Exhibit 220

[redacted]

[redacted]

MEMORANDUM

Date: April 8, 2019

To: [redacted]

From: [redacted]

Re: *Howey* Analysis: XRP

You have asked for an analysis of whether XRP should be treated as a "security" under the federal securities laws. The analysis that follows is based on information that we have been able to obtain from the public record. Because the analysis in this memorandum is heavily fact-dependent, to the extent that the information we have relied upon is erroneous, or to the extent additional information exists that we have not considered but that bears upon the analysis contained herein, the conclusions contained in this memorandum may require modification.

Most digital assets currently in circulation today do not clearly fall into any of the more common types of instruments within the definition of "security" in the Securities Act of 1933 (as amended, the "Securities Act") or the Securities Exchange Act of 1934 (as amended, the "Exchange Act"), such as notes, stock or bonds.[1] However, as the Securities & Exchange Commission (the "Commission" or "SEC") concluded in its July 2017 report[2] (the "DAO report") pursuant to Section 21(a) of the Exchange Act analyzing digital assets issued by The DAO and its December 2017 order[3] instituting cease-and-desist proceedings against Munchee, Inc. (the "Munchee order"), distributions of digital assets may involve illegal securities offerings.

Following the Commission's guidance in the DAO report and the Munchee order, we analyze whether a digital asset is a security for federal securities law purposes first by determining whether the digital asset has any of the attributes of traditional equity or debt securities, such as ownership rights, rights to a share of profits or rights to periodic payments. If the digital asset does not exhibit these types of characteristics, we analyze the digital asset based upon the test for an "investment contract" developed in the Supreme Court's decision in *SEC v. W.J. Howey*

[1] Despite differences, the Supreme Court has indicated that the definitions of "security" under the Securities Act and the Exchange Act are treated the same. *SEC v. Edwards*, 540 U.S. 398 (2004), citing *Reves v. Ernst & Young*, 494 U.S. 56, 61 n.1 (1990).

[2] Report of Investigation Pursuant to Section 21(a) of the Securities Exchange Act of 1934: The DAO, Exchange Act Rel. No. 81207 (July 25, 2017) (the "DAO report").

[3] *In re Munchee, Inc.*, Securities Act Rel. No. 10445 (Dec. 11, 2017) (the "Munchee order").

Co.[4] and its progeny. The *Howey* test defines an "investment contract" as a contract or scheme that involves each of the following features:

- first, there must be an *investment of money*: the investor must give up some tangible and definable consideration;
- second, there must be a *common enterprise*: the investor's fortunes must be interwoven with those of other investors (horizontal commonality) and/or the efforts of the promoter of the investment (vertical commonality);
- third, the investor must have a *reasonable expectation of profits*: the investment must be purchased with the reasonable expectation that the value of the investment will increase or that the investor will receive earnings from the investment; and
- fourth, the investor's expectation of profits must be based predominantly upon the *entrepreneurial or managerial efforts of the promoter or other third parties*.[5]

As demonstrated by the Commission's *Howey* analysis in the Munchee order, "[d]etermining whether a transaction involves a security does not turn on labelling . . . but instead requires an assessment of the economic realities underlying a transaction . . . . All of the relevant facts and circumstances are considered in making that determination."[6] Using the same analysis, we have considered the features and terms of XRP, the facts and circumstances surrounding its original development and distribution, its current functionality and usage and the current role, if any, of its original promoters, and have concluded that there are reasonable grounds for determining that XRP does not satisfy each prong of the *Howey* test, and thus there are reasonable grounds for concluding that XRP should not be considered an "investment contract" or "security" within the meaning of the Securities Act or the Exchange Act.

Although some of the technology and ideas in the Ripple Network, a purpose-built network hosting XRP's distributed ledger solutions, including a public transaction ledger, are older than bitcoin (BTC), the Ripple Network was created as a response to BTC, with improved payment-transfer functionality. XRP's technology allows transfer and exchange of multiple currencies instead of just one (e.g., BTC on the BTC blockchain) and has faster transaction times and reduced electricity usage. XRP's technology is also designed to facilitate enterprise usage, including by banks and other financial intermediaries.[7]

The Ripple Network allows participants to transmit money on a peer-to-peer basis over the internet without trusted third-party intermediaries. Transactions typically settle in seconds, rather than in minutes or hours as with the BTC network.[8] The network supports a digital

---

[4] 328 U.S. 293, 301 (1946).

[5] *Id.* at 301 ("The test [for an investment contract] is whether the scheme involves an investment of money in a common enterprise with profits to come solely from the efforts of others."); see also *Int'l Bhd. of Teamsters, Chauffeurs, Warehousemen & Helpers of Am. v. Daniel*, 439 U.S. 551, 558-562 (1979); *Edwards*, supra note 1, 540 U.S. at 393.

[6] Munchee order, *supra* note 3, at 9 (internal quotation marks and citations omitted).

[7] *See generally The Ripple Protocol: A Deep Dive for Finance Professionals*, THE-BLOCKCHAIN.COM (Nov. 2014), http://www.theblockchain. com/docs/Ripple%20Protocol%20-%20Deep%20Dive%20For%20Financial%20Professionals.pdf.

[8] See F. Armknecht et al., *Ripple: Overview and Outlook*, in TRUST AND TRUSTWORTHY COMPUTING 169 (M. Conti, M. Schunter,& I. Askoxylakis I. eds., 2015).

asset native to the network, called XRP, but can also be used to transfer any other currency or asset, such as U.S. dollars. The protocol and software used to access the Ripple Network and to participate on the network in various capacities is free and open-source.

The Ripple Network is built on the concept of "trust lines." While XRP can be sent natively over the Ripple Network, all other currencies are represented as amounts due from particular counterparties.[9] Participants set up "trust lines" indicating which institutions they are willing to have credit exposure to. For example, imagine two users, a U.S. user and a European user. The U.S. user has a U.S. dollar trust line extended to her U.S. bank, indicating her willingness to have credit exposure to the U.S. bank (as would be the case with an uninsured deposit). After creating that trust line, the U.S. user would follow the U.S. bank's procedures to deposit U.S. dollars and receive a U.S. dollar XRP balance in her account. The European user has a U.S. dollar trust line to Bitstamp, a European digital asset exchange, indicating a willingness to have credit exposure to Bitstamp. If the U.S. user sends U.S. dollars to the European user, the European user will receive U.S. dollars that are in the form of an amount due from Bitstamp. Assuming that Bitstamp has extended trust to the U.S. bank and XRP was not used as a bridge currency in the transaction, the transaction results in Bitstamp having a U.S. dollar amount due from the U.S. bank. The European user does not need to trust the U.S. user, because there is a chain of trusted parties between them. The Ripple Network finds the most efficient and cheapest path from sender to recipient. Original versions of the protocol required all participants to have extended trust to each other (except with respect to XRP transactions) but later versions introduced market makers who were willing to take credit risk to multiple parties and also make exchanges between different currencies. These market makers facilitate complex, multi-participant hops between sender and receiver.

XRP also stands out for its use of "gateways," or institutions that allow users to add liquidity to the Ripple Network.[10] The prototypical gateway is a bank that allows users to deposit U.S. dollars and then receive a U.S. dollar balance in their XRP wallet (representing an amount due from that bank). Gateways also have procedures to allow non-XRP assets to be removed from the Ripple Network. For example, a user that has extended U.S. dollar trust to Bitstamp and receives U.S. dollars in the form of a Bitstamp receivable can follow Bitstamp's procedures to withdraw the U.S. dollars (typically by engaging in a transfer to an account at another financial institution).

XRP primarily functions to facilitate transactions on the Ripple Network, including non-XRP transactions. A small amount of XRP is needed to open new accounts and dispatch transactions, as an anti-spam measure that acts as a safeguard against the Ripple Network being overwhelmed by an attack conducted by a participant effecting a very large number of transactions at once (known as a distributed denial-of-service or DDoS attack).[11] These transaction fees are generally very low (e.g., $0.001), but have been sufficient to prevent an attempt to overwhelm the network. XRP also functions as a "bridge currency" to facilitate currency transactions where no direct exchange is available, for example, between lightly traded currency pairs, or between parties that do not have intervening institutions between them

[9] See Adriano Di Luzio, Alessandro Mei, & Julinda Stefa, *Consensus Robustness and Transaction De-anonymization in the Ripple Currency Exchange System* 3 (IEEE 37th Int'l Conf. on Distributed Computing Systems, June 2017), http://wwwusers.di.uniroma1.it/~stefa/webpage/Publications_files/paper%20172.pdf.

[10] *The Ripple Protocol: A Deep Dive for Finance Professionals*, supra note 72, at 9.

[11] *Id.* at 14.

that are willing to extend credit to one another.[12] Despite XRP's function being to facilitate transactions on the Ripple Network and not necessarily as a currency itself, it is traded on various virtual currency exchanges as its market price fluctuates against U.S. dollars, euro, yen, BTC and other digital and non-digital assets.

Although XRP differs from BTC and many other digital assets in that it is not mined, ownership of XRP, like ownership of BTC, does not involve a "common enterprise with profits to come solely from the efforts of others."[13]

1. XRP is not promoted as an investment of money

Ripple was founded in 2012 as OpenCoin, which later changed its name to Ripple Labs, Inc., a for-profit corporation with its own shareholders and securities that has been financed through several rounds of traditional venture-capital funding.[14] Unlike some digital assets, XRP is not generated through a mining process, but instead 100 billion XRP were created at once by Ripple Labs in 2012. Under the Ripple Network protocol, no further XRP can be created. Of these 100 billion XRP, 20 billion were given to the two founders and the balance went to Ripple Labs.[15] Ripple Labs received its allotment of XRP to fund, among other things, continued development and improvement of the Ripple Network. Ripple Labs' stated goals in distributing XRP have been primarily to incentivize more participants to join and use the Ripple Network.[16]

Ripple Labs has distributed XRP since 2012 in a number of ways. It has given XRP to users for free to encourage adoption of its platform. It has sold XRP at a discount to market makers and financial institutions to incentivize them to participate in the Ripple Network. It has given XRP to developers as part of bug bounty programs. Ripple Labs also provides rebates and other benefits to merchants that accept payment in XRP.[17]

Although XRP was given and sold to members of the public, the distribution differed significantly from many so-called "initial coin offerings." Sales were not marketed as an investment or profit-making opportunity. Sales were not time-limited in a manner designed to pressure purchasers. Further, many initial users or owners of XRP received it for free from Ripple Labs as part of Ripple Labs' efforts to encourage use of the Ripple Network. As described below, even those participants who purchased XRP directly from Ripple Labs were expected to be purchasing XRP for use, not for investment. From what we have been able to determine, Ripple Labs' sales materials have not suggested investing in XRP for its potential

---

[12] *Id.*

[13] *W.J. Howey Co.*, *supra* note 4, 328 U.S. at 301.

[14] *Ripple Funding Rounds*, CRUNCHBASE.COM, https://www.crunchbase.com/organization/ripple-labs#section-overview (last accessed April 2, 2019).

[15] Saifedean Ammous, *Can Cryptocurrencies Fulfil the Functions of Money?* (Columbia University Center on Capitalism and Society Working Paper No. 92, Aug. 2016), http://capitalism.columbia.edu/files/ccs/workingpage/2017/ammous_cryptocurrencies_and_the_functions_of_money.pdf.

[16] *XRP Distribution*, RIPPLELABS.COM, https://web.archive.org/web/20150806120942/https://www.ripplelabs.com/xrp-distribution (last accessed April 2, 2019).

[17] Danny Bradury, *Ripple turns on giveaway faucet*, COINDESK (June 5, 2013), https://www.coindesk.com/ripple-turns-ongiveaway-faucet; Ripple: Become a Bounty Hunter, BOUNTYSOURCE.COM, https://www.bountysource.com/teams/ripple (last accessed April 2, 2019).

value appreciation nor indicated that XRP reflects the value of Ripple Labs, and Ripple Labs has avoided giving any indication of an approximate or expected price or value for XRP. Further, as far as we have been able to determine, Ripple Labs did not arrange for immediate secondary-market trading of XRP outside the Ripple Network in a way that would suggest that it was being sold as an investment.

2. An investment in XRP does not rely upon a common enterprise

Like BTC and other distributed ledger technologies, the Ripple Network relies upon a consensus process for certain participants in a peer-to-peer network to agree upon a single ledger that shows account balances (for XRP and all other currencies) for all participants. Similar to other blockchain-based technologies, the Ripple Network creates a new block or ledger. While miners of BTC are financially incentivized to compete to find the next block, validators in the Ripple Network receive no financial reward. A supermajority of validators must agree on transactions and ledgers for them to be approved.[18]

Similar to BTC, the free and open-source nature of the XRP software and protocol prevents there from being a common enterprise. Each holder of XRP acts independently of one another, and independently of Ripple Labs, with no commitment to engaging in activities to increase the value of XRP. While it appears that many XRP developers and transaction validators are employed by or otherwise contracted by Ripple Labs, and Ripple Labs actively promotes the use of the network through outreach and consulting services to financial institutions, the Ripple Network would likely continue to function and XRP would therefore likely continue to have value even if Ripple Labs ceased to have any continuing involvement.[19] The independence of XRP from Ripple Labs is significantly different from the tokens at issue in the Munchee order, where the value of the tokens was entirely dependent upon the continuing efforts of Munchee to support and grow the enterprise, as Munchee had central and exclusive control over the Munchee app, its development and expansion.[20]

3. XRP is designed to have consumptive uses, not to generate profits

Like BTC, XRP has significant real-world current uses. Ripple technology is especially attractive to businesses because it enables the transfer and exchange of multiple currencies with fast transaction times and minimal electricity usage. Ripple technology is also designed to facilitate enterprise usage, including by banks and other financial intermediaries.

Even more than BTC, XRP has a fundamentally consumptive use, namely as a necessary component of a system that uses blockchain technology for transfers of government-backed currencies and other assets. Usage of the Ripple Network requires that XRP be purchased to facilitate transfers of other currencies, not for investment with the expectation of profits. At the time of the first sales and giveaways, the Ripple Network was functional, not a venture to be developed with funding from the proceeds of the sale. The software was free and open-source.

---

[18] *See* Marcel Rosner & Andrew Kang, *Understanding and Regulating Twenty-First Century Payment Systems: The Ripple Case Study*, 114 MICH. L. REV. 649, 664 (2016).

[19] *The Difference Between Ripple and XRP*, RIPPLE.COM, https://ripple.com/insights/difference-ripple-xrp/ (last accessed April 2, 2019).; Brad Garlinghouse, "Brad Garlinghouse Explains the Difference Between Ripple and XRP," CNBC, June 4, 2018 (stating that "if Ripple, the company shut down tomorrow, XRP will continue to exist."), https://www.cnbc.com video/2018/06/04/brad-garlinghouse-explains-the-difference-between-ripple-and-xrp.html.

[20] Munchee order, *supra* note 3, at 6.

Participants could create wallets and purchase XRP and use it to conduct transactions in XRP or other currencies. XRP was not sold as an investment product to hold based upon its potential future value. Instead, as previously discussed, it was sold to market makers and financial institutions, the exact parties that stand to benefit from a digital asset that increases the efficiency of financial transactions.

In fact, XRP and the Ripple Network are currently used by established financial institutions to facilitate financial transactions, thus using XRP as it was designed to be consumed. Over 100 banks and financial institutions, including Santander, UniCredit, UBS, Standard Chartered, BBVA and MUFG have joined the Ripple Network to facilitate faster payments and remittances.[21] For example, Cuallix, a Mexican payment-processing and remittance firm, appears to be using XRP's xRapid solution, which is Ripple Labs' service to provide liquidity to banks or other institutions interested in cross-border transfers, to facilitate cross-border transfers.[22] These examples demonstrate that many XRP purchasers expect to consume it, rather than profit from holding it.[23]

XRP is marketed and sold by Ripple Labs as a product to be consumed and expended through its use on the Ripple Network and not as an investment with an expectation of profit. In fact, appreciation in the value of XRP decreases the utility of the Ripple Network for its users. Based on our research, it does not appear that Ripple Labs marketed XRP as an investment for which purchasers could expect a profit. Unlike the tokens at issue in the Munchee order, Ripple Labs' marketing materials (such as its white paper) focus on the technological aspects of the Ripple Network and its potential use by finance professionals as a fast, inexpensive system for the transfer of value, as an alternative to other interbank transfer systems – rather than any potential profit from the purchase of XRP.[24] Thus, "[b]ecause [Ripple Labs] is not inducing purchases in [XRP] by emphasizing the possibility of profits or offering profits from [XRP] in the form of capital appreciation or participation in earnings,"[25] XRP does not qualify as an investment contract.

The fact that XRP has been purchased by speculators with a profit motive should not alter its fundamental characteristics as a device to facilitate transactions over the Ripple Network. Speculators may purchase XRP with the hope it increases in value due to its scarcity. These purchasers may be speculating that if the Ripple Network sees an increase in usage, the limited maximum quantity of XRP could be below the level of demand, causing XRP to increase in value – even if that was not its developer's intent. This sort of purchase would be similar to a speculator purchasing a particular vintage of wine in the hope that it increases in value. The wine was not intended by the vineyard to be held as an investment, even if unrelated third

---

[21] Tim Copeland, *Everything we know about who's using Ripple's most XRP-intensive product*, Decrypt (Feb. 22, 2019), https://decryptmedia.com/5313/complete-ripple-partnerships-xrapid-xrp.

[22] *Id.*

[23] *See Edwards, supra* note 1, 540 U.S. at 394 (stating an essential element under the Howey test is that "the investing public is attracted by representations of investment income").

[24] David Schwartz et al., *The Ripple Protocol Consensus Algorithm* (Ripple Labs Inc. White paper 2014), https://ripple.com/files/ripple_consensus_whitepaper.pdf.

[25] *Allen v. Lloyd's of London*, 94 F.3d 923, 931 (4th Cir. 1996) (quoting *Teague v. Bakker*, 35 F.3d 978, 987 (4th Cir. 1994)) (internal quotation marks and alterations omitted).

parties determine to speculate on its future value.[26]

4. XRP owners do not rely upon the entrepreneurial and managerial efforts of others

Although the speed of transactions, the number of participants, and other functionality of the Ripple Network may be affected by continued development by Ripple Labs, holders and users of XRP are relying primarily on the collective activity of such holders and users to enhance the utility and liquidity of XRP on the Ripple Network, and only secondarily, if at all, on the entrepreneurial and managerial efforts of Ripple Labs or any other entity. Additionally, Ripple Labs also removed 55 billion of its own XRP from circulation,[27] which reduced its control over XRP and further decentralized control over XRP. The XRP removed from circulation are held in cryptographically-secured escrow, meaning that Ripple Labs is unable to remove the XRP from escrow and re-centralize control. Furthermore, Ripple Labs has indicated that it intends to increase the decentralization of the system over time by diversifying the validators participating on the Ripple Network.[28] As of December 2018, Ripple Labs controlled less than 30% of validator nodes on the Ripple Network.[29] Owners of XRP can in this respect be contrasted with purchasers of Munchee tokens, who were sold the token on the basis that "Munchee and its agents . . . [would] create the 'ecosystem' that would increase the value of MUN" including through "Munchee's specific efforts to cause appreciation in value."[30]

* * *

Based on the above analysis, and subject to the qualifications and assumptions set forth herein, we believe as of the date of this memorandum that you have reasonable grounds to conclude that XRP does not satisfy all elements of the *Howey* Analysis and is therefore not a "security" for purposes of the federal securities laws.

---

[26] *See NOA v. Key Futures, Inc.*, 638 F.2d 77 (9th Cir. 1980) (holding sale of silver bars was not an investment contract because "[o]nce the purchase of silver bars was made, the profits to the investor depended upon the fluctuations of the silver market, not the managerial efforts of [the sellers]. The decision to buy or sell was made by the owner of the silver."); *SEC v. Mutual Benefits Corp.*, 408 F.3d 737, 744 n.5 (11th Cir. 2005) (stating there would be no investment contract "[w]hen profits depend upon market forces, public information is available to investors by which they can independently evaluate the possible success of the investment.").

[27] *Ripple to Place 55 Billion XRP in Escrow to Ensure Certainty of Total XRP Supply*, RIPPLE LABS, Inc. (May 16, 2017, https://ripple.com/ja/insights/ripple-to-place-55-billion-xrp-in-escrow-to-ensure-certainty-into-total-xrp-supply/.)

[28] *Continued Decentralization & the XRP Ledger Consensus Protocol*, RIPPLE LABS, Inc. (February 21, 2018), https://ripple.com/insights/continued-decentralization-xrp-ledger-consensus-protocol/.

[29] *XRP Ledger decentralization grows as Ripple controls less than 30% of validator nodes on the UNL*, AMB CRPYTO (December 7, 2018), https://ambcrypto.com/xrp-ledger-decentralization-grows-as-ripple-controls-less-than-30-of-validator-nodes-on-the-unl/.

[30] Munchee order, *supra* note 3, at 9.