

**Neptune Digital Assets Corp. (NDA.V)**  
**Rating: Buy**

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**Early Stage Crypto Mining and Staking Conglomerate  
Shows Promise; Initial Coverage Buy, Though Risky**

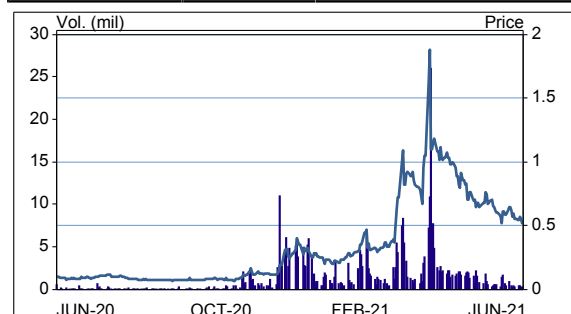
Stock Data		06/24/2021
Price		C\$0.52
Exchange		TSXV
Price Target		C\$1.00
52-Week High		C\$2.22
52-Week Low		C\$0.07
Enterprise Value (M)		C\$28
Market Cap (M)		C\$53
Shares Outstanding (M)		92.8
3 Month Avg Volume		2,436,051
Short Interest (M)		0.08

Balance Sheet Metrics		
Cash (M)		C\$25.00
Total Debt (M)		C\$0.00
Total Cash/Share		C\$0.27

General: EPS might not add on account of stock issuance and rounding. Cash balance reflects H.C.W. pro forma estimate post C \$37M capital infusion less crypto coin and crypto mining machines purchased.

EPS (C\$) Diluted			
Full Year - Aug	2020A	2021E	2022E
1Q	0.00	0.00A	--
2Q	0.01	0.03A	--
3Q	0.00	0.00	--
4Q	0.01	0.00	--
FY	0.01	0.07	0.05

Revenue (C\$M)			
Full Year - Aug	2020A	2021E	2022E
1Q	C\$0.0	C\$0.0A	--
2Q	C\$0.0	C\$0.0A	--
3Q	C\$0.0	C\$0.1	--
4Q	C\$0.1	C\$0.5	--
FY	C\$0.1	C\$0.7	C\$6.3



**Intriguing cross-section of crypto interests, but scale stands as a challenge.** We are initiating coverage of Neptune Digital Assets given the company's mix of partner-aided bitcoin mining complementing Neptune's stash of staked cryptocurrencies totaling in excess of C \$10-12M that yield as much as C\$300,000-400,000 in monthly staking earnings, or returns, that flow through the P/L in other income, not revenue; the combination of proof-of-work and proof-of-stake crypto mining naturally diversify Neptune's earnings stream. Based in Vancouver Canada, Neptune has struck various partnerships in hosting, powering, and growing its bitcoin mining activities preferring to outsource skills in managing headcount. One hosting partnership with Link Global may expand to consume 5MW in Alberta, led to a power joint venture to bring another 20MW of green power online at a future date. A second bitcoin-targeted agreement, this one with Luxor Technology Corp., a Seattle-based software house vertically integrating proof-of-work functionality, should enhance Neptune's bitcoin mining program with hash rate delivered in the August quarter and in the U.S. Because details of deployment specifics remain hush on account of the early discussion, this deal was excluded from our projections. Although bitcoin mining activities are centered in locations exploiting power supply economically, Neptune manages its staking activities from its headquarters with minimal exposed headcount—two full-time employees run this entire company. Neptune's crypto passion, diversified revenue streams, and portfolio of crypto assets we think create a unique composite investable for those interested in broad crypto exposure, and because we find the concept both proven and ultimately enticing, we offer a favorable Buy investment opinion and set a \$1.00 price target, but suggest caution on account of humble scale magnifying the risk inherent crypto volatility.

**Bitcoin is a new add; commitment to opportunistic growth.** Neptune launched its bitcoin mining initiative wholeheartedly just earlier this year with its March 29 receipt of its first batch of 300 S17 Antminers delivering a total of 15 PH/s (peta hash) and announced commencement of mining activities on April 28. The company initially announced attacking bitcoin in early March with the consummation of a hosting partnership in conjunction with the hope to procure 1,500 bitcoin miners, which think may have tapered somewhat on account of high equipment prices. But we see Neptune intent on reaching the 75 PH/s range by calendar year-end most likely through its newly announced partnership with Luxor and the next-generation of Bitmain Antminer, the S19. We applaud Neptune's industrial take on bitcoin mining, but stand concerned with regard to ultimate scale. Consider Neptune's current 5-25MW announced target versus other publicly-traded competitors already operating at multiple times the size with the larger firms tracking to have as much as 800MW online. Given continual increases in bitcoin network hash, we see individual miners faced with matching network hash or losing share. Couple growth requirements with machine and energy source requirements, and tremendous pressure may well overcome miner management in matching the efficiencies garnered by those with access to hundreds of megawatts of inexpensive power in one single secure location. The balance for Neptune is, of course, advantageous bitcoin mining economics complemented by diversified and staked crypto holdings.

**Basket of staked crypto.** Offsetting the scale hurdle we see in bitcoin, Neptune's rough consolidated \$10-12M holdings in bitcoin, Ethereum, ATOM, Fantom, Litecoin, Stellar, Dash, among others, funded from the company's recent C\$40M capital raise, are used in crypto blockchain construct and transaction validation that award crypto as a function of the crypto staked. Primarily on account of the large year-end crypto run up, Neptune's crypto value increased to \$5.5M as of Feb. 28 this year, up 124% from \$2.4M as of Aug. 31 last year, but we understand that balance now rides in the low double-digit millions range. While we imagine the rate of staking earnings may have declined since the last Neptune report on April 28, the company announced at that time earning C\$400,000 per month. Our forecasts incorporate more modest staking returns going forward that approach roughly 9% gains and exclude underlying crypto appreciation as a conservative view, but the upside potential certainly exists in a heavily bullish crypto market where both rates and crypto holding values escalate.

**Initial Buy rating and C\$1.00 price target.** We are starting off with a Buy rating based on three specific views to valuation and our forecast: (1) historical trading range supports a higher stock price, especially based on the increase in bitcoin mining hash rate complemented by Neptune's level of staked cryptocurrencies now in the C\$10-12 million range; (2) our conservative take on the earnings generated by Neptune's staked crypto is well below the C\$300,000-400,000 monthly earnings Neptune says it saw during the late days of May into the early days of June; and (3) a P/E multiple of 20x our FY22 (ends August) C \$0.05 EPS estimate that could prove ultra-conservative in light of Neptune's staking returns while yielding a C\$1.00 target. On the other hand, our bitcoin mining assumptions may be aggressive in considering Neptune's opportunistic equipment buying now aligned with the company's new agreement with Luxor Technology Corp. when and only when that partnership believes equipment purchases make sense. Our forecasts include Neptune reaching 75 PH/s of bitcoin mining hash rate by the end of the current calendar year. Meanwhile, we see our take on staked earnings—the altcoin crypto balances Neptune allocates toward blockchain transaction verification—perhaps overly conservative and below the company's expected \$300,000-400,000 monthly returns, primarily on account of poor transparency—Neptune has yet to post a quarterly report including staked earnings—in concert with the Neptune's venture into some crypto ecosystems with which we see it having less experience. Furthermore, it remains unclear how Wall Street, investors, and Neptune shares themselves may react to earnings driven by staking income recognized on the income statement in the manner interest income is. Either way, we see our earnings multiple justified by others carried in the crypto universe, such as the 17x multiple at Riot Blockchain—a premium to this is warranted based on Neptune's crypto diversification, where Riot is bitcoin-focused alone—and justified by Neptune's recent stock trading action that breached the C\$2 level just two months ago. And lastly, of Neptune's current C\$0.52 per-share price, as much as half may be attributed to the company's cash balance that roughs out to an approximate C\$0.25-0.30 based on our estimates, implying the Street is placing little associated value in Neptune's current operation. We believe the picture changes tremendously once Neptune's May and August 2021 income statement and balance sheet are reported. An investment in Neptune, we think, pushes the boundaries of speculation given risks of investment that include all those associated with volatile cryptocurrencies, including hash rate and price, while also including hacking and other exposures exclusive to digital activities. Neptune too is not immune to a standard list of risks, such as dilution, operating, regulation, and currency exchange.

## Overview and Background

Neptune Digital Assets Corp., incorporated October 2017, is a Vancouver, British Columbia-based technology company focused on cryptocurrency and blockchain technology investments with a prime objective to grow exposure to bitcoin mining and proof-of-stake DeFi, or distributed finance, based tokens and ecosystems. Originally called Neptune Dash staking C\$20M with an emphasis on operating Dash nodes, Neptune gained experience in staking through the crypto winter of 2018 – 2020, realizing diversification was critical. Per the diagram below, Neptune's business now revolves around four primary operations with the emphasis on mining either through proof-of-work (PoW) or proof-of-stake (PoS). Over the four years of our crypto coverage, the majority of our covered companies have dedicated operations toward PoW, mining, primarily bitcoin, and more recently added to our coverage, and specific company operations, Ethereum. While the jury appears to remain out regarding timing, our research appears to overwhelmingly support the migration of Ethereum's mining protocol to PoS from PoW with that migration to occur over the next 12-24 months, we suppose. At that point, our Ethereum miners may be faced with a choice to adopt PoS mining or direct the use of their GPU miners toward some other function, whether it be high performance computing or mining some other cryptocurrency. The question puts us smack in the middle of Neptune Digital's strategy and its outlook given a mix of PoW and PoS crypto mining.

## Proof-of-Work and Proof-of-Stake Crypto Mining Among Other Crypto-Focused Operations



Source: Company Presentation April 2021.

Each crypto has an algorithm behind it, which may be as simple as “pegging” such as USDC, pegged to the dollar, or more sophisticated, such as bitcoin, which we have discussed in multiple papers over the past four or more years—all of which serve as a reasonable reference, including the June 1, [With Crypto Now Institutionalized and Ingrained, Many North American Miners Are Poised to Pounce](#), which we believe serves as the best reference choice within our repertoire of work. Below, we have included the cryptos that drive Neptune's business, and we discuss them more fully in this paper.

## Key Cryptos in Neptune's Portfolio: Value Stores to the Building Blocks of Decentralized Finance (DeFi)



Source: Company Presentation April 2021.

## Roughly \$5.5M of Crypto Holdings Late February Expanded to the C\$10 – 12M Range

	Holdings, February 28, 2021	Fair Value, February 28, 2021	Holdings, August 31, 2020	Fair Value, August 31, 2020
ATOM	140,960	\$ 3,154,112	134,762	\$ 1,266,680
Fantom	1,439,481	771,295	-	-
Bitcoin*	7	409,566	5	76,584
Dash	2,027	399,834	9,090	1,057,945
Ethereum	197	354,275	67	37,935
Tether	237,853	302,645	-	-
Litecoin	223	46,671	38	3,048
Bitcoin Cash	65	37,907	-	-
Stellar	12,784	6,601	12,784	1,622
NEO	44	1,941	44	1,164
Omiseego	77	418	77	518
QTUM	52	322	52	230
Balance		\$ 5,485,587		\$ 2,445,726

\*Does not include BTC loaned out to third parties

Source: Neptune Digital MD and A six-months ending February 28, 2021.

Not new in the crypto space, Neptune has a four-year operating history, and manages its crypto through a wholly-owned subsidiary, Neptune Stake. The company's two employees, Cale Moodie, CEO, and Kalle Radage, COO, have been involved in bitcoin since the early days of crypto in 2013. We understand that aside from the crypto buys made on behalf of Neptune, they buy bitcoin for themselves while running GPU miners on their own as well.

For year-end August 2020, Neptune generated C\$149,071 in sales, down 26% from 2019's C\$202,311 primarily on account of the crypto sphere's value decline.

### Bullish Lean on an Emerging Crypto Accumulator and Staker

We are initiating coverage of Neptune Digital Assets with a Buy rating based on the company's mining prospects, both in using proof of work and proof of stake. The underlying support for our bullish thesis stems from our thinking in cryptocurrencies in general and the blockchain functionality they bring to finance we see superseding legacy financial systems, or at least taking market share, into the future. Beyond that, Neptune's recent leap into bitcoin mining provides diversification away from its reliance on staking its rough C\$10 – 12 million in crypto, where some of Neptune's staking programs include Cosmos (ATOM), Fantom (FTM), Polkadot (DOT), and Ethereum (ETH). Our simplistic financial forecast is based on what we see as an economical hosting agreement with Link Global at C\$0.04 per kWh for roughly 16 PH/s, still small, but representing a start, backed by a 9% yield on Neptune's staked value that may drive revenue of at least C\$300,000 – 400,000 per month based on company projections. Our forecasts reflect lower returns given the company's nascent stature in applying the recently raised C\$40 million, closed mid-April, remains undemonstrated in official financial reports. Full quarter May results are not expected until sometime late July 2021.

#### 1. Bitcoin mining supplements and diversifies revenue.

In effort to avoid boring our readers or re-inventing the advocate bitcoin wheel, we suggest referencing many of our past reports from the most recent report, referenced above, June 1, [With Crypto Now Institutionalized and Ingrained, Many North American Miners Are Poised to Pounce](#), to our initiation of Riot Blockchain, back in May 2018, Mutually Supportive Bitcoin Functions Combine for a Unique Business Model; Initiating Coverage, that details where we see merits of bitcoin mining. While bitcoin may be seen primarily as a store of value at this juncture, cryptocurrencies have the capability of bringing financial services to the massive unbanked population of the world while reducing the costs associated with transactions in traditional financial services. Crypto, as we see it, represents the next technology step currency makes in supporting the ascent of man.

#### Big Bump Up Attracted Great Crypto Interest and Investment



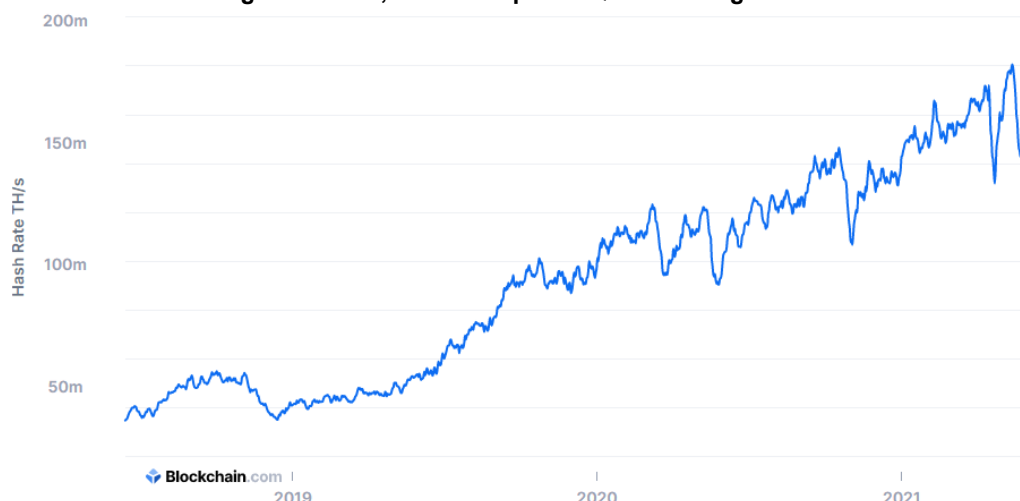
Source: Coindesk, June 12.

With the rise of bitcoin last fall, institutional interest has intensified, capped, we think by the research paper released by the research team at Fidelity Digital Assets, called Bitcoin Investment Thesis, and released October 7, 2020. Perhaps most important is institutional adoption. Adoption continues, with El Salvador adopting bitcoin as legal tender, and ForUsAll Inc. a 401(k) provider announced a deal with Coinbase Global Inc., a leading publicly-traded cryptocurrency exchange, that allows workers in its administered plans to invest up to 5% of contributions in bitcoin, Ether, Litecoin, and others. Since November, as our list on the following page attests, institutional interest continues to grow.

### Corporate and Financial Institution Adoption is Solidifying the Cryptocurrency Assets

- **November 20, 2020.** BlackRock (world's largest asset manager) CIO Rick Rieder reveals that he views bitcoin as a contender to gold
- **November 24, 2020.** PendalGroup (\$73.6 billion assets under management or AUM) starts investing in bitcoin futures
- **November 29, 2020.** Guggenheim's Macro Opportunities Fund (\$5.3 billion AUM) reserves the right to allocate up to 10% in Grayscale Bitcoin Trust
- **November 30, 2020.** AllianceBernstein's (\$631 billion AUM) Bernstein Research recommends that Bitcoin can comprise 1.5% to 10% of portfolios
- **December 2, 2020.** BlackRock CEO Larry Fink: "Bitcoin can possibly 'evolve' into a global market asset"
- **December 4, 2020.** MicroStrategy Inc. buys another \$500 million worth of bitcoin
- **December 9, 2020.** MicroStrategy Inc. offers \$550 million worth of convertible senior notes and plans to use the net proceeds to buy bitcoin
- **December 09, 2020.** BAKKT started Bitcoin options on futures
- **December 10, 2020.** MassMutual (\$235 billion AUM), a U.S. life insurance company, buys \$100 million worth of bitcoin
- **December 15, 2020.** Ruffer (\$27.4 billion AUM) confirms a bitcoin exposure of approximately \$745 million, around 2.7% of the firm's AUM
- **January 21, 2021.** BlackRock filed for registering two funds aimed at investing in bitcoin
- **January 29, 2021.** Visa started rewarding credit cards with bitcoin
- **February 07, 2021.** Miller Opportunity Trust permitted its Opportunity Fund to buy into the Grayscale Bitcoin Trust
- **February 08, 2021.** Tesla invested \$1.5 billion in bitcoin
- **February 11, 2021.** Mastercard said it will start allowing merchants to accept Bitcoin over its network
- **February 11, 2021.** Bank of New York said it will offer cryptocurrency custody in new product
- **February 17, 2021.** BlackRock said it began to "dabble" in bitcoin
- **February 23, 2021.** Square purchased an additional \$170 million in bitcoin

Bitcoin price and network hash rate, a three-year trend of which is pictured on the following page, determine the success miners have as a function of individual mining efficiency, hash rate, and power costs, and with the network in the 140 EH/s range, Neptune's 16 PH/s falls in the small industrial miner category, especially as compared with targets established by some of the major North American miners already on our coverage list. However, with a shortage of mining machines and the semiconductors that power them, we might see less of snapback in hash rate with the rainy season in China starting at any moment.

**Bitcoin Network Hash Taking a Breather, But We Expect a Quick Resurgence in China's Wet Season**

Source: Blockchain.com, June 12.

**Power consumption and the bitcoin mining debate.** Recent legislative activity, specifically a bill going to the New York State Assembly after winning state Senate approval last week precluding fossil fuel use in bitcoin mining activities following Chinese government bitcoin mining sanctions recently imposed, has elevated the conversation about energy use and proof-of-work crypto mining. Always controversial, Tesla CEO Elon Musk recently tweeted that Tesla has stopped accepting bitcoin payments to purchase Tesla vehicles—this action led to an exchange of ideas between Musk and an assortment of North American bitcoin CEOs recently, which we see leading to action by the newly founded Bitcoin Mining Council. According to research published in March 2021, the annual power consumption of the Bitcoin network was estimated to be 129 terawatt-hours (TWh), narrowly exceeding Norway's consumption of 124 TWh—comparative details of power consumption appear in the table below. At this juncture, it is unclear whether Neptune or Link for that matter intend on joining the Council.

**How Energy Consumption in Bitcoin Network Compared to Select Countries, Companies, and More**

Name	Annual Electricity Consumption (TWh)
China	6,543
United States	3,989
All of the world's data centers	205
State of New York	161
Bitcoin network	129
Norway	124
Bangladesh	70
Google (GOOG; not rated)	12
Facebook (FB; not rated)	5
Walt Disney World Resort (Florida)	1

Source: Cambridge Centre for Alternative Finance, Science Mag, New York ISO, Forbes, Facebook, Reedy Creek Improvement District, Worldometer, Visual Capitalist Article.

We suspect greater scrutiny is inevitable due to the bitcoin industry's perceived carbon footprint—we argue that bitcoin mining leads the way to renewable energy development while scavenging cheap, unused abandoned power. Per a report published by the University of Cambridge in 2020, 76% of crypto miners used some form of renewable energy to power their operations, and it accounts for roughly 40% of total energy consumed by the crypto mining industry. The supply and share of renewable energy must grow more than proportionately to catch up with the ever-growing need of the crypto mining industry.

**Recent bitcoin mining achievements.** As of May 26, Neptune Digital has 298 ASIC S17 Bitmain Antminer bitcoin mining machines currently hosted with Link Global Technologies, a publicly traded company based in Vancouver, but running its hosting operations in Calgary, Alberta. We see the hosting agreement as favorable based on consuming power priced at C\$0.04 per kWh in addition to a 10% all-inclusive lease and maintenance fee. We estimate the machines consume 0.8 MW and generate a total hash rate of 15,512 terahash per second (Th/s), or roughly 16 PH/s, but the agreement with Link allows for 1,500 miners consuming as much as 5 MW. Per press issued in late March, Neptune has an agreement to purchase 1,500 S17 that collectively should deliver 75 PH/s

and consume roughly 3.8 MW once fully deployed. Our forecast incorporates full deployment by the end of calendar 2021. The 5 MW power is supplied through Neptune's joint venture with Link Global called Pure Digital Power Corp. where Pure is a bitcoin mining infrastructure company with an emphasis on clean, sustainable energy defined here as a combination of solar, wind, and minimal natural gas. Additionally, Neptune has entered a non-binding LOI for up to 20MW of solar power at fixed-rate pricing through its 50% owned Pure joint venture. Neptune and Link have shortlisted two potential sites to build out renewable-powered bitcoin mining facilities. Pure has been aggressively expanding its operations, underpinned by an estimated 600MW of solar power, which is expected to come online in early 2022 in Alberta. Neptune is also developing one of a kind Pure carbon credit token or NFT. It is premature for us to comment on the potential economic value and profitability from the NFTs in this discussion.

More recently in late May, Neptune announced a "hash rate management agreement" with Luxor Technology Corporation that should lead to further expansion of Neptune's mining effort through hosting and mining machine management. Specifics regarding the amount of mining horsepower deployed was not released as the companies are expected to work together in finding hash rate under economically smart conditions.

Concurrently in late May, Neptune's staking operations currently generates \$360,000 per month, and Neptune held \$47.1M in cash and digital assets; Neptune held 100 BTC, 270 ETH, 141,000 ATOM, 2,055 DASH, 1,439,481 FTM, and positions in LTC, DOT, BCH, Stellar, NEO, OMG, and QTUM; as well as its investment in the Protocol Quant Fund. Neptune's staking operations translate as "mining" under proof of stake and represent the other revenue engine.

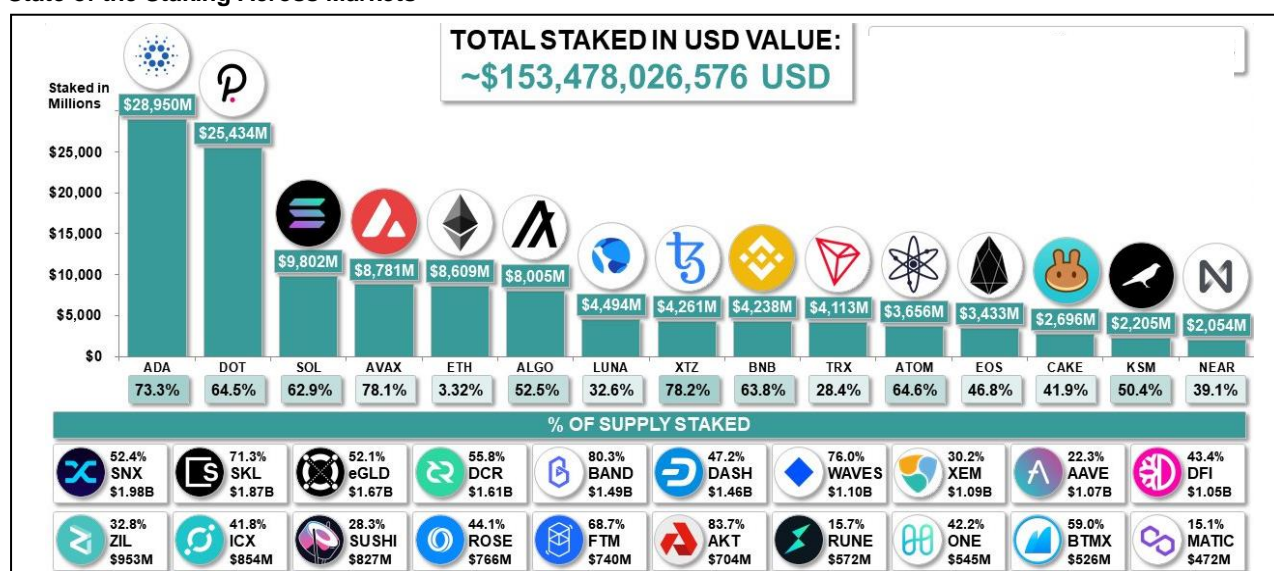


## 2. Staking crypto may generate more consistent returns.

Staking of cryptocurrencies offers a leg of passive earnings for the holders of the correlated cryptocurrencies. Staking is a consensus algorithm wherein new blocks are created and added to the blockchain. This occurs by which owned crypto is allocated to the “staking” process by the person possessing that cryptocurrency. In a manner similar to interest on bank fixed deposits, the holder of cryptocurrencies locks that specific crypto in a wallet for a given period, which then earns more coins as a reward. Unlike bitcoin or Ethereum mining under the current algorithm, staking does not require competent skills and expensive equipment. Moreover, staking algorithms are much simpler and of different construct from the bitcoin mining algorithm, which requires solving a complex crypto puzzle. The staking algorithm serves to secure the network and validate transactions by depositing and holding funds in a wallet or an exchange, and thereby facilitating security and operations of a proof-of-stake blockchain network.

**The proof-of-stake (PoS) consensus mechanism is driving growth of cryptocurrencies.** The proof-of-stake or staking consensus mechanism is gaining momentum in 2021, and more so with the intention of Ethereum to switch from proof of work (PoW) to the PoS method to mine cryptos. Per Staking Rewards' statistics, the staking market capitalization stood at \$638.0 billion on April 21, 2021, from roughly \$11.8 billion a year ago, comprising approximately 30% of the entire cryptocurrency market. As of April 19, 2021, the total staked value globally stood at \$153.5 billion. Clearly, 2021 is seeing a rise in staking, with several other crypto networks adopting the PoS mechanism to validate transactions in the block.

### State of the Staking Across Markets



Source: CryptoDiffer, as at April 19, 2021. Data from Staking Rewards

According to a statistic published by Staking Rewards on April 19, 2021, ADA, DOT, and SOL are the top three cryptocurrencies in total dollar amount staked, with ATOM making a place itself in the list of top 15 cryptocurrencies, per the chart above. Proof-of-stake (PoS) dominance has grown from a mere 14% in April 2020 to almost 60% by April 2021. The PoS mechanism rewards its validators for holding a stake in a block and verifying a transaction. There are no block rewards as miners do not solve any mathematical problems to mine and add a block in a chain. What is earned is a transaction fee paid in the respective coin. Again per Staking Rewards, the average reward earned by the PoS blockchain network has remained consistent at about 15 – 25% over one year.

**Increasing proof-of-stake investments—the diversification lesson applied.** In its recently published corporate update issued April 28, 2021, Neptune stated that it is generating approximately C\$400,000 per month in staking earnings. Neptune announced plans to invest C\$10 million, and we believe it has at this juncture, from the net proceeds of C\$37 million from its recent offerings, in proof-of-stake mining, such as blockchain infrastructure and the associated token ecosystems. These investments should increase the staking base over a period, resulting in a multiplier effect on staking earnings.

Neptune's foray in bitcoin mining further supports the growth in earnings from staking, as the company intends to hold the bitcoins mined in treasury for reinvestment (masternode operations and staking) and DeFi (BTC loans discussed later). Importantly, as we understand it, Neptune has spread its wealth of crypto across many exchanges, including Galaxy Digital Holdings, BlockFi Lending LLC., Celcius Network Ltd., Nexo Financial LLC., and Genesis Global Trading, Inc.



**Earnings increase through appreciation of crypto assets and compounds on the increase in number.** As at February 28, 2021, Neptune had crypto assets totaling C\$5.5 million in cold storage and hot wallets. The fair value of these crypto-assets grew to more than C\$5.0 million from C\$2.4 million in six months. Additionally, Neptune held crypto-denominated loans of roughly C\$4.0 million. Neptune, to date, has not converted any crypto assets into fiat money, as it plans to use coins to facilitate purchases of mining equipment.

**Digital Currency Holdings in Units and Canadian Dollar Measure of Fair Value**

	Units		Fair Value (C\$)		Per Unit Value		
	FY 2020	1H 2021	FY 2020	1H 2021	FY 2020	1H 2021	Appreciation
Currency	31-Aug-20	28-Feb-21	31-Aug-20	28-Feb-21	31-Aug-20	28-Feb-21	%
ATOM	134,762	140,960	1,266,680	3,154,112	9.4	22.4	138.1%
Fantom	-	1,439,481	-	771,295	-	0.5	NA
Bitcoin	5	7	76,584	409,566	15,316.8	58,509.4	282.0%
Dash	9,090	2,027	1,057,945	399,834	116.4	197.3	69.5%
Ethereum	67	197	37,935	354,275	566.2	1,798.4	217.6%
Tether	-	237,853	-	302,645	-	1.3	NA
Litecoin	38	223	3,048	46,671	80.2	209.3	160.9%
Bitcoin Cash	-	65	-	37,907	-	583.2	NA
Stellar	12,784	12,784	1,622	6,601	0.1	0.5	307.0%
NEO	44	44	1,164	1,941	26.5	44.1	66.8%
Omisego	77	77	518	418	6.7	5.4	-19.3%
QTUM	52	52	230	322	4.4	6.2	40.0%
<b>Total</b>			<b>2,445,726</b>	<b>5,485,587</b>			

Source: Neptune company filings February 28, 2021, H.C.W. calculations.

Safeguarding crypto assets. Crypto assets such as Cosmos, Atom, Dash, bitcoin, Ethereum, and others are held offline on a physical device known as cold storage wallets. As at February 28, 2021, Neptune had approximately C\$3.6 million worth of crypto assets in cold storage. Neptune believes that cold storage offers the most secure method of storage, though crypto assets stored in cold storage are not insured. These cold storage wallets are secured by Neptune's legal counsel, and a backup storage wallet is held at a different geographical location, thereby reducing risk of loss. Additionally, as at February 28, 2021, Neptune has stored approximately C\$2.0 million worth of crypto assets in hot wallets connected through the Internet and accessed through either a website or an app. Neptune parks some of its crypto assets in hot wallets to facilitate decentralized finance (DeFi), purchasing mining equipment using stable coins, and earning additional crypto interest or payments.

Returns garnered by staking require far less energy and machine maintenance as compared with high-power bitcoin miners, and staking computers can be servers, even second-hand servers kept in a co-location data center and maintained by the crew operating that location. A powerful, second-hand Dell server may cost only \$1,000 – 3,000 while hosting fees might run as little as \$5 per month. Bitcoin miners, given the current shortage cost as much as \$20,000 and might cost \$120 per month to run on inexpensive \$0.05 kWh power, and given the machines run extremely hot, they require more active maintenance. Without consideration of rewards, and based on this comparison alone, we see staking revenue presenting more easily managed returns given the lower input costs of maintenance and energy.

### 3. Masternode operation—as part of staking crypto—helps to bolster returns.

Neptune also builds and operates masternodes to support the Dash blockchain to facilitate payment processing on the Dash blockchain. A masternode is a computer that hosts the full blockchain ledger of a particular cryptocurrency, in this case Dash. As part of running a masternode, specific coins of that crypto are staked, and as reward for hosting a node, crypto is awarded. Neptune also runs masternodes for Cosmos ATOM community.

As part of Neptune's overarching diversification strategy, Neptune has begun mining bitcoin, as well as hosting masternodes for two cryptocurrencies: a portfolio of DASH masternodes and Cosmos ATOM validator nodes. Neptune has been reducing exposure to the DASH masternodes from 14 during the year ended August 31, 2019, to two at the end of the six months ended February 28, 2021. These investments were reduced, and proceeds were essentially used for de-risking the portfolio to include Cosmos ATOM validator nodes.

Cosmos is a cross-chain blockchain infrastructure that acts as a node between different networks that can connect thousands of blockchains to a single point and thereby enabling interoperability with other connected chains. The modularity of the framework allows developers to set up their blockchains and embed them in the ecosystem. The interoperability of different blockchain networks makes a scalable and user-friendly distributed ledger technology-based ecosystem with less bulky user interfaces.

Like other masternodes such as Dash, Cosmos is also based on a proof-of-stake process, wherein users store a stake and become a part of decision-making processes about network development for their validator services. In reward for the services offered, they receive ATOM tokens. Due to its modular and scalable features, the Cosmos ecosystem is experiencing adoption, which in turn, should power Cosmos ATOM price appreciation.

A masternode acts as a governing node in cryptocurrency networks and can be operated by collateralizing tokens. In certain blockchains, masternodes play a role at the time of the validation of the transaction. Neptune earns income (booked as other income, not revenue) from the provision of masternode server operations within digital currency networks. With masternode hosting, Neptune receives digital currency from each specific network in which it participates. Revenues are measured based on the fair value of the crypto received, and Neptune earns a Dash on successful completion and addition of a block to the blockchain. Digital tokens earned out of this process are recorded in the financial statements as digital currencies at their fair value and re-valued to market on each fiscal reporting date. Crypto masternodes host a full copy of the blockchain, known as the ledger, in real-time. This feature offers rewards and allows the masternode to provide allied services and support more advanced functions, such as carrying out specific tasks related to block validation. However, there is a limitation on the number of masternodes due to their singularity. Participation in hosting masternodes generates returns at a higher level as compared with plain staking programs because of their value-added features.

#### Dash Masternode Operating Details

	FY2019	FY 2020	1H 2021
	31-Aug-19	31-Aug-20	28-Feb-21
Dash Tokens	16,382	9,084	2,027
Dash Masternodes Operated (Average)	14	9	5*
Dash Tokens Earned	1,213	910	156
Dash Tokens per Masternode per Month	6.60	8.44	6.20
Monthly Dash Production (Average)	101	76	31
Earnings (C\$)	189,618	92,789	18,474

Note: The monthly average may not sync with annual data. \* While average number of masternodes operated during 1H 2021 were five, Neptune had two Dash masternodes operating at the end of six-months to February 28, 2021.

Source: Neptune company filings August 31, 2020 and February 28, 2021.

**Description of node production—May quarter not expected until sometime in July.** Per the table above, for the year ended August 31, 2020, Neptune operated an average of nine (2019: 14) Dash masternodes, which produced 910 (2019: 1,213) Dash tokens, with a monthly production of 76 (2019: 101) Dash tokens. Each masternode produced an average of 8.44 (2019: 6.60) Dash tokens per month. As of August 31, 2020, Neptune owned a total of 9,084 Dash tokens (2019: 16,382). Earnings of C\$92,789 (2019: C\$189,618) during the year generated from Dash production were included in other income.

During the six months ended February 28, 2021, Neptune operated an average of 5 (comparable period 2020: 15) Dash masternodes, which produced 156 (comparable period 2020: 483) Dash tokens, with a monthly production of 31 (comparable period 2020: 81) Dash tokens. Each masternode produced an average of 6.2 (comparable period 2020: 5.36) Dash tokens per month. At the end of the reporting period, Neptune owned a total of 2,027

Dash tokens (August 31, 2020: 9,084). During the reported six months, Neptune earned C\$18,474 (comparable period 2020: C\$79,329) from Dash production, included within other income. While Neptune had an average of five Dash masternodes during the six months ended February 28, 2021, at the end of the period the number fell to two Dash masternodes. A minimum of 1,000 Dash coins are needed to keep a single masternode up and working, and if the balance falls below the minimum, no rewards are credited. We understand that Neptune may have as few as two Dash masternodes operating at this juncture.

**Incorporating contribution from the Cosmos blockchain.** Neptune has been following a policy of shifting and shuffling between different masternodes to optimize ROI, and more recently, the company has substantially decreased its Dash token holdings to two masternodes from nine at the end of August 31, 2020, as the passive income of 6.5% per annum from staking the Dash tokens blocked to operate the masternode is comparatively lower than the passive income of 9% per annum generated by staking the Cosmos ATOM.

During the year ended August 31, 2020, Neptune added 11,510 (comparable period 2019: 2,858) ATOM tokens valued at C\$56,282 (comparable period 2019: C\$12,693). As a result, Neptune reported revenue of C\$149,071 during the year ended August 31, 2020, a decline of 26.3% compared to revenue of C\$202,311 posted in FY2019. During the six months to February 28, 2021, Neptune's revenue from ATOM tokens was C\$60,452, and this translated into total revenue of C\$78,926, versus revenue of C\$79,329 posted during the same period last year.

#### Cosmos ATOM Validator Node Operational Details

	FY2019	FY 2020	1H 2021
	31-Aug-19	31-Aug-20	28-Feb-21
ATOM Tokens	123,252	134,762	140,960
ATOM Earned	2,858	11,510	6,198
Earnings (C\$)	12,693	56,282	60,452

Source: Neptune company filings August 31, 2020 and February 28, 2021.

On a separate note, and in a bid to diversify risk while optimizing returns, Neptune has invested \$250,000 of its Dash holdings into Protocol Ventures Quant, a multi-strategy, quant driven digital asset hedge fund with a suite of market neutral, buy, hold, decentralized finance (DeFi) yield farming, and HFT (high frequency trading) market making strategies aimed at delivering superior risk-adjusted returns. As we understand the situation, Neptune intends to invest more going forward with Protocol Ventures Quant. Per its April 28 press release, Neptune's initial investment of \$250,000 in the Protocol Quant fund is now valued at \$2.34M based on the Protocol Quant report on March 31, 2021.

#### 4. Lending and decentralized finance (DeFi).

Decentralized finance (DeFi) is an ecosystem of financial applications built on top of a crypto-based blockchain. In simple terms, it is similar applications that run over the Internet, and in formal terms, decentral finance refers to infrastructure, processes, and technologies used to disintermediate financial transactions using smart contracts on cryptocurrency specific blockchains. Neptune, we posit, freely uses decentralized finance terminology to describe its crypto lending business, versus the construction of blockchain driven applications used to perform financial transactions and other functions. Normally, DeFi is defined as building and managing financial applications within the crypto-verse in a decentralized way, eliminating intermediaries such as banks, financial institutions, payment gateway providers, or investment funds to reduce or completely eliminate transaction costs associated with the traditional finance system. In short, DeFi is the evolution of conventional financial products—and many non-conventional—into the crypto universe driven by crypto currencies and the blockchains that support them. The smart contract construct provides greater transparency, interoperability, and openness, while growth is attracted by the adoption of crypto itself, the ease of executing transactions, the high speed of transactions, the lower cost of transactions, and the flexibility to exchange fiat currency for cryptocurrency and vice versa. The companies operating in this space are driven by problem-solving innovations, which shall help the wide-scale adoption.

##### Bitcoin Loans Generate Earnings

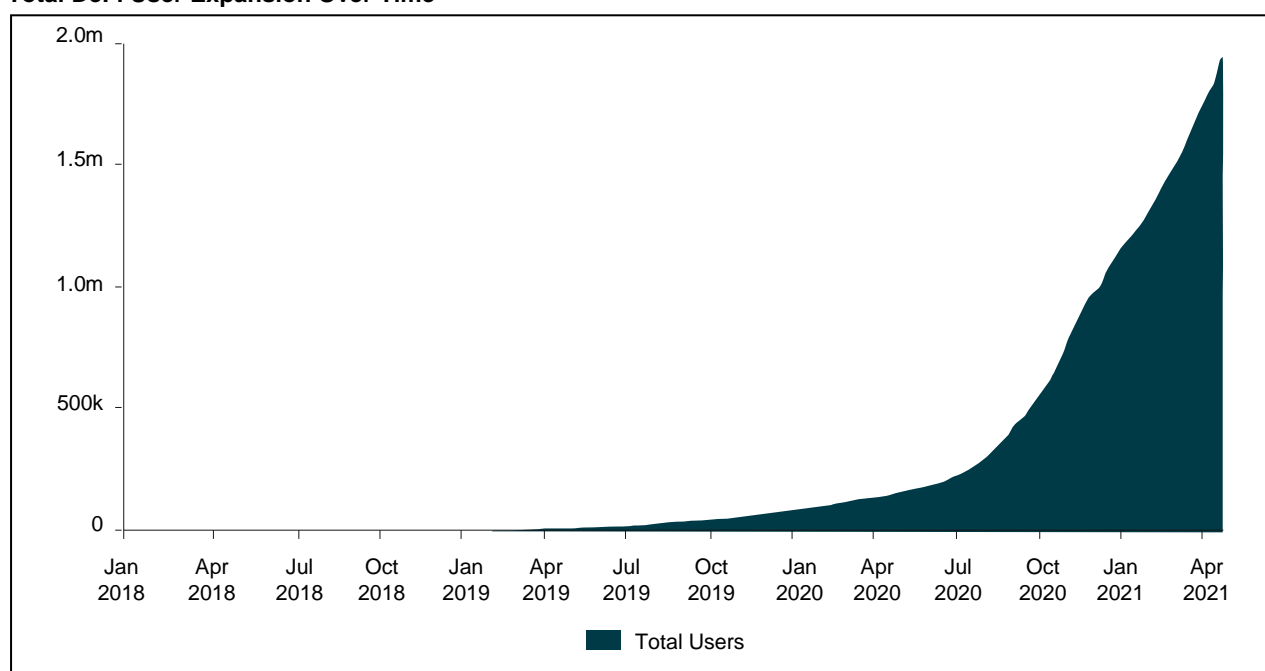
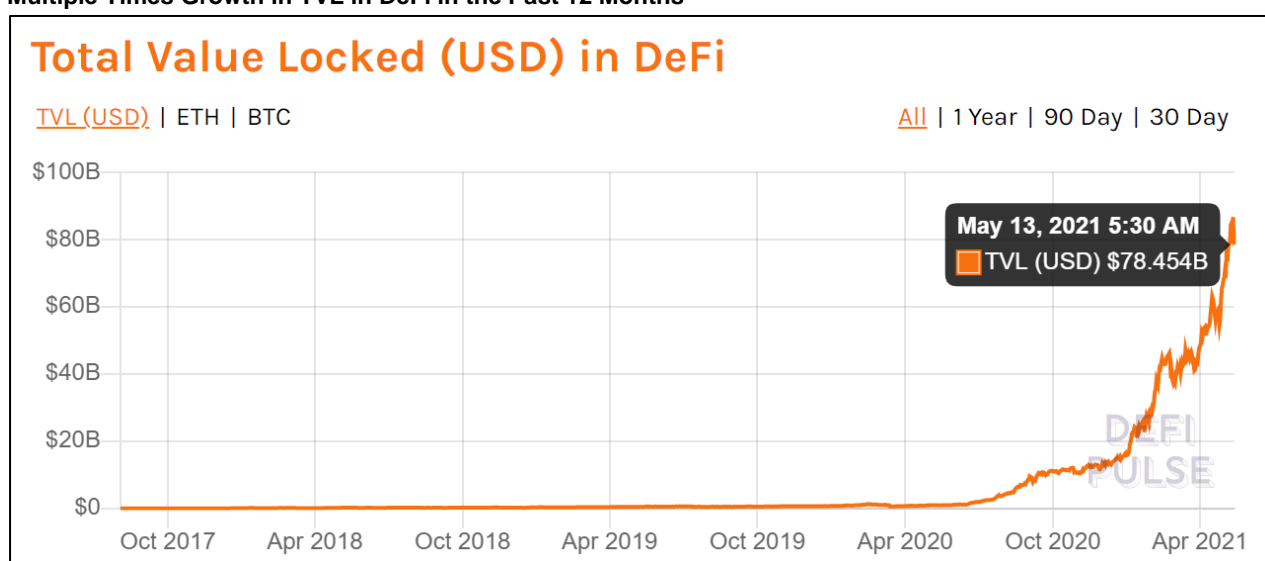
	BTC Loan (in units)			BTC Loan (in C\$ amount)		
	FY 2020	1Q 2021	2Q 2021	FY 2020	1Q 2021	2Q 2021
	31-Aug-20	30-Nov-20	28-Feb-21	31-Aug-20	30-Nov-20	28-Feb-21
Opening BTC Loan	-	50.27	50.27	-	765,638	1,281,824
BTC Loaned	50.00	-	20.00	629,005	-	486,396
Interest Accrued	0.46	0.88	0.99	7,092	15,035	42,990
Interest Received	(0.19)	(0.88)	(0.95)	(2,914)	(13,265)	(30,629)
Revaluation of Digital Currencies	-	-	-	132,455	514,416	2,249,079
<b>Closing Balance</b>	<b>50.27</b>	<b>50.27</b>	<b>70.31</b>	<b>765,638</b>	<b>1,281,824</b>	<b>4,029,660</b>

Source: Neptune company filings February 28, 2021, November 30, 2020.

Neptune began loaning its bitcoin (BTC) mid-July 2020 in order to earn interest on this particular crypto asset. The funds collected were used to buy ASIC mining machines or fund other asset acquisitions. Neptune has provided bitcoin loans to Genesis Global Trading, Inc., a multi-faceted cryptocurrency exchange in the State of New York. On July 10, 2020, Neptune loaned 50 BTC to Genesis, earning interest of 6.5% per annum, payable monthly in BTC. During the quarter ended February 28, 2021, the company extended its loan portfolio by issuing 20 BTC to Genesis, with an interest rate of 4% per annum. However, Genesis returned a 20 BTC loan on March 3, 2021. Neptune's bitcoin mining operations, aided by 1,500 ASICs in the upcoming period, will increase the cryptocurrency assets of the company, which can be loaned (treasury operations), increasing the traction of this business segment, thereby generating higher DeFi based earnings.

#### 5. DeFi, and its astounding growth, may provide alternative avenues for expansion.

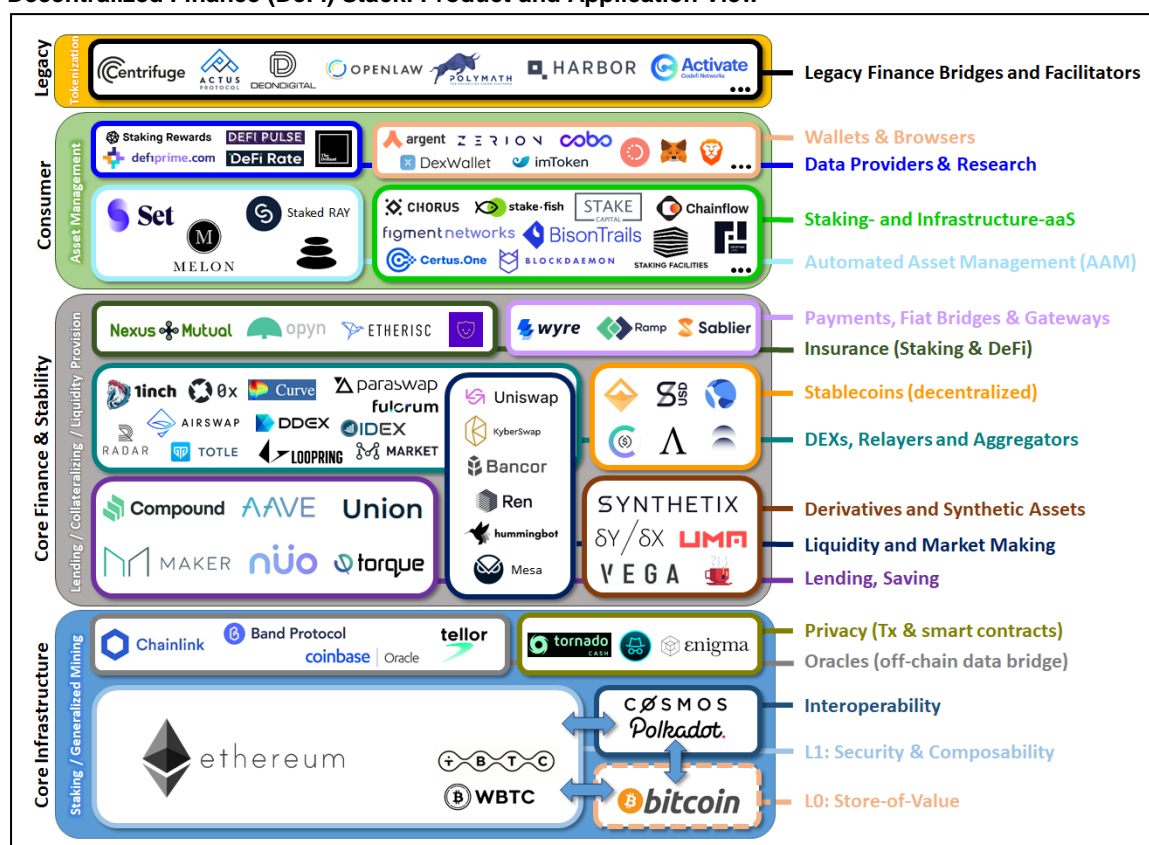
**The DeFi space should rise significantly in the coming years, as the number of users and total value locked (TVL) in the DeFi ecosystem expands.** DeFi, which is a blockchain-powered peer-to-peer financial system, is witnessing growing acceptance. The reasons propelling the growth of DeFi are the rapidly growing user base and the value of assets deposited by people in several DeFi applications. Between the last 12 months to April 2021, the total value locked (TVL) in DeFi systems increased to approximately \$51 billion as of April 2021, from approximately \$700 million as of April 2020, with a larger share contributed by collateralized lending, forming roughly 48% of the TVL, and decentralized exchange (DEXs), contributing roughly 38% of the TVL as of April 2021. According to Dune Analytics, the number of DeFi users grew to 1,000,020 DeFi users on December 4, 2020 from 220,938 users on June 25, 2020. And in a span of roughly four months, the user base doubled and touched 2 million on April 25, 2021, per the chart below.

**Total DeFi User Expansion Over Time**Source: *duneanalytics*.**Multiple Times Growth in TVL in DeFi in the Past 12 Months**Source: *DeFi Pulse Website* (<https://defipulse.com/>)

As at May 13, 2021, more than \$78 billion have been deployed across the gamut of DeFi applications that facilitate lending and borrowing services, exchange services, monetary banking services (e.g., the issuance of stablecoins), tokenization services, or other financial instruments such as derivatives and special prediction applications. This implies the DeFi concept spans a collection of ideas and projects that are loosely held, eliminating central authority over transactions, and all powered by blockchain technology. We see it as important to note that the industry is still in its nascent stage, and as DeFi evolves, further avenues may open, as new users and new applications join.

According to a whitepaper published by Chainlink, the TVL in the DeFi industry could rise to \$500 billion over the year. Currently, the DeFi ecosystem is a small part of the entire cryptocurrency community. In fact, by market capitalization, DeFi forms only 5% of the total cryptocurrency market, which we understand could rise to 25% over the next year.

## Decentralized Finance (DeFi) Stack: Product and Application View



Source: [stakingrewards.com](https://stakingrewards.com).

The diagram "Decentralized Finance (DeFi) Stack: Product & Application View" above, depicts the variety of different DeFi protocols (Maker, Compound, and Uniswap) now developed and contributing to the DeFi ecosystem.

Financial Primitive	Goal	Examples
Stablecoin	Providing a stable digital asset	Maker
Borrowing and Lending	Providing the possibility to earn interest on unused assets	Compound
Exchange	Providing the possibility to swap two digital assets	Uniswap

Source: H.C.W. research.

By way of definition, Layer 0 is the fundamental infrastructure that forms the blockchain network, including: protocols, connections, hardware, miners, and everything else. More important for our work is Layer 1, the actual operable blockchain itself, which is a trusted and secured combination of software and hardware that uses Layer 0 infrastructure. Layer 1 offers some of the basic financial functions such as a decentralized cryptocurrency for payments in the crypto ecosystem. Above Level 1 is Layer 2, a software construct that provides more functionality than the blockchain or cryptocurrency on which it rides. Layer 2 offers users slightly complex features and functionality that cannot be generalized, but really boils down to scaling transaction processing above and beyond the scope for which the underlying blockchain was designed. Beyond Layer 2, Layer 3 provides for running applications—the application layer—including sophisticated financial services built-in decentralized applications such as decentralized exchanges like Uniswap or prediction markets like Augur. Also included are functions comparable with today's banking apps, such as sending money in many forms, investing in assets, borrowing against these assets (leverage trading), etc.

**Riding on the back of the Ethereum network, DeFi apps are expanding their use case.** Currently, most decentralized finance applications (dApps) are built on the Ethereum network. According to TokenInsight, 50% of dApps are built on the Ethereum network itself, followed by TRON (21%), BSC (13%), EOS (8%), and others (8%). Moreover, per defiprime, there are 232 DeFi projects listed on their platform currently, and 214 are built using the Ethereum network. Only 26 projects are seen built on the Bitcoin network thus are, and the remaining 19 are built



on the EOS network. While it seems the bitcoin network is lagging, we expect bitcoin's Lightning Network (LN) Layer 2 protocol should enhance bitcoin's overall use. Ethereum dominates the dApps market, and the other networks are still lagging in terms of development and adoption. As per DeFi Industry Annual Research Report 2019 by TokenInsight, there were more than 250 projects in the pipeline that move the concept of DeFi to the practical use case. Of those total projects, 13% of the projects are working towards building the lending and payments infrastructure, making it the largest use case application of the entire DeFi ecosystem.

### **Led by a Visionary Team**

In leveraging the visionary and entrepreneurial experience of its core team, we see Neptune's management deeply passionate about the crypto industry and well positioned to drive revenue growth—both of them. In not relying on staking alone, the company has taken its first step in the bitcoin mining industry. The scaling up of this business in the crowded space and adapting to the ever-evolving technological needs requires sharp business acumen, and we see the newly formed partnerships bolstering the effort near and medium term. The traction and the success during the key initial years of bitcoin mining operations should pave the way for scaling the business, where we find another important Neptune differentiator in its publicly-traded status. Given the management's background and deep expertise in the cryptocurrency market, we are confident that they can steer the company's growth.

Specific experience and background. Founder of Brixton Metals Corp. and Neptune Digital Assets Corp. and current Neptune CEO, Cale J. Moodie's career in public market finance spans well over a decade in roles as CEO, CFO, Founder, Managing Director, and Audit Committee Chair for several companies listed on the Canadian stock exchange. He currently holds the position of President and CEO at Neptune Digital Assets Corp, CFO, and Director at Brixton Metals Corp, CFO at Minaurum Gold Inc., and President and CFO at Spartan Pacific Financial Ltd. Mr. Moodie has played an instrumental part in raising capital and ultimately the sale of successful companies. His entrepreneurial experience dates back to 2001 when he started his temporary placement services, DentalWest Personnel, and successfully sold it in 2004. Since 2013, Mr. Moodie has been an avid follower and investor in the digital currency and blockchain space. He attempted to launch his first publicly traded bitcoin company in 2013 when the industry was still nascent. Mr. Moodie holds a Bachelor of Science from UBC and became a Chartered Accountant while working for KPMG in Vancouver before his foray into capital markets. His strong financial background and history in closing deals successfully we find a company asset. His leadership would strengthen the relationships of Neptune Digital with other key stakeholders towards the successful development of its platform.

Mr. Moodie is joined in his vision by Kalle Ragage, who is a COO and CFO at Neptune. Mr. Ragage's career history spans serving multiple software and financial tech companies, and he was President of Payfirma, a payment processor, until its acquisition in 2018. He played an instrumental part at Sabela Media, which was ultimately acquired by 24/7 Real Media. In addition, Mr. Ragage was a Venture Capitalist at BDC Venture Capital and Nokia Ventures, focusing on internet, mobile, and enterprise software. He holds an MBA from IESE Business School in Spain and a degree in Computer Science from UBC.

Neptune enlists a communications and investor relations contact, but aside from that, all functions are outsourced, including preparation of the financial statements. As discussed below, recent changes in financial presentation create discrepancies in sequential comparisons shown on our financial projections. Lastly, even the servers on which Neptune operates its masternodes are outsourced to the likes of Amazon Web Services (AWS) and the like.

### Attractive Valuation Parameters Compensate for Crypto Risk Profile

Our bullish view reflects the value we see in Neptune's mining activities, both proof of work and proof of stake, underpinned by our bullish take on crypto in general. Important too, we think, is the diversity in activities and holdings we imagine difficult for an individual investor to duplicate while also distancing the company from many of the crypto miners in our coverage that have a central focus on bitcoin alone. Lastly, though importantly, while only two people manage this company, we suspect the expert level of due diligence done on each altcoin investment transcends that which we could execute ourselves, and for that reason, we see high risk mitigation against one-off, esoteric crypto coin implosion the likes of which has made recent headlines. Our positive stance is supported by multiple views on valuation:

1. Historical trading action easily supports trading levels well above the current C\$0.55 per share. Mid-April 2021, Neptune shares traded as high as C\$2.22. Certainly, bitcoin's recent price decline, illustrated earlier in this report, has reflected on mining companies' stock price. However, given a continued bullish outlook, we see money flows return to lesser known, smaller cap stocks that present diversified plays in crypto.
2. Highly conservative forecasts included for proof-of-stake earnings. We see our forecast, incorporating less contribution from Neptune's staked crypto versus the company's C\$300,000 to C\$400,000 publicly stated expectation. Our take is one not so much a reflection of skepticism, but poor visibility. Once Neptune reports a full quarter including staking contribution (in other income), we imagine earnings become more obvious and projections both more solid and realistic.
3. Neptune recently completed a share offering that yielded roughly C\$37 million. We know the company has spent millions on building both its bitcoin mining fleet while accumulating return-yielding crypto it has staked, but how much Neptune has spent versus its current cash balance is unknown to us. By rough estimation, we think Neptune holds as much as C\$25 million in cash, despite its recent purchases, or roughly C\$0.25 – 0.30 per share in cash. The current share level, less cash, implies that the Street is not attributing much value to either Neptune's holdings or its business outlook.
4. Simple price-to-earnings calculations suggest a depressed valuation. Given a model that approaches one closer to that of a extremely high gross margin software business or annuity cash flow type—staked earnings mimic the receipt of interest, or a royalty payment, on dedicated assets—versus the repeated capital equipment costs necessary to maintain pace with technological improvements associated with bitcoin mining compounded by the high power costs, we expect companies akin to Neptune to attract higher multiples. Trading at about 11x on our FY22 C\$0.05 earnings estimate, Neptune's P/E falls well below industry leader, Riot Blockchain, where we would expect at least parity.

**Small scale of operations and limited operating history.** Neptune was established in 2017, meaning the limited history of operations and riskier growth prospects. In the last four years of operations, Neptune has been largely dependent on earnings through staking and operating masternodes. In the very recent past, it has initiated BTC mining operation and loan portfolio as it entered the DeFi market, and our forecasts are based on 16 PH/s contribution of bitcoin mining growing to 75 PH/s by calendar year end bolstered by staking contribution, like interest income, on the other income line on the profit and loss statement (see enclosed forecasts for details). Neptune has recently raised C\$40 million, and roughly 20% of the C\$37 million collect by Neptune was deployed in buying a diversified pool of other crypto on an opportunistic basis, as we understand it. Prior to funding, and as of recent company commentary, the overall asset base of the company was roughly C\$12 million, with 75 – 80% deployed in cryptocurrency assets.

**Buy rating with acknowledgement of inherent crypto and scale risks.** We see Neptune offering investors an avenue to participate in broad crypto appreciation as the company manages a portfolio of diverse cryptocurrencies, as mentioned. From a diversification perspective, Neptune's shares provide some risk mitigation as viewed against a pure bitcoin mining company, where we actively follow many of the publicly followed ones. Interestingly too, staking is a "greener" activity as compared against energy consumed in bitcoin mining, as less power is consumed, and the power used is streamed directly from the grid to server farms. As we understand Neptune's intentions to expand bitcoin mining in the U.S., as part of that mandate is the search for renewable energy in powering bitcoin mining rigs.

All that aside, our forecast, potentially conservative from one perspective, and potentially aggressive from another, has Neptune generating EPS of C\$0.05 in its fiscal year ending August 2022; Neptune posted C\$0.01 in EPS for August 2020, and our estimates for 2021 show a "valuation inflated" EPS estimate of C\$0.08, one that we choose to ignore at this juncture given the influence on the crypto marked-to-market endeavors in the first half of the August 2021 fiscal year. Meanwhile, we have slowly moved to adopt 2022 projections—most of them with year-ending

2022—where we have not yet worked out full calendar 2022 year estimates for Neptune at this juncture. Pushing timing issues aside for now, our FY22 C\$0.05 estimate reflects a rough 11x price-to-earnings multiple at current prices, depressed relative to other crypto companies we monitor. We find our C\$1.00 price target conservative from a trading view given the stock flirted with a level well above C\$2.00 and as high C\$2.22 just two months ago. On our C\$0.05, our C\$1.00 target represents 20x earnings and falls in line with a broad group of crypto miners, such as Riot Blockchain that trades north of 17x on our 2022 earnings estimates but has greater risk exposure given its exclusive concentration in bitcoin.

One minor point to make on historical presentation. Neptune, we understand, has debated how staking income should be reported on its financial statements with its auditors, noting that Neptune's CEO is a chartered accountant well versed in revenue recognition policies. As a reminder, Neptune's financial statement preparation is outsourced, and the most recent group has elected to show staking earnings as interest income would be shown while Neptune's November quarter this year showed staking income as revenue; hence, the incongruity in historical presentation. Neptune's bitcoin mining endeavors are nascent, and the company has yet to publicly report the results of its initial efforts; however, we have included an escalating hash rate and reflected revenue as bitcoin mining rewards are recognized across the bitcoin mining industry.

### **Broad Risk Profile Exacerbated by Crypto Volatility**

Neptune's limited operating history is subject to several risks, including insufficient cash accumulation, under-capitalization, inability to generate earnings, and on-availability of financial resources. The company's financial resources may continue to be deployed for the development of its business and related activities, which, as normal, is expected to be covered by earnings and cash generation going forward. Further, there is no assurance that, in the absence of adequate earnings and cash inflows, Neptune may be able to raise the required funds for its future expansion.

**Risk compounded by bitcoin volatility and concentration.** Though Neptune has great exposure to ATOM at present, it may eventually have substantial bitcoin assets post-deployment of 1,500 bitcoin miner machines. Neptune is at risk due to volatility in bitcoin price, the speculative nature of the underlying asset, and the potential fluctuations caused by larger media coverage. Any decline in bitcoin pricing may adversely affect investor confidence, and subsequently, the value of Neptune's bitcoin inventory, its stock price, and profitability. Per recent history visible in bitcoin price fluctuations—predominately lately—digital asset prices are affected by various forces, including global supply and demand. Miners are “producers” of bitcoin, tending to address the supply side; however, Neptune's strategy includes trying to hold as much bitcoin as possible to gain from its expected price appreciation. While central bank actions (monetary policy) such as interest rates, exchange rates; government actions (fiscal policy) and the global political and economic conditions all can influence hard asset prices, and while digital, bitcoin is considered by many financial institutions to be an alternative asset, Neptune's profitability is directly related to the current and future market price of bitcoin. A decline in bitcoin could negatively impact Neptune's operation, and to date, as we understand it, Neptune has not hedged the conversion of any of its cryptocurrency due to minuscule operations—we imagine this may change going forward as the bitcoin inventory and the BTC loan portfolio of the company grows. Finally, bitcoin has a limited history, and the fair value historically has been volatile. The historical performance of bitcoin or Neptune's stock is not indicative of future performance.

**Accompanying computer and network related risks.** Bitcoin, in hot storage, is held on the active Internet. All are familiar with the various security breaches, computer malware, and computer hacking attacks that have been a concern in the cryptocurrency space since the launch of the bitcoin network, including bitcoin use for illicit activities, as was the case with Silk Road. Any security breach caused by hacking could cause loss of Neptune's cryptocurrencies stored in hot wallet. Further, criminal activity drawing attention could negatively affect the price of cryptocurrencies and Neptune's stock price given its exposure.

**Not immune to operating risk as well; the scale of machines operated and power required.** Neptune must keep expanding its scale of operations dynamically to address the challenge posed by growing network hash rates. Further, Neptune is dependent on energy supply from the “grid” in Alberta to power the company's major facility. While those contracts are well established, Neptune is exposed to any operational risk the power suppliers might face. Interestingly enough, we do not expect Neptune to face the catastrophe that has befallen many areas in Texas because the cold weather, given hot summers and cold winters, is the norm in Alberta, as we understand it. Neptune is addressing this risk partially by having initiated a JV with Link for setting up solar power plants, 5 MW, in the beginning, to be scaled up to 20 MW as the bitcoin mining business grows.

**Rising environmental concerns due to the high consumption of electricity for bitcoin mining may directly impact the blockchain technology industry.** Per the data, a single bitcoin transaction has the same carbon footprint as 680,000 Visa transactions or bingeing YouTube for 51,210 hours. According to research published in March 2021, the annual power consumption of the bitcoin network was estimated to be 129 terawatt-hours (TWh), narrowly exceeding Norway's consumption of 124 TWh. Per a report published by the University of Cambridge in 2020, 76% of crypto miners used some form of renewable energy to power their operations. It accounted for only 39% of total energy consumed by the crypto mining industry. The concerns and actions by the governments and regulators are inevitable due to the bitcoin industry's carbon footprint. Any law or regulation passed by the government to contain the environmental impact may adversely affect the blockchain industry.

**Government regulations may curtail the freedom of cryptocurrencies.** Currently, blockchain technology assets are independent of any regulatory and controlling authorities. However, in the future, this new and emerging asset class may come under the purview of regulatory and taxation policies, which may, to an extent, change the purchase, sale, trading, and ownership of digital currencies. These policy and regulatory changes may directly impact Neptune's assets and operating cash flows.

**The growing scale of business and enhanced capital needs may dilute existing shareholders' value.** Neptune is yet to witness positive operating cashflows and largely dependent on external financing to support its

business operations. As such, the company may require issuing securities at less than favorable terms to support its business plan. Just before its recent round of share issuance, Neptune had 95.3 million shares outstanding, which grew to an aggregate of 124.9 million post completion of the offering. Apart from this the company has over 21.5 million warrants outstanding as at April 25, 2021 and about 5.9 million options. Roughly 25% of the outstanding warrants are priced at less than C\$0.30, but could become a source of capital. Further, Neptune has initiated bitcoin mining operations and is adding more machines, which may require additional equity financing to be raised in the future. This may further dilute existing shareholders' value.

**Public Companies Mentioned in This Report**

BlackRock Inc. (BLK; not rated)  
Brixton Metals Corp. (TSC-V: BBB; not rated)  
Coinbase Global (COIN; not rated)  
Galaxy Digital Holdings Ltd. (BRPHF; not rated)  
Link Global Technologies, Inc. (LNK-CNQ; not rated)  
Mastercard Incorporated (MA; not rated)  
MicroStrategy Incorporated (MSTR; not rated)  
Minaurum Gold Inc. (TSX-V: MGC; not rated)  
Riot Blockchain Inc. (RIOT; Buy)  
Square Inc. (SQ; not rated)  
Tesla Inc. (TSLA; not rated)  
Visa Inc. (V; not rated)



## Neptune Digital Assets Corp.

Quarterly Earnings Model  
(C\$ thousands, except per share data)

6/25/2021 FY Ending 08/31: NDA-TSE	8/31/2020A					8/31/2021E				Estimate	Estimate
	Q1A 11/30	Q2A 2/29	Q3A 5/31	Q4A 8/31	YEAR 8/31/2020	Q1A 11/30	Q2A 2/28	Q3E 5/31	Q4E 8/31	YEAR 8/31/2021	YEAR 8/31/2022
Revenues	\$39.4	\$0.0	\$35.4	\$74.2	\$149.1	\$29.6	\$0.0	\$128.6	\$510.1	\$668.3	\$6,330.7
Site op. costs	2.9	0.0	0.0	3.2	6.16	0.38	0.0	18.7	65.4	84.51	1,005.0
Mining profit	36.5	0.0	35.4	71.0	142.91	29.24	0.0	109.9	444.6	583.78	5,325.7
Depreciation	0.0	0.0	0.0	0.0	0.00	0.00	0.0	0.3	0.3	0.60	2.4
Gross profit	36.5	0.0	35.4	71.0	142.91	29.24	0.0	109.6	444.3	583.2	5,323.3
Operating Costs											
Expenses	107.2	145.9	113.8	171.1	537.99	105.01	191.4	190.0	190.0	676.38	1,000.0
Share-based comp.	53.8	(147.1)		20.8	-72.44	10.42	1,290.3	0.0	0.0	1,300.68	0.0
Operating Inc.	(124.5)	1.2	(78.4)	(120.9)	-322.63	-86.19	(1,481.6)	(80.4)	254.3	(1,393.9)	4,323.3
Other inc.	1.9	40.9	(110.7)	(9.6)	-77.41	15.63	108.7	167.4	256.3	547.99	1,091.5
Unreal. gain-loss	0.0	0.0		0.0	0.00	370.54	4,376.3	0.0	0.0	4,746.83	0.0
Dig. curr. chng.	(227.8)	580.7		210.1	562.99	-7.75	283.6	0.0	0.0	275.84	0.0
Total other	(225.9)	621.6	(110.7)	200.6	485.58	378.41	4,768.5	167.4	256.3	5,570.66	1,091.5
Pretax Income	(350.4)	622.8	(189.1)	79.7	162.95	292.22	3,286.9	87.0	510.6	4,176.8	5,414.8
Tax	0.0		0.0	0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.0
Net Income	(350.4)	622.8	(189.1)	79.7	162.95	292.22	3,286.9	87.0	510.6	4,176.8	5,414.8
Reval. of dig. Curr.	0.0	0.0	0.0	494.3	494.30	-0.05	2,782.0	0.0	0.0	2,782.00	
Comp. inc	(350.4)	622.8	(189.1)	574.0	657.25	292.18	6,068.9	87.0	254.6	6,958.77	5,414.8
IFRS EPS (C\$)	(\$0.00)	\$0.01	(\$0.00)	\$0.01	\$0.01	\$0.00	\$0.03	\$0.00	\$0.00	\$0.07	\$0.05
FD Shares out (K)	80,710.0	80,943.0	83,896.7	85,913.6	82,865.8	85,869.2	94,356.3	97,048.9	97,548.9	93,705.8	110,048.9
<b>MARGIN ANALYSIS</b>											
Gross mining margin	92.5%	n.a.	100.0%	95.7%	95.9%	98.7%	n.a.	85.5%	87.2%	87.4%	84.1%
Gross margin	92.5%	n.a.	100.0%	95.7%	95.9%	98.7%	n.a.	85.2%	87.1%	87.3%	84.1%
Op. Exp. % sales	408.3%	n.a.	321.2%	258.6%	312.3%	389.7%	n.a.	147.8%	37.2%	295.8%	15.8%
Operating margin	-315.8%	n.a.	-221.2%	-162.9%	-216.4%	-291.0%	n.a.	-62.5%	49.9%	-208.6%	68.3%
Pretax margin	-889.0%	n.a.	-533.4%	107.4%	109.3%	986.7%	n.a.	67.7%	100.1%	625.0%	85.5%
Tax rate	0.0%	n.a.	0.0%	0.0%	0.0%	0.0%	n.a.	0.0%	0.0%	0.0%	0.0%
Net margin	-889.0%	n.a.	-533.4%	107.4%	109.3%	986.7%	n.a.	67.7%	100.1%	625.0%	85.5%
<b>PERCENT CHANGE</b>											
Total revenue	-43.0%	-100.0%	-26.3%	41.1%	-26.3%	-24.9%	n.a.	262.8%	587.4%	348.3%	847.3%
Cost of site ops	n.a.	-100.0%	-100.0%	47.3%	-39.7%	-87.1%	n.a.	n.a.	1937.7%	1272.5%	1089.3%
Mining profit	-47.3%	-100.0%	-19.9%	40.8%	-25.6%	-19.8%	n.a.	210.1%	526.3%	308.5%	812.3%
Gross profit	-47.3%	-100.0%	-19.9%	40.8%	-25.6%	-19.8%	n.a.	209.2%	525.9%	308.1%	812.8%
Operating profit	-48.7%	-100.4%	-60.3%	-5.3%	-60.9%	-30.8%	n.a.	2.6%	-310.4%	332.0%	-410.2%
Net Income	-89.9%	-211.3%	-108.8%	-103.2%	-103.7%	-183.4%	427.8%	-146.0%	540.9%	2463.3%	29.6%
Share Count	0.6%	0.7%	3.9%	6.4%	2.9%	6.4%	16.6%	15.7%	13.5%	13.1%	17.4%
EPS	-90.0%	-210.6%	-108.5%	-121.8%	-114.7%	-178.4%	352.8%	-139.8%	-60.9%	836.3%	-33.7%
Sequential Sales Growth	-25.0%	-100.0%	#DIV/0!	109.4%	100.9%	-60.1%	-100.0%	n.a.	296.7%		

Source: Co. reports and H.C.W. estimates.

Balance Sheet (C\$'s Thousands)						
	8/31/2020A				8/31/2021E	
	Q1A 11/30	Q2A 2/29	Q3A 5/31	Q4A 8/31	Q1A 11/30	Q2A 2/28
<b>Current Assets</b>						
Cash	403.044	346.887	291.789	\$117.6	\$43.5	\$129.9
Accounts rec. and prepaid exp.	57.156	63.97	68.982	77.9	108.0	88.8
Digital currencies	173.251	290.922	392.319	121.8	0.0	0.0
Loan rec.	0	0	0	765.6	1,281.8	4,029.7
Short-term investments	0	0	0	392.1	248.2	2,375.4
<b>Total Current Assets</b>	633.5	701.8	753.1	1,475.0	1,681.5	6,623.8
Property, plant and equip.	0	0	0			
Digital currencies	1841.25	2344.166	2123.15	2,324.0	2,435.4	5,485.6
<b>Total Assets</b>	2,474.7	3,045.9	2,876.2	3,799.0	4,116.9	12,109.4
Accounts payable	135.693	231.265	153.412	233.8	294.6	300.5
Loans payable	100	100	0			
Accrued liabilities						
LT debt						
<b>Total Liabilities</b>	235.693	331.265	153.412	233.8	294.6	300.5
					0.0	0.0
<b>Total equity</b>	2239.008	2714.68	2722.828	3,565.1	3,822.4	11,808.9
<b>Total Liab. &amp; Equity</b>	2,474.7	3,045.9	2,876.2	3,799.0	4,116.9	12,109.4
Cash & marketable securities	\$403.0	\$346.9	\$291.8	\$117.6	\$43.5	129.9
Change in cash (QoQ):	(107.0)	(56.2)	(55.1)	(174.2)	(74.1)	\$86.5
Cash per share	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Tot digital asset	\$2,014.50	\$2,635.09	\$2,515.47	\$2,445.73	\$2,435.44	\$5,485.6
Change in digital asset (QoQ):		620.6	(119.6)	(69.7)	(10.3)	3,050.1
Debt	100.0	100.0	0.0	0.0	0.0	0.0

Source: Company reports.

## Important Disclaimers

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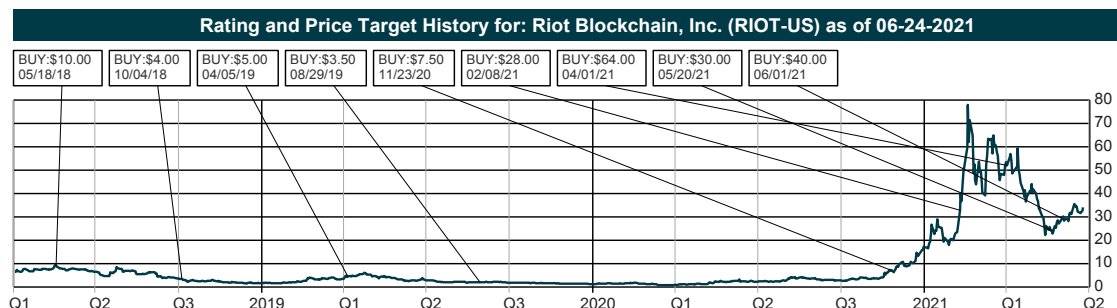
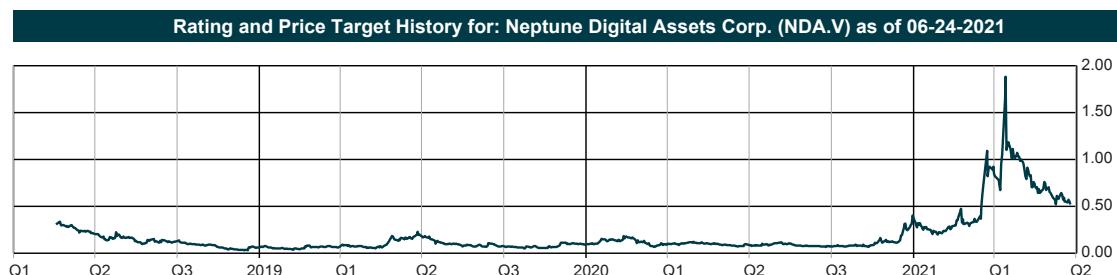
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**Market Outperform (Buy):** The common stock of the company is expected to outperform a passive index comprised of all the common stock of companies within the same sector.

**Market Perform (Neutral):** The common stock of the company is expected to mimic the performance of a passive index comprised of all the common stock of companies within the same sector.

**Market Underperform (Sell):** The common stock of the company is expected to underperform a passive index comprised of all the common stock of companies within the same sector.



**Related Companies Mentioned in this Report as of Jun/24/2021**

Company	Ticker	H.C. Wainwright Rating	12 Month Price Target	Price	Market Cap
Riot Blockchain, Inc.	RIOT-US	Buy	\$40.00	\$34.02	\$3264

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Distribution of Ratings Table as of June 24, 2021				
Ratings	Count	Percent	IB Service/Past 12 Months	
			Count	Percent
Buy	493	90.13%	198	40.16%
Neutral	50	9.14%	14	28.00%
Sell	0	0.00%	0	0.00%
Under Review	4	0.73%	1	25.00%

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