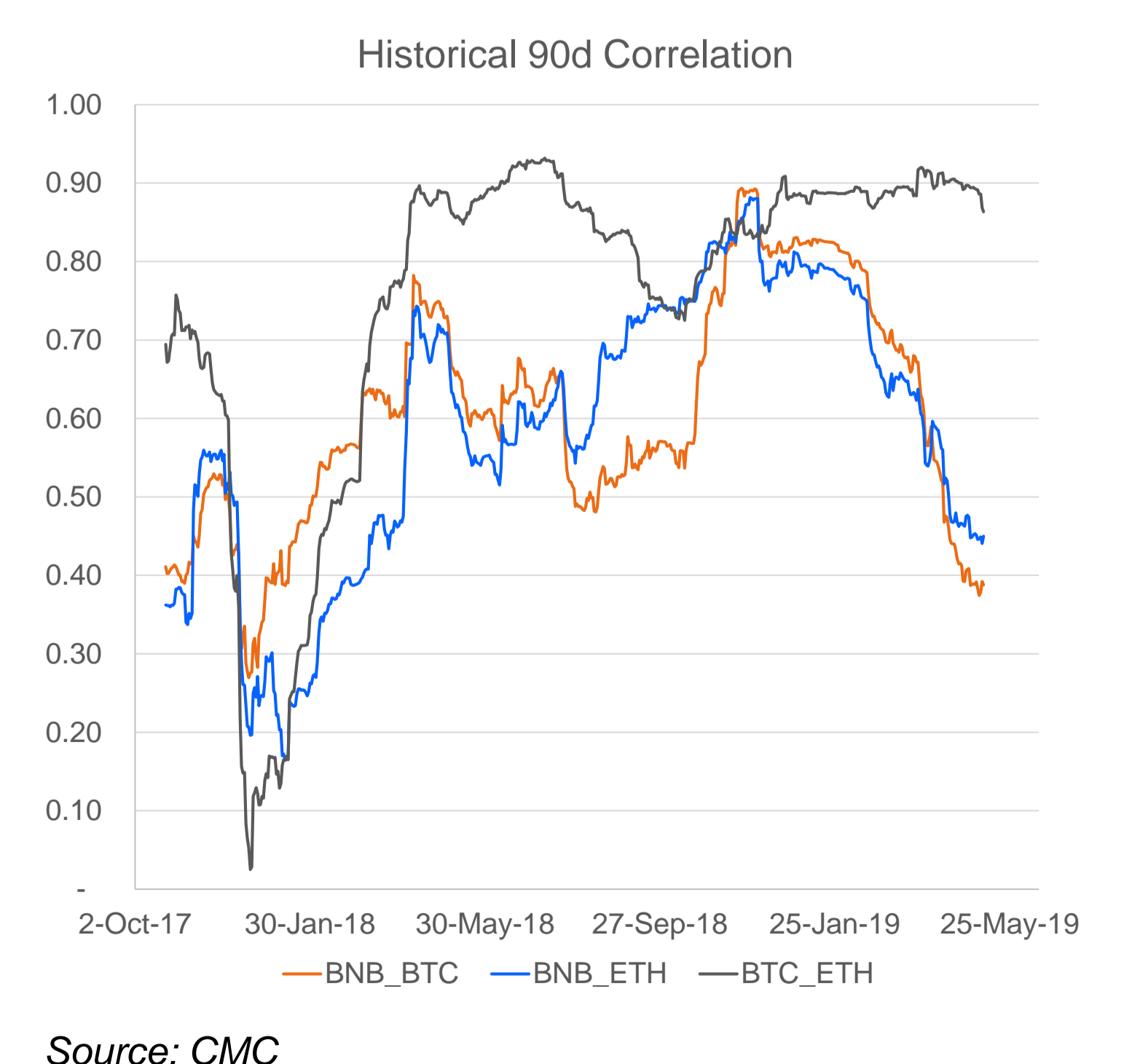
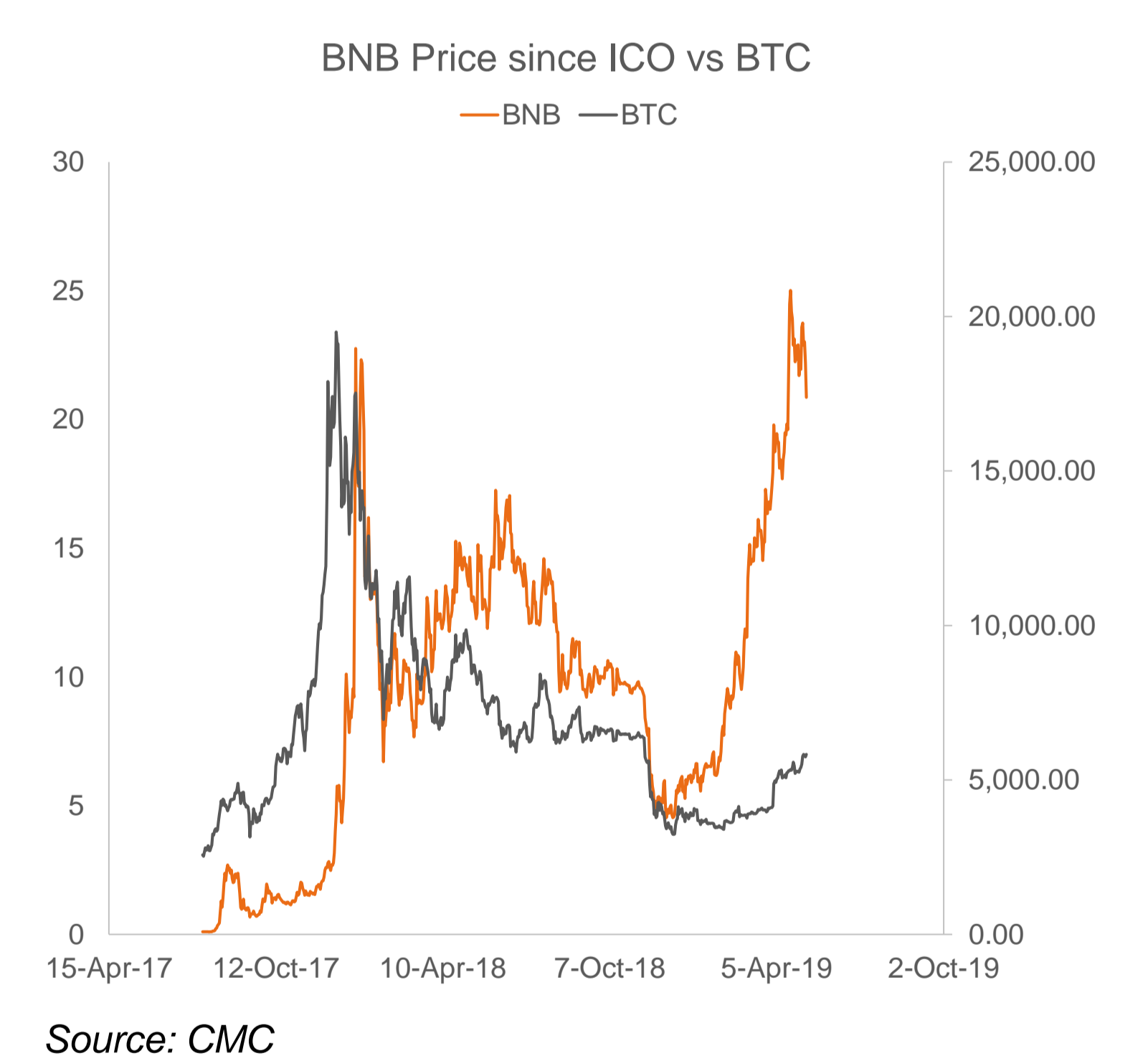
Target Price: **\$30.11**
(45% upside)

General

Ticker:	BNB
Price (8 May 2019)	\$20.75
1y price range	\$4.53 - \$25.01
1y Avg BNB Trading Volume	\$73.5m
Circulating Token Supply	140,345,602
Market Cap (8 May 2019)	\$2,930m

Platform Info

Token Type	Utility
Sector	Exchange/ Finance
Regional Focus	Global
30d Exchange Volume	\$26.9b
CEO	Zhao Changpeng
Website:	Click Here



Thematic Views

Binance Chain the Catalyst. The launched of Binance Chain, its native blockchain, in April 2019 emphasise Binance's vision of empowering a decentralised ecosystem. A week later, the launch of Binance DEX (Decentralized Exchange) follows suit with several projects (Mithril, Red Pulse, Gifto) announcing that they will migrate over to Binance Chain. This creates a shift of power within the top 10 blockchain infrastructure projects and adds another element to the utility of Binance token (BNB). Our analysts foresee a significant spillover effect of the market share on infrastructure projects into Binance Chain, which eventually provides another dimension of valuation on the token.

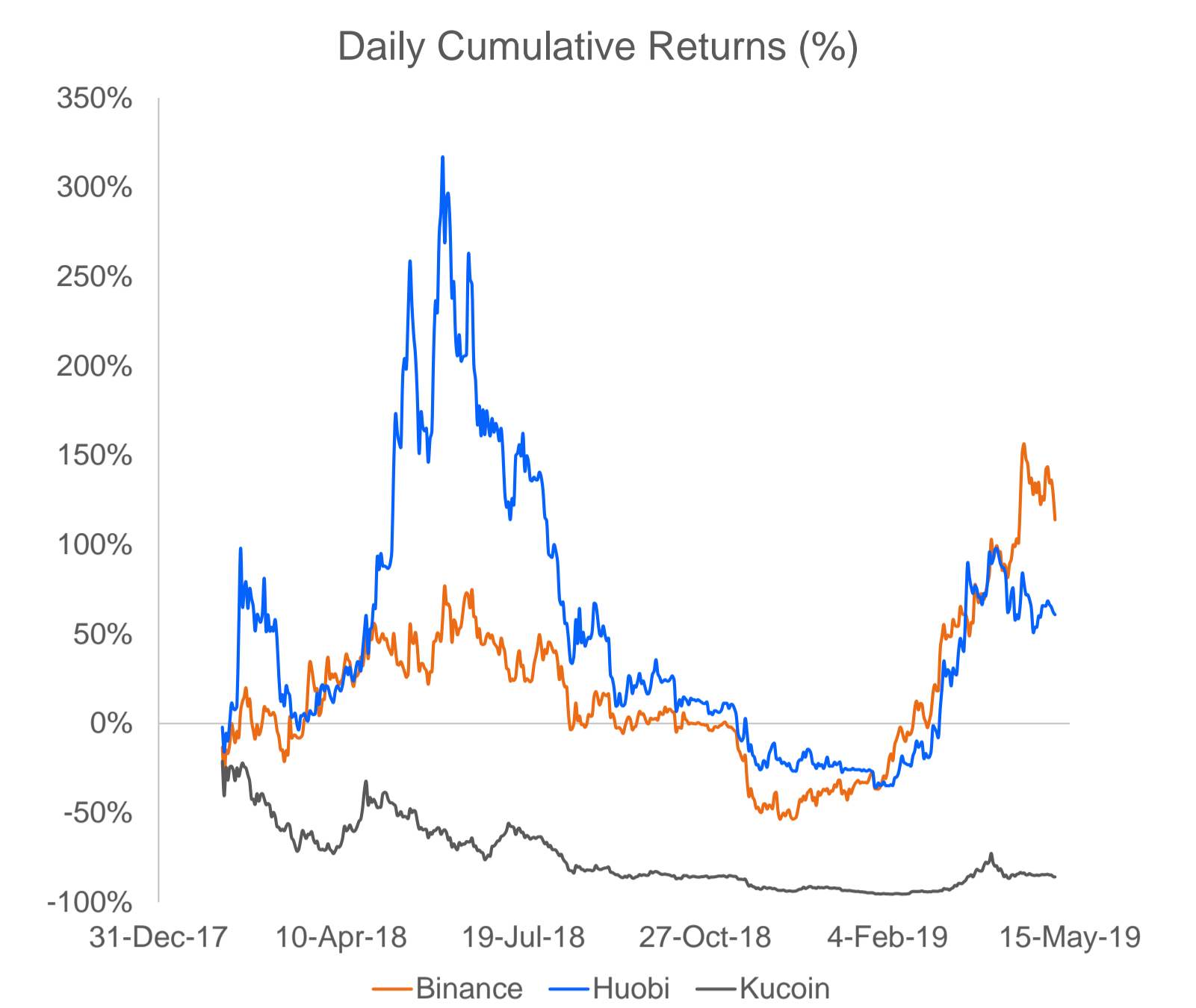
Growing profits on top of increasing trade volumes – Binance saw a 66% jump in QoQ profits in Q1 2019, the first positive gain after a consecutive decline in profits in the past five quarters. This was back by increased total trade volumes, which has picked up significantly in 2019 from \$500b in Dec 2018 to all-time highs of \$1,240b in Apr 2019. In addition, CME Bitcoin Futures volume also saw a huge surge with a 3x gain on the number of contracts traded in Apr 2019 as compared to the prior month, lifting sidelined monies into the market. More importantly, Binance market share of trade volumes has remained stable above the 30% level relative to its peers, which further emphasise its footing as a dominant crypto exchange platform for investors.

Launchpad and DEX a source of direct and indirect revenues – Binance recently unveiled guidelines for their listing process on Binance DEX. Concurrent to that, a listing fee of 2,000 BNB (~\$44k) will be charged to the project upon having a successful vote proposal. Indirectly, both Launchpad and DEX have generated a significant amount of trading volumes, which in turn translate into trading revenue for Binance. The first 7 days of listing volume for a Launchpad project post-IEO such as BTT, FTT and CELR compromise of 11.2%, 6.3%, 6.3% of total Binance Volume respectively, which easily places them as the top 3 trading coins over that same period. That is approximately half of BTC/USDT (12.5-15%) average daily trading volume on Binance.

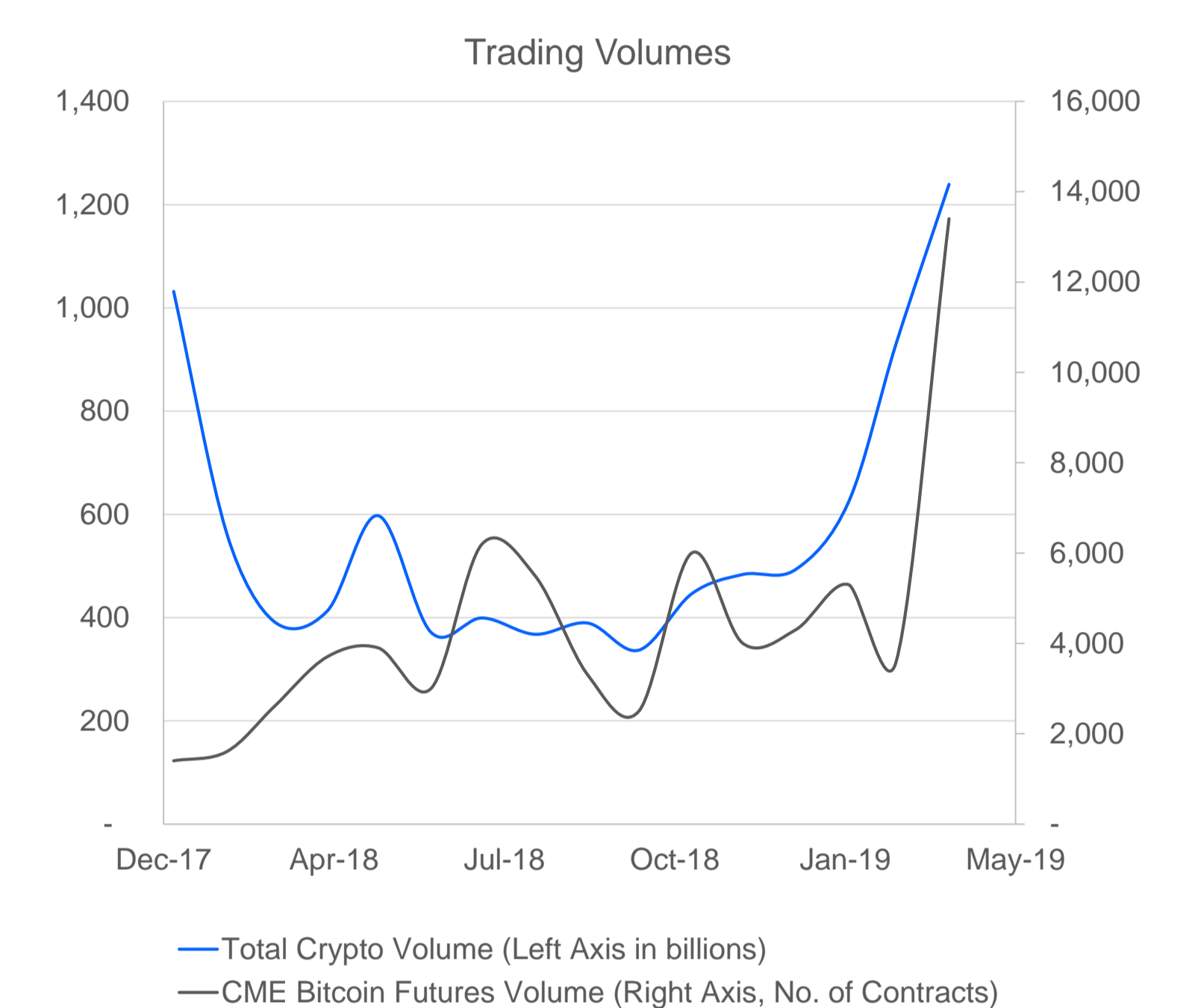
Competitor Analysis

Project Name	Binance	Huobi	Kucoin
Infrastructure Type	Crypto to Crypto Exchange	Crypto to Crypto Exchange	Crypto to Crypto Exchange
Symbol	BNB	HT	KCS
Token Utility	Trading fee discount, Quarterly buyback, Currency, IEO participation	Trading fee discount, Quarterly buyback, Liquidity insurance, IEO participation	Trading fee discount, Quarterly buyback, IEO participation
Initiation Year	Jul 2017	Jan 2014	Oct 2017
Exchange Volume (Past 30d)	\$26,880m	\$20,190m	\$760m
Token Price	\$20.75	\$2.40	\$1.06
Market Cap	\$2,930m	\$120m	\$95m
No. of tokens listed	476	435	406
Trading Fees	Maker: 0.1% Taker: 0.1%	Maker: 0.2% Taker: 0.2%	Maker: 0.1% Taker: 0.1%
Returns since listing (vs USD)	20650%	57.9%	53.1%

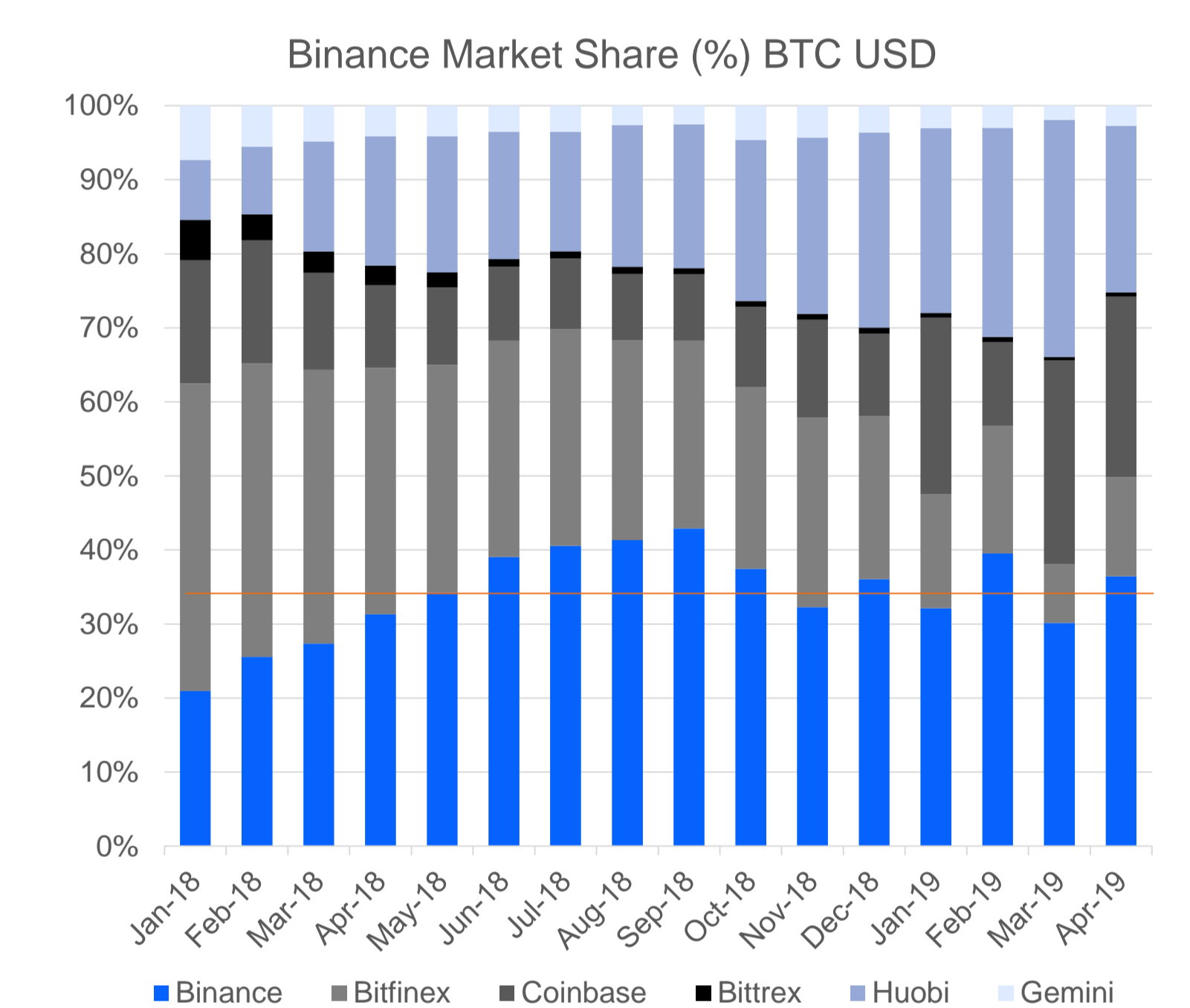
Figures as of 9 May 2019, source: CMC



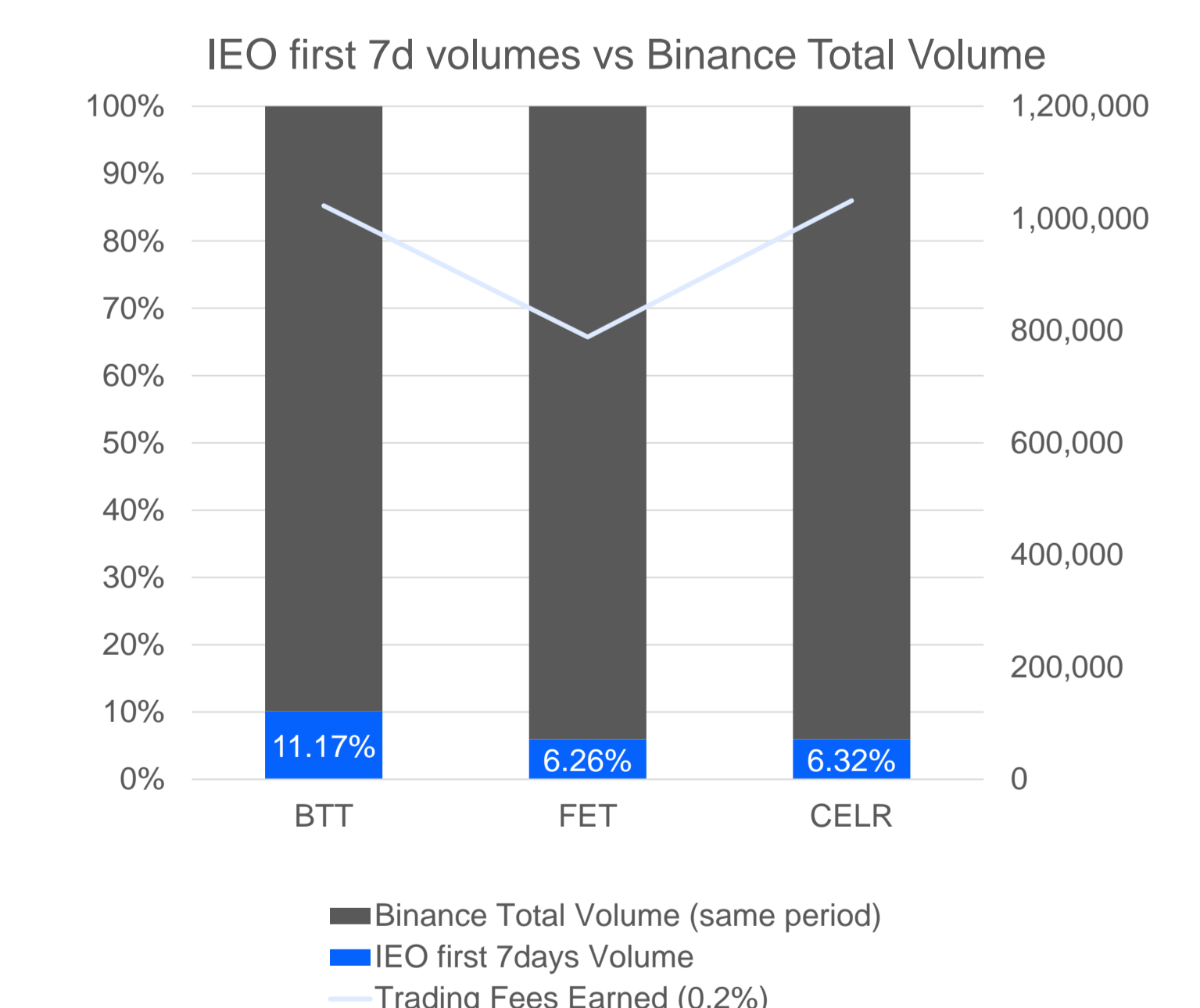
Source: CMC



Source: CMC, CME



Source: CoinGecko



Source: Internal

Valuation

Piccolo adjusted several parameters and adopted the sum of the parts valuation to reflect Binance additional service offerings. We adopted a three-prong approach to the fundamental valuation of BNB to determine the intrinsic value of the token. The three parameters include:

1. Value derived from token discounts
2. Value derived from token repurchases and BNB burnt
3. % proportion of market share derived from Binance chain as an infrastructure project

Our analysts assumed an implied quarterly growth rate of 22.8% and a quarterly discount factor of 6.8% (30% annualised), and after adding the parts together, we derived an intrinsic valuation of **\$33.79**. In addition, a relative valuation was utilised to determine market sentiments of comparable exchanges. Based on the industry Market Value/Volume multiple (MV/Vol), BNB is valued at **\$26.43**

Overall, an average of both fundamental and relative valuation was taken to derive a value of **\$30.11** per BNB token, which represents a **45%** upside.

Key Risks

- Exchange susceptible to hacks with the recent one occurring on 8 May 2019
- Significant technical and fundamental deviation in the broader markets heightens price volatility
- Binance active acquisition hunt could create dilution and dent its treasury

Parameters Inputs	Values	Comments
Initial Supply BNB	200m	
Avg 30d Volume*	23,074,373,307	
% Profits to buyback BNB	20%	
Trading Fees	0.2%	
Growth in Volume Ann	127.6%	Total market cap growth rate since 2013
Growth in Volume QoQ	22.8%	
Discount Factor Ann	30.0%	VC discount rate for stage 4 startup
Discount Factor QoQ	6.8%	
Terminal Value growth Ann	2.9%	30y US treasury rate
Terminal Value growth QoQ	0.7%	
Profit Margin	73.1%	Implied Profit Margin derived from Nasdaq OER

*As of 9 May 2019, adjusted

Binance Chain Comparables	Symbol	Market Cap
Infrastructure		
Ethereum	ETH	18,217m
EOS	EOS	4,490m
Cardano	ADA	1,671m
IOTA	IOTA	765m
NEO	NEO	587m
Ontology	ONT	526m
Currency		
XRP	XRP	12,595m
Stellar	XLM	1,756m
TRON	TRX	1,611m
Tezos	XTZ	937m
Total		43,155m

Source: OnChainFX as of 9 May 2019

Fundamental Valuation (Figures in millions)	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	Q1 2022	TV	
Trading Discount Schedule	50%	50%	50%	50%	25%	25%	25%	25%	12.5%	12.5%	12.5%	12.5%	12.5%	6.75%	6.75%	6.75%	6.75%	0.0%	0.0%	0.0%	0.0%
Trading Volume									81,305	99,861	122,653	150,645	185,027	227,255	279,121	342,825	421,067	517,166	635,198	780,168	
Trading Fees (Revenue)									163	200	245	301	370	455	558	686	842	1,034	1,270	1,560	
Value of Discount									41	25	31	38	46	31	38	46	57	0	0	0	
Total Revenue to Binance (After Disc)									122	175	215	264	324	424	521	639	785	1,034	1,270	1,560	
Value attributable to BNB repurchase																					
Profits	7.5	200	150	150	85	47	78		89	128	157	193	237	310	381	467	574	756	929	1,141	18,936
Profits to buy back BNB (20%)	2	40	30	30	17	9	16		18	26	31	39	47	62	76	93	115	151	186	228	3,787
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									17	22	26	30	34	42	48	55	64	78	90	104	
PV of TV									1,724												
Sum of PV of repurchases									2,334												
Value attributable to BNB discounts																					
PV of Discounts									38	22	25	29	33	21	24	27	32	0	0	0	0
Sum of PV									251												
Value attributable to Binance Chain																					
Binance gain 5% Market share value of comparable projects									2,158												
Sum of the Parts Valuation (Buyback + Discounts + Binance Chain)																					
									4,742												
Total Supply BNB	199	197	195	192	191	189	188														
Circulating Supply BNB				95.51	130.80	141.18	140.35														
Amt of Burnt BNB	0.99	1.82	2.22	2.53	1.64	1.62	0.83														
Implied token price	\$1.52	\$21.96	\$13.51	\$11.86	\$10.34	\$5.79	\$18.80		\$33.79												

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	140,345,602	188,345,602	\$20.75	3,908,171,242	614,788,371	6.36	\$26.43	27%
OKEx	OKB	300,000,000	1,000,000,000	\$1.61	1,610,000,000	1,104,484,510	1.46	\$8.94	455%
Huobi	HT	50,000,200	500,000,000	\$2.40	1,200,000,000	609,057,932	1.97	\$9.86	311%
KuCoin	KCS	89,659,415	179,659,415	\$1.06	190,438,980	23,906,505	7.97	\$1.08	2%
Liquid (prev known as Quoinex)	QASH	350,000,000	1,000,000,000	\$0.12	123,144,000	6,602,931	18.65	\$0.05	-57%
BitMax	BTMX	615,411,868	10,000,000,000	\$0.10	1,027,000,000	84,364,700	12.17	\$0.07	-33%
Bitfinex									
Redeemed / 100% Buyback									

Source: Coinmarketcap (Figures as of 9 May 2019)

MV/Vol Avg 8.10

Price Sensitivity Table						
		WACC				
		4.8%	5.8%	6.8%	7.8%	8.8%
Growth Rate	16.8%	33.79	29.70	26.99	25.08	23.65
	19.8%	38.92	33.55	30.00	27.49	25.64
	22.8%	45.42	38.41	33.79	30.54	28.13
	25.8%	53.64	44.54	38.56	34.35	31.25
	28.8%	63.98	52.24	44.52	39.11	35.14

Conclusion

Piccolo Research analysts conclude that BNB will continue to outperform on the back of an uncomplicated growth story. Therefore, we re-affirm our **'Buy'** rating on Binance with a target price of \$30.11, representing a 45% potential upside. The reasons listed below ascertain our rating.

- Binance Chain adding an element of growth for BNB token
- Launchpad will continue to enhance BNB's utility value and demand in the short term
- Greater activity seen in the markets with growing trade volumes
- Positive % increase of QoQ profits after 5 consecutive quarterly decline
- Diverging correlations between BNB with BTC/ETH enhances the attractiveness of the token

Notwithstanding the above, Piccolo acknowledges several weaknesses such as the recent hack of Binance with increased price volatility. However, the team showed great composure in handling the situation. Furthermore, our model suggests that this event has minimal impact on the long-term value of the token albeit short-term deviations.

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

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

Disclaimer

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