The Fourth Industrial Revolution and South African Income Tax:

An Investigation into the Exigencies placed on the Tax and Legal Environment by Crypto Asset Airdrops

A dissertation of limited scope in partial fulfilment of the requirements of a Masters of Law (LLM) in South African Tax Law

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ABSTRACT

Over the last five years regulators across the globe have made a concerted effort towards comprehensive regulation of distributed ledger technology, and blockchain. For fear of falling foul of laws governing the issuance of financial securities, there has been a recent hastening of the proliferation crypto asset distribution through the so-called 'airdrop'.

Under the developed framework of what constitutes a good system of taxation is the notion that it should be characterised by simplicity and certainty, both in the substance of the law and the manner in which tax subjects are required to comply. By its nature alone taxation is complex due to it being necessarily informed by many other branches of law; moreover, where a situation would precipitate a certain tax treatment, a subtle variation of the facts have a much amplified effect on the ultimate outcome. Consequently, the nuances of distributed ledger technology may have unanticipated tax effects in opposition to these principles.

This research established that a crypto asset is classified for tax purposes as financial property, not currency. However, public guidance by the tax authority has not made it clear how, or under what circumstances, airdrops are to be taxed. A gross income analysis of airdrops (using the Flare Network as a case study) demonstrated that their tax treatment is able to be analysed in principle under the current primary sources of tax law. However, an inconsistency in its application arose in that non-custodial holders, being subjected to the exigencies of a *stipulatio alteri,* had a number of varying outcomes in comparison to a taxpayer who self-custodies assets. The observed results also illustrated variations in classification of the nature of accrual, as well as the timing. The latter had the effect of introducing possible avoidance opportunities not ostensibly covered by the General Anti-Avoidance rules as they arise through deliberate deferment of positive action.

Notwithstanding that outwardly an airdrop has the countenance of 'free money', the inevitable conclusion is the tax effects are highly complex and sensitive to obscure technicalities of law. The position of the South African Revenue Services is there is no need for a rigorous analysis per an

interpretation note on crypto asset taxation, regarding established law as sufficient. The findings of this research challenge this position as being erroneous – the tax effects are not simply understood by taxpayers, violate the principle of neutrality (as custodial and non-custodial holders should attract the same tax incidence), and no certainty has been provided by tax authorities with respect to airdrops.

The final recommendation is for the South African Treasury, in consultation with the tax authority, to mobilise the Legislature in passing a statute which overrides the attendant law of general application in favour of a single, unified approach to airdrop taxation.

KEY WORDS

Airdrop; blockchain; crypto; cryptocurrency; decentralised; distributed ledger; Flare; gross income; *stipulatio alteri;* Songbird; Spark; technology; *universitas*; XRP

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1 CHAPTER I: INTRODUCTION

1.1 Historical Context

The financial crisis in the United States of America, which subsisted from 2008 to 2010, sent shockwaves through global financial systems. The underlying cause has been cited as being attributable to irresponsible mortgage lending practises by credit providers in a real estate market characterised by unrealistic, and euphoric, price expansion.

The response by the Federal Reserve, and other developed market central banks, was *inter alia* to engage in extensive 'Quantitative Easing' with a view to providing market liquidity, and lowering long term interest rates.[1] This, however, was funded by extensive money printing (without holding reserve assets), enabled by short term interest rates being set near record lows.

The 2008 financial crisis is an iteration of a perennial and recurring pattern,[2] and in the same year the pseudonymous Satoshi Nakamoto released a proposal for a system of transferring value between participants cryptographically, thus negating the need for the interposition of financial institutions between transactors. This has become known as the 'Bitcoin Whitepaper',[3] and the asset which it subsequently created - Bitcoin ("BTC") - not only has grown to a market capitalisation of USD1.24 trillion, but was born out of what is described as a 'revolutionary technological invention'.[4] The term 'fourth industrial revolution' was coined in 2016 by the founder of the World Economic Forum, Klaus Schwab, as an umbrella term under which to discuss the

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[1] The US Treasury yield is considered the long term risk free rate. As the coupon payment remains fixed, central banks are able to affect the rate by creating demand or supply in the market to affect quoted prices.

[2] Michael D Bordo 'An historical perspective on the crisis of 2007-2008' 2008 *National Bureau of Economic Research.*

[3] Bitcoin: A Peer-to-Peer Electronic Cash System (circa 2008)

[4] Kalliopi N. Kypriotaki, Efpraxia D. Zamani & George M Giaglis 'From bitcoin to decentralized autonomous corporations-extending the application scope of decentralized peer-to-peer networks and blockchains' (2015) Vol 2 *International conference on enterprise information systems.*

impact of technological innovation as a driver of transformation across all sections of society.[5]

1.2 The Bitcoin Paradigm and Emergent Technology

Using BTC as the paradigm, the 'Blockchain' is a cryptographic technology whereby a user receives per a record to an alphanumeric wallet address, and sends value, likewise, through the use of digital signatures. Dissimilar to the traditional banking system model, which deals with the double-spend problem by having users defer to the bank as the central trusted authority as to which transaction took place first in time, the BTC Blockchain employs a mechanism known as proof-of-work to achieve trustless economic interaction.[6] This paved the way for the Ethereum Foundation's network for SMART contracts.[7]

Proof-of-work is, however, unsustainable.[8] In 2011, three software engineers set out to create the XRP Ledger,[9] a decentralised ledger technology ("DLT") based on consensus through Federated Byzantine Agreement.[10] This makes the XRP Ledger cost-efficient, scalable, fast and sustainable.[11]

Fundamentally, cryptocurrency, and Blockchain, is software, which consequently is subject to network effects.[12] During 2017, these positive externalities were realised through Initial Coin Offerings (ICOs), whereby participants would send an amount of BTC, or ETH, to a SMART Contract address stipulated by the project, which in turn would send the project token in some predetermined ratio. This practice has been heavily curtailed for fear that it violates laws governing the issuance of securities

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[5] Thomas Philbeck & Nicholas Davis 'The Fourth Industrial Revolution: Shaping a new era' (2019) 72(1) *Journal of International Affairs*; cf Klaus Schwab *The Fourth Industrial Revolution* (2016).

[6] Blundell-Wignall, A 'The Bitcoin Question: Currency versus trust-less transfer technology' (2014) *OECD Working Papers on Finance, Insurance and Private Pensions*, No. 37 OECD Publishing, Paris.

[7] SMART Contracts were originally conceived by Nicholas Szabo in 1994.

[8] Brandon R. Sutherland 'Blockchain's first consensus implementation is unsustainable' (2019) 4(3) *Joule.*

[9] David Schwartz, Jed McCaleb and Arthur Britto; cf www.xrpl.org/history.html.

[10] https://xrpl.org/.

[11] Lara Mauri, Stelvio Cimato & Ernesto Damiani 'A formal approach for the analysis of the XRP Ledger Consensus Protocol' 2020 *International Conference on Information Systems Security and Privacy.*

[12] John M. Gallaugher & Yu-Ming Wang "Understanding network effects in software markets: evidence from web server pricing." (2002) 26(4) *Management Information Systems Quarterly.*

in major market spaces,[13] and has been replaced by the practice of airdrops. Colloquially, an airdrop is an apparent unilateral receipt of value out of 'thin air', however a more technical definition is, '…*the process whereby a cryptocurrency enterprise distributes cryptocurrency tokens to the wallets of some users free of charge*.'[14]

1.3 Rationale for the Research

The development of the internet to its current form, featured by giant multinational digital services providers such as Google LLC or Amazon LLC, operating in a truly global market space, has been a source of recent concern among tax authorities, and state treasuries. Given the maxim *de minimis non curat lex*, it is understandable that at the inception policy makers may not have given too much thought to envisioning the challenges to taxation of what in hindsight is disruptive technology. Nevertheless, holistically this testifies that fundamentally disruptive technology ought not to be ignored until it reaches such widespread adoption at which point it is less easily brought within a fiscal framework.

Furthermore, in the wake of the COVID-19 pandemic the global narrative towards addressing the issue of global warming has seen energy-inefficient blockchains come under increased scrutiny,[15] which one may conjecture as eventually precipitating a massive transition of value onto systems based on the Federated Byzantine consensus model. This necessarily would result in massive wealth creation, which would be of significant interest to taxing authorities as a potential source of revenue. The recent increase in applications development on the XRP Ledger, as well as the growing frequency of airdrops to participants on the network,[16]

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[13] Philip Hacker & Chris Thomale 'Crypto-securities regulation: ICOs, token sales and cryptocurrencies under EU Financial Law' (2018) 15(4) *European Company and Financial Law Review*.
Cf C. Daniel Lockaby 'The SEC rides into town: Defining an ICO securities safe harbor in the Cryptocurrency "Wild West"' (2018) 53(1) *Georgia Law Review.*

[14] Carol R. Goforth 'It's raining crypto: The need for regulatory clarification when it comes to airdrops' (2019) 15(2) *Indian Journal of Law and Technology.*

[15] Dorota Kolinska 'Cryptocurrencies in the EU: new rules to boost benefits and curb threats' European Parliament Press Office 14th March 2022 available at *https://www.europarl.europa.eu/* accessed on 31st March 2022.

[16] While the construction, as a matter of law, of the term 'airdrop' may vary, at this juncture it suffices to say that it refers to a financial event whereby a digital wallet receives a quantity of

potentially represents another challenge for the tax machinery to integrate.

Given the value proposition these projects represent to early adopters, a proactive approach in examining the tax consequences is advisable to determine whether the South African tax legislation, and the legal environment in which it operates, is prepared for all the possible nuances, permutations and schemes to which these airdrops may be put.

1.4 Research Objectives

1.4.1 Primary research objective

Taxation, while flowing principally from the Income Tax Act 58 of 1962 ("the Act"),[17] is also dependent on the peculiarities and nuances of the general body of law. In 1776 Adam Smith described what constitutes a good tax system, noting four keystone principles.[18] Through ongoing development of these principles, economic efficiency and administrative effectiveness of a tax system are considered a hallmark of an ideal design.[19] Economic efficiency of a tax system, *inter alia*, may be achieved through simplicity, founded upon a substantive and procedural paradigm: a) simplicity in the application of the tax law, and b) simplicity in compliance with the said law. The International Bureau of Fiscal Documentation define 'certainty' in this context as meaning, *'…law should be clear and unambiguous and the tax authorities' interpretation of it should be readily available'*[20] [emphasis added]. An alternative construction is to test for uncertainty, which may arise where there is a defect, or omission.[21]

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cryptocurrency from a sender without requiring reciprocal value to be transferred, or undertaken to be transferred. It is, therefore, a unilateral transaction.

[17] Income Tax Act, Act 58 of 1962.

[18] Adam Smith *An Inquiry into the Nature and Causes of the Wealth of Nations* (1776).

[19] Pasquale Pistone, Jennifer Roeleveld & Johann Hattingh et al *Fundamentals of Taxation: An Introduction to Tax Policy, Tax Law and Tax Administration* (2019) ch 2.

[20] International Bureau of Fiscal Documentation 'International Tax Glossary' available at *https://research-ibfd-org.ezproxy.uct.ac.za/#/glossary* accessed on 15th June 2022.

[21] Alexander Demin 'Certainty and uncertainty in Tax Law: Do opposites attract?' (2020) 9(4) *Laws.*

This research aims to address the following broad issue: is the South African tax environment characterised by simplicity through certainty in how airdrops would be taxed? Failing which, should specific rules be tabled by the Legislature to ensure compliance levels and revenue collections are not impaired through a legal framework not easily understood and applied by the average individual?

1.4.2 Secondary research objective

Additionally, this research aims to address the questions: what are the potential tax consequences of the airdrops emanating from the launch of the Flare Network, and in what instances might they be brought within the ambit of the gross income definition of the Act?

1.5 Research Methodology

The research objectives identified will be examined in the following manner. First, guidance published by the South African tax authority will be reviewed in order to determine the position of government agencies on the matter. In addition, guidance notes issued by the United States of America Internal Revenue Service ("IRS") and Her Majesty's Revenue and Customs, the UK tax authority ("HMRC") are examined. The United Kingdom has been chosen for comparative analysis as, while not creating South African law, our courts have been observed in giving notable value to the opinions and practices of English authorities. Furthermore, notwithstanding that the United States represents another common law jurisdiction, and is so massive a market as for its attitude being worthy of note *per se*, their published guidelines represent an apparent divergent approach relative to the British guidelines.

Secondly, an analysis of the legislative framework for income tax matters will be undertaken. Other statutes, which are determined as having potential import in deliberating on significant tax enquiries, will be discussed for broader perspective, as tax law is part of a legal system, and not a system in and of itself. The legislative framework will be qualified by examination of case law and academic opinion.

A financial analysis is undertaken to compare the effects of utilising different timing regimes for revenue collection. The objective of this analysis is to determine whether a strict approach in terms of the legal framework results necessarily in the best economic outcome.

Lastly, these established positions will be discussed in the context of two real-world case studies – see section 1.6 below.

In conclusion, a summary of findings will be made.

1.6 Case Studies

1.6.1 Flare Networks - Spark

Flare Networks ("the Mainnet") is an FBA-based technology platform being deployed to enable the use of Turing-complete SMART contracts on the XRP Ledger. Central to this mechanism is the native token of the network - Spark (FLR). The technical aspects are available for review in the whitepaper, however for the purposes of this research special attention is made to clause 3.3 thereof, concerning the creation and distribution of Spark.[22] The following salient points are summarised below:

- The first fully validated ledger with a time stamp greater than the 12th December 2020 00h00 UTC, is noted as a static record, from which addresses known to be controlled by Ripple Labs Inc. (an American-based private Fintech company), certain individuals specifically identified, and public cryptocurrency exchanges ("PCEs"), who have opted not to participate, are removed. This is referred to as the 'Snapshot'. In hindsight this refers to ledger index 60,155,580, and acts as a list of qualified offerees.
- PCEs, participating, do so on the basis that they act as a sort of intermediary between the Mainnet on launch and persons who hold XRP there. This is asserted to constitute what the South African Law of Contract recognises as a '*stipulatio alteri*', with those rules concerning the third-party beneficiary being applicable. These XRP holders are referred to as non-custodial holders.

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[22] White Paper on the Flare Network and Spark Token (27th August 2020)

- Custodial holders indicate their interest by updating a metadata field on the XRP Ledger associated with their wallet address to contain a destination to where the FLR must be delivered on launch. In this case an Ethereum-styled address.
- At the Mainnet launch a total of 100 billion FLR will be created, and bound to a SMART contract.
- Ownership will vest immediately through what is asserted as being appropriation (*occupatio*);[23] such that 25 billion shall become the property of Flare Networks Limited ("FlareCo"), and 30 billion the property of the Flare Foundation; both are presumed as having acceded to ownership.[24]
- The remaining 45 billion similarly vest in those addresses noted in the Snapshot in terms of a set formula (linked to the number of XRP held at the Snapshot), to the extent that their owners have indicated they accede to ownership by appropriation via the metadata field, *supra*. These XRP holders are referred to as custodial holders.
- Delivery of the FLR to the indicated delivery destinations of the respective XRP addresses takes place in terms of a schedule: 15% immediately, thereafter between two and four per cent (based on a random number) monthly, until fully distributed.
- FLR tokens carry with them no pecuniary rights, but do represent a democratised vote over subsequent Mainnet development. The Flare Foundation, however, is barred from the governance process notwithstanding its holdings.

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[23] Appropriation, or '*occupatio'*, is defined in the South African Law of Property as the unilateral taking of physical control of a thing which does not belong to anyone (*res nullus*), but which is within the sphere of law (*res in commercio*) with the intention of becoming its owner. This is an original method of ownership, which is characterised by it not requiring the co-operation of any predecessor in-title.

[24] In terms of Flare Networks Limited's published statement, 'the Flare Network [Mainnet] automatically encodes the state of the XRPL through the state-connector system (detailed in the Flare white paper) meaning that actions such as the setting of an XRPL address's message key become automatically a part of the state of the Flare Network. The consequence of this is there is <u>never a centralized entity</u>, or closed set of key-holders, that are <u>depended on to deliver Spark tokens</u>.' [Emphasis added].

The Mainnet is scheduled to launch on the 4th July 2022.[25]

1.6.2 Flare Networks - Songbird

The Songbird Network is the Mainnet's canary network.[26] The Songbird Network was announced in Q32021, and distribution of its native token – Songbird (SGB) – took place in Q42021. The stipulations pertaining to FLR distribution mechanism above apply to the Songbird Network, *mutatis mutandis*, save for the following differences:

- The SGB distribution was fully settled at network launch.
- The allocation formula is a linear equation, ie 1XRP ≈ 0.1511SGB.

It is important to note that while the final ownership interest is based on the Snapshot, the Songbird Network was announced *post factum* in what had not been envisioned initially. Custodial holders, and FLR-participant PCEs, have received the full distribution at the time of writing, however not all of those participant exchanges have delivered these assets to the underlying XRP holders. FlareCo noted in an announcement on 20th September 2021 these exchanges have, *inter alia*, the option to keep for themselves.[27] This importantly distinguishes the differing contractual bases on which custodial holders and non-custodial holders of XRP become entitled to these respective assets. For non-custodial holders in the case of SGB, it can only be suggested an action against agitating exchanges through a competent court be made in terms of an argument that the Doctrine of Legitimate Expectations ought to apply.

1.7 Summative Statement

In conclusion, the primary research objective is to be attained by the examination of how the established South African legal framework interacts with two real-life scenarios from a tax perspective. The

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[25] Available at *https://twitter.com/FlareNetworks/status/1537449161611567104?cxt=HHwWgICjobz3jtYqAAAA*.

[26] A canary network is live network for beta testing / debugging prior to full commercial deployment.

[27] Available at *https://twitter.com/FlareNetworks/status/1439916927112056836?ref_src=twsrc%5Etfw%7Ctwcamp%5Etweetembed%7Ctwterm%5E1439916927112056836%7Ctwgr%5E%7Ctwcon%5Es1_&ref_url=https%3A%2F%2Fwww.xrpchat.com%2Findex.php%3Fapp%3Dcoremodule%3Dsystemcontroller%3Dembedurl%3Dhttps%3A%2F%2Ftwitter.com%2FFlareNetworks%2Fstatus%2F1439916927112056836*.

determination of the tax treatments would speak to the secondary research objective, however the nuances and technicalities of how those treatments are derived should speak directly to the relative simplicity of the tax system.

Recommendations, which may flow from these deliberations, would then be made against the backdrop of the financial analysis performed. In particular, this should highlight whether there appears to exist any substantial trade-offs for the Treasury if the Legislature were to introduce special provisions to deviate from the current legal position.

2 CHAPTER II: COMPARATIVE ANALYSIS OF TAX AUTHORITY GUIDANCE

2.1 Overview

Tax certainty is often achieved through publication of guidance, or interpretation notes. While such publications are useful to the market, the observed intensity of development in the fintech space may very likely render such publications quickly out-dated, or otherwise irrelevant.

In this chapter, the published viewpoints by the South African Revenue Service ("SARS") are examined as the logical starting point for establishing the perceived tax position of our tax authority. In addition, similar guidelines published by the US IRS and UK HMRC are considered.

2.2 SARS Guidelines

During the course of 2019, SARS became a member of the Intergovernmental Fintech Working Group ("IFWG"). While this Commission has published extensively on the topic of integration of cryptocurrency into the South African regulatory framework, hitherto it has only commented that SARS' guidelines ("the SARS Guidelines"), published on the 8th April 2018, would continue to be adhered to in dealing with the taxation aspect.[28]

In the SARS Guidelines tax events concerning cryptocurrencies were classified into three broad categories, namely: mining, speculative trading / investing, or as compensation for goods or services supplied (barter transactions). Furthermore, SARS' opinion is that cryptocurrencies in general fall within the ambit of the definition of 'gross income' as defined in s 1 or sch 8 of the Act, considering that,

> '*There is an existing tax framework... making a separate interpretation note unnecessary.*'[29]

This publication only expresses the tax authority's interpretation of the law. While acknowledging potential bias, SARS' position with respect to these activities presents with no obvious criticism other than lacking

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[28] South African Revenue Services 'SARS's stance on tax treatment of cryptocurrencies' available at *https://www.sars.gov.za* accessed on 29th November 2021.

[29] Ibid.

context with respect to the 'not of a capital nature' element of gross income.[30]

Airdrops, however, are not specifically addressed, creating uncertainty. By definition, an airdrop is not a *quid pro quo,* but resultant from some positive externality.[31] Yet, the question inspired by Lord Wrenbury's statement is:[32] if there is a coming in, is there a [gross] income? Superficially an airdrop is a 'gift', nevertheless there is no obvious reason why it could not be central to a profitable trade. The capital nature inquiry is critical.

2.3 US IRS Guidelines

The IRS released guidance for US taxpayers per Revenue Ruling 2019-24.[33] The document analyses gross income in the context of an airdropped cryptocurrency, following a hard fork. A 'hard fork' is acceptably defined as,

> ...when a cryptocurrency on a distributed ledger undergoes a protocol change resulting in a permanent diversion from the legacy or existing distributed ledger.[34]

In terms of s 61(*a*)(3) of the Internal Revenue Code of 1986, gross income means,

> '...*all income from whatever source derived, including gains from dealings in property.*'

The US Supreme Court expounded on this definition in *Commissioner v. Glenshaw Glass Co.*,[35] stating gross income to be,

> '*...<u>undeniable</u> accessions to wealth, clearly realized, and over which the taxpayers have <u>complete dominion.</u>*' [Emphasis added].

The U.S. Tax Code provides taxpayers to report their income on an accrual or receipt basis. The document, however, illustrates the tax implications by means of a hypothetical set of facts, which is

[30] Section 1 of the Act.
[31] Goforth op cit note 14.
[32] *The St. Lucia Usines and Estate Company Limited v The Colonial Treasurer of St. Lucia* Privy Council of Appeal No 79 of 1923.
[33] US Internal Revenue Service 'Revenue ruling 2019-24' available at *https://www.irs.gov/* accessed on 18th November 2021.
[34] A 'blockchain' is a specific type of 'distributed ledger'. While the terms cannot strictly be used interchangeably, they both are reliant on a cryptocurrency token to operate, and as such for tax purposes can be regarded as synonymous.
[35] *Commissioner v. Glenshaw Glass Co.* 348 U.S. 426, 431 (1955).

incorporated herein by reference. An accrual is predicated on a right no longer being subject to conditions (undeniable), and a receipt on where the property is fully controllable by the taxpayer.

This presumes a self-custody arrangement, and is importantly contrasted by instances where an airdrop is received by a PCE. Here control equates to trade, or withdrawal support, which is discretionary.

These are reasonable principles, however confined to airdrops,

> '*...solely because B owns Crypto R at the time of the hard fork.*'[36]

This is consistent with s 61(*a*)(3) in that a hard fork is a dealing in a taxpayer's property, and analogous of capital and the fruits of that capital under a strong nexus. This guidance, however, does not speak to instances where ownership of the legacy asset is one of several factors triggering the receipt of the airdrop. Lastly, it is unclear what the tax treatment is where there is technologically no hard fork. By definition this requires the creation of a new blockchain by means of a 'permanent diversion' from the old. Where a taxpayer's interests in the cryptocurrency of an independently created blockchain are contingent on their ownership of an existing one, this guidance does not seem to apply.

2.4 HMRC Guidelines

HMRC published guideline Crypto21250,[37] noting,

> …examples of airdrops may involve tokens being provided automatically due to other tokens being held or where an individual has registered to become eligible.

This definition is consistent with previous definitions, however is more expansive. It is adopted for the purposes of this research.

The guideline determines that airdrops are not always subject to tax. A positive and a negative test is proposed. The former definitively states that airdrops received, 'in return for, or in expectation of, a service,' are taxable as gross income. Alternatively, where a taxpayer receives an

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[36] IRS op cit note 33.

[37] Her Majesty's Revenue and Customs 'Crypto21250' available at *https://www.gov.uk/* accessed on 18th November 2021.

airdrop 'not as part of a trade or business', taxation thereon as gross income may not apply.

2.5 Summative Statement

The IRS' position is only responsive in cases of hard forks, and is, therefore, not relevant to the case studies. HMRC hold a similar position to SARS in recognising airdrops received as compensation as taxable, both implying the capital nature inquiry is decisive. However, neither comment on the timing of receipt or accrual, or valuation.

SARS' failure to provide readily available guidance to the public creates uncertainty through omission, impairing simplicity of the system. Further, taxpayers ought not to need to examine foreign tax policy for insight. An analysis under South African jurisprudence is, therefore, necessary.

3 CHAPTER III: THE SOUTH AFRICAN LEGISLATIVE FRAMEWORK

3.1 *Overview*

This chapter examines several general principles of the legal environment. The ultimate objective is to identify which provisions of legislation require further development.

3.2 Cryptocurrency

Cryptocurrency is not defined, however s 1 of the Act stipulates,

> *'**financial instrument** includes —*
>
> *(f) any crypto asset'*

This definition was originally written into the Act per s 1(*1*)(c) of the Taxation Laws Amendment Act 23 of 2018 as 'cryptocurrency'.[38] The South African Reserve Bank Act 90 of 1989 protects the status of the Rand as the only form of legal tender in the Republic.[39] Consequently, the above definition was substituted by s 2(*1*)(c) of the Taxation Laws Amendment Act 23 of 2020, as above to dispel the suggestion of a currency classification.[40] The IFWG acknowledges that crypto assets have uses beyond the original vision of BTC do exist.[41] The definition should be interpreted broadly as property, however under s 22(*1*)(a) of the Act they are excluded from the write-down rules notwithstanding being held for trading. Generally, crypto assets are clearly defined.

3.3 *Gross Income*

The definition of 'gross income' is contained in s 1 of the Act, and is incorporated herein by reference, which further provides,

> **'resident'** means any—
>
> (*a*) natural person who is—
>
> (i) ordinarily resident in the Republic

'Ordinarily resident' is not defined in the Act, however is neatly construed in terms of *Cohen v CIR,*[42] identifying a taxpayer's residence as,

> '*...the country to which he would naturally, and as a matter of course return from his wanderings.*'

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[38] Taxation Laws Amendment Act, Act 23 of 2018.
[39] South African Reserve Bank Act, Act 90 of 1989.
[40] Taxation Laws Amendment Act, Act 23 of 2020.
[41] Bitcoin whitepaper op cit note 3.
[42] *Cohen v CIR* 1946 AD 174 13 SATC 362.

Tax may be assessed on South African source income. 'Republic' is defined in s 1 of the Act. The State's sphere of influence per art 1 of the Convention on International Civil Aviation established South African sovereignty over its airspace,[43] and s 1 of the Space Affairs Act 84 of 1993 extends this even further.[44]

In terms of s 24(*1*) of the Cybercrimes Act 19 of 2020 ("the Cyber Act"),[45] the courts have jurisdiction in cases where,

> '*the offence was committed in the territory of the Republic*.'

And further, in terms of s 24(*1*)(d),[46]

> *'any act in preparation of the offence or any action necessary to commit the offence or any part of the offence took place in the territory of the Republic.'*

The offences concern the unlawful and intentional access of a 'computer system'. The definition of 'computer system' is made dependent on the definition of 'computer', both defined terms in s 1 of the Cyber Act. The common law recognises 'an act' as a separate element of a crime, which constitutes a court's jurisdiction to determine criminality. South African jurisdiction may begin where a taxpayer accesses a distributed ledger, or blockchain, as constituted merely decentralised computer system.

The Act does not specifically determined tax sovereign in cyberspace. The consequent uncertainty may be remedied by amendment of s 9 to deem South African source as arising where a blockchain is accessed from within the Republic.

Besides the considerations above, the scope of this research is confined to examining resident individuals, for which the terms 'not of a capital nature', 'received by or accrued', and 'total amount in cash or otherwise' must be developed.

3.4 Decentralised autonomous organisations

3.4.1 Validity of the offer

Taxation is a consequence of obligations, of which the eminent source is contract. Under South African contract law the foundation thereof is

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[43] Convention on International Civil Aviation 1944.
[44] Space Affairs Act, Act 84 of 1993.
[45] Cybercrimes Act, Act 19 of 2020.
[46] Ibid.

consensus, ie offer and acceptance. A valid offer must be certain; it may not be vague, indeterminate or objectively impossible to perform.[47] Contractual obligations arising from the Mainnet are obfuscatory, presenting several issues.

Commercial contracts are relatively uniform, and assented to in writing. The closest analogy here is the Flare Network whitepaper, and surrounding documentation ("the Documentation").[48] It is supposed that it is a proxy for a contract, albeit arguably vague as such.

A second issue concerns the performance offered. A share or bond certificate has no use beyond proof of entitlement, whereas a crypto asset has utility by virtue of it being a piece of unitised codebase. Thus, the question is put: would a notional crypto asset (in the form of a dormant codebase) as opposed to a functional crypto asset as part of a live codebase, be material to the extent it effects consensus?

Materiality as a concept in contract law has no single legal definition, and varies depending on the context of the inquiry.[49] At common law, it must be examined with reference to the effect it has on parties' rights under a putative agreement. Where a variation is so severe that it would have precluded contracting, it is void *ab initio*.[50]

By analogy, materiality would reside in determining whether the offeree would consider one variant of greater commercial value. The offeror's counterparty is a pseudo-anonymous class of persons, emanating from an extremely diverse population; the mean should be presumed not to have specialist knowledge, or be uniquely situated.

The fundamental value of a crypto asset is derived from its utility, which would require a live ecosystem. A dormant codebase has no immediate utility to the average person, and furthermore the ability of the average person to realise value for the inherent crypto asset would be highly doubtful in the absence of a proliferated market of willing buyers and

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[47] Dale Hutchison, Chris-James Pretorius & Jacques Du Plessis et al *The Law of Contract in South Africa* 3 ed (2010) at 55-56.

[48] Whitepaper on Flare Consensus Protocol (5th November 2019), and whitepaper on Flare Network (10th August 2020) ("the FN Whitepaper").

[49] Brian A. Blum 'The Protean concept of materiality in Contract Law' (2020) 643 *Michigan State Law Review.*

[50] Ibid.

sellers. It is material, therefore, that the subject matter of the offer be regarded as a functional crypto asset in a live ecosystem.

Presuming this position, the contract would be invalid as performance would be objectively impossible given the object does not exist. This may be cured by supposing performance is merely subject to a suspensive condition, however this in turn raises an issue under the *nemo plus iuris* rule. The suspensive condition is fulfilled when Mainnet launches, immediately after which FlareCo has no further control over the network. The functional FLR are only created at this point in time, of which FlareCo is only vested with 25 billion. This does not amount to objective impossibility, but subjective impossibility. The latter does not void the contract, and FlareCo would need to acquire 20 billion FLR in the secondary market to avoid a breach.

Notwithstanding the above, XRP holders are vested with 45 billion FLR directly from the Mainnet when the network goes live. If it were held that FlareCo is required nevertheless to perform, XRP holders would ultimately accrue 90 billion FLR. A further requirement for a valid contract is for the parties to intend to create legal consequences; through the lens of consensus, each party must furthermore intend the same consequences. Empirical examination of the Documentation leads one to the conclusion that it was never envisioned that XRP holders accede to 90 billion FLR, yet, the application of contract law principles tends to this result if one presumes FlareCo to be the counterparty and attempts to adhere to the *pacta sunt servanda* principle.

A draconian solution to these nuances potentially lies in the common law doctrine of 'Substance over Form'. In tax discourse this calls for liability to be determined with reference to the economic outcome of a transaction.[51] Thus, it may be argued as immaterial whence the asset comes once it has been received by the taxpayer.

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[51] Thabo Legwaila 'Modernising the 'substance over form' doctrine: Commissioner for the South African Revenue Service v NWK Ltd: case comment' (2012) 24(1) *SA Mercantile Law Journal.*

3.4.2 Acceptance

Under South African Law of Contract for a valid offer to be accepted, acceptance must:

- Be unconditional and unequivocal,
- Be accepted by the offeree with intent to create legal consequences, and
- Comply with any formalities set by the law, or the offeror. [52]

The contract is created at that place where consensus is reached, ie where the offer is accepted. When parties contract at a distance (*inter absentes*), the exact time and place of consensus, '*has immense practical significance*.'[53]

The common law in general subscribes to the 'Information Theory'. However, In terms of s 22(2) of the Electronic Communications and Transactions Act 25 of 2002,[54] ("ECT Act") contracts entered into through the use of data messages are governed by the 'Reception Theory', which stipulates that a contract comes into existence when and at that place the offeror is placed in a position where they can retrieve the acceptance. Hutchison writes that in terms of s 23(b)-(c) of the ECT Act,

> A data message is regarded as having been received by the offeror at his or her usual place of business or residence when the complete data message enters an information system designated or used for that purpose by the offeror and is capable of being retrieved and possessed by him or her. [55]

While the word 'offeror' appears only in s 22 of the ECT Act, it is necessarily implied that it refers to a 'person', which is inclusively defined in s 1.[56]

The above sets out a very clear legal position as to how acceptances are to be made in electronic/digital form, nevertheless this is predicated on a valid offer, which has been shown as problematic with FlareCo as offeror. Notwithstanding the efficacy of the substance over form doctrine, a more

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[52] Hutchison et al op cit note 47.
[53] Ibid.
[54] Electronic Communications and Transactions Act, Act 25 of 2002.
[55] Hutchison et al op cit note 47 at p 59.
[56] ECT Act supra note 54.

reasonable alternative, is to regard the offeror as the Mainnet itself – this solves for impossibility of performance, and issues resulting from the assumption of a suspensive condition. Under the tenets of contractual acceptance, the Mainnet is well positioned to note XRP holders' responses to the offer. The cascade of events can thus be described:

- At launch the Mainnet, as offeror, makes offers to XRP holders in terms of the Snapshot.
- Acceptances of these offers are received under the Reception Theory by virtue of the Mainnet reading the appropriate ledger index by which acceptances had to be communicated. Consensus is reached is reached where an appropriate response in the metadata field is read, or else the offer lapses.

Such a construction is far clearer from a contract law perspective than regarding FlareCo as offeror. Furthermore, this would greatly simplify analysis in respect to the timing of accrual for tax purposes. However, in terms of the ECT Act an offeror must be a legal person. Based on recent legislation passed in the United States, as well as juristic personality under common law (*univeritas*), it is argued the Mainnet may have standing as a legal subject under South African law.

3.4.3 Novel legislation in the US

In July 2021, the governor of the US State of Wyoming ratified the Decentralized Autonomous Organizations Act 73 of 2021 ("the DAO Act").[57] A decentralised autonomous organisation ("DAO") is a term used to refer to certain types of distributed ledger platforms, deploying SMART contract technology, and which comply with certain criteria; the effect of this Act is that such organisations now have legal personality. This is, however, made contingent on a natural person being listed in a register as the 'guarantor' of the platform with a view to ensuring any criminal activity, or the like, may be properly prosecuted.

Authors on this topic argue that the recognition of DAOs as legal persons would lubricate the functioning of legal systems, represent good stewardship in safe-guarding public policy, and foster commercial and

[57] Decentralised Autonomous Organizations Act, Act 73 of 2021

economic prosperity.[58] While there is no enabling South African legislation creating any analogous statutory creature as described above, a case may be made that they qualify as a *universitas* (s 3 of the ECT Act does not subvert the law of general application). Under South African Law of Persons, there are three requirements to be met:[59]

- A continuous existence irrespective of the fact that its members may vary.
- An ability to acquire rights, duties and capacities, independent of its members.
- Be for purposes other than acquisition of gain.

In the context of distributed ledger platforms, holders of the native assets may act as the governors of the network through democratisation of their token holdings, ie the members by analogy. The holders of these native tokens may change continuously, as is evidenced by the trading volumes on exchanges. Nevertheless, this does not affect the existence of the network, which persists regardless. P*rima facie*, requirement one is met.

Requirement three is a question of fact. The typical distributed ledger network has no profit agenda. Notwithstanding the activities of users thereof may attain profit, it is independent of the network itself, which merely serves as a medium. P*rima facie*, requirement three is met.

Requirement two is not so easily construed, however the following argument could be made. Traditionally there are three forms of capacity, namely:[60]

- 'Legal capacity' is the ability to acquire rights and duties. Inability to acquire specific rights and duties does not impair legal capacity, but merely effects status. This suggests that it is not necessary for legal personality that there must be existent a facility to acquire the full legal spectrum. In the context of a distributed ledger network, obligations may be framed to exist in the form of it acting as an underwriter of the SMART contracts which the users of the network

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[58] Max Ganado, Joshua Ellul & Gordon J. Pace et al 'Mapping the future of legal personality' (2020), *MIT Computational Law Report.*

[59] Jacqueline Heaton *The South African Law of Persons* 3 ed (2008) at p 7.

[60] Ibid at pp 37-38.

create. Unlike in the traditional sense where trust in a guarantor flows from the strength of their financial position, transactors in this case trust that the platform will honour its duty to enforce these SMART contracts by very virtue of it being completely impersonal, governed by code.

- Capacity to act refers to the ability to enter into valid acts, to which the law attached consequences. It is submitted that the law does attach meaning to the act of guaranteeing another party's performance.
- Capacity to litigate is ability to be a party to a lawsuit. The lack of capacity to litigate must not be confused with the simple inability to appear personally,[61] and by inference that representation through human functionaries is in order. Here this is analogous to token holders in their capacities as the governors of the network litigating against bad actors, which is no more alien a concept than directors suing on behalf of a company.

The above discussion does not proffer a definitive conclusion other than that a potential case could be made.

3.4.4 Summative statement

Intuitively the idea of a software platform being regarded as a legal person may appear ludicrous. Nevertheless, there is at least some basis in common law to consider it. Further, it is pointed out that the idea of a statutory creature, such as a company, being a legal person would likely have been met initially with similar scepticism. Yet, this is the challenge progress in technology presents to legal systems, which must necessarily adapt to serve society best even if by legal fiction.

Given that tax events arise out of the creation and discharge of obligations, the difficulties with respect to certainty and performance exemplified by FlareCo as offeror would present difficulty for the tax machinery, especially with respect to timing of accrual. Of equal concern is unless one has a working knowledge of the nuances of South African law, let alone the effect international law may have on the issue, the legal

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[61] Ibid at p 39.

ramifications of airdrops could be said to place a supererogatory burden on individuals beyond that which they may reasonably be expected to bear.

In light of how distributed ledger platforms generally operate, recognition of a DAO as a legal person for the purposes of income tax would lend significant clarity to the tax system when contemplating airdrops from a newly created networks. Prospectively, as the creators do not as a matter of course have any continued influence over DAOs as owners (FlareCo can be outvoted by other network governors), any subsequent tax events by governance vote would more easily be analysed under such a construction.

3.5 Stipulatio Alteri

In Roman law the privity of contract held that an agreement for the benefit of a third-party (*stipulatio alteri*) was not considered enforceable. This, however, was rejected by Roman-Dutch jurists, and consequently through import into South African jurisprudence our law does recognise the validity of such contracts. The exact construction and application, however, is an ongoing debate among authors.

Over the course of time, the courts have developed a framework, which is functional, effective and consonant with general principles of law.[62] This is summarised below:

- A *stipulatio alteri* is created when A (*stipulans*) contracts with B (*promittens*) in terms of which B agrees to offer a benefit to C (beneficiary); this contract is constituted in terms of the general law of contract.
- South African law favours the view of the Roman-Dutch author de Groot.[63] C only acquires a legally enforceable right to the benefit once they have communicated their acceptance thereof to B; prior to C's acceptance, A and B may vary, or cancel, their contract.

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[62] Hutchison el al op cit note 47 at p 225.

[63] Van Zyl, R 'The origin and development of the Stipulatio Alteri towards a sound description in contemporary South African law' (2018) 81(3) *Journal for Contemporary Roman-Dutch Law.*

- Performance cannot be demanded from B to A, personally, who may only enforce that B honour the promise; if C has accepted the benefit under the contract, A no longer has any *locus standi*. C gains an independently enforceable right.[64]
- Any obligations attaching to benefit must be undertaken by C in his acceptance of the benefit, or else it is not a valid acceptance.

Academics opine that there is not unanimity over whether C becomes a party to the contract between A and B; that the favoured view in case law is that of two separate bilateral agreements arise, one between A and B, the other between B and C.[65] As such, it follows that the laws regarding acceptances of offers govern the second contract.

In the context of taxation one would be interested most in when the beneficiary accedes to legal rights as it affects the accrual inquiry, and indirectly valuation. While this appears to be on acceptance of the offer from the *promittens*, to the extent no time is set by the *stipulans* the acceptance must be made within a reasonable time, which becomes a question of law.

3.6 Summative Statement

The legal definition of crypto asset for tax purposes is made quite clear in the Act. However, it has been demonstrated complexity arises when tenets of contract law interact with distributed ledger networks, newly created. The argument was made that DAOs qualify as legal persons under common law, and the idea is not without foundation when examining certain foreign law and academic opinion. Nevertheless, for tax purposes at least to regard a distributed network as a legal person would certainly clarify the initial, and subsequent, tax consequences. Clarity is an effective defence against complexity.

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[64] *J R 209 Investments (Pty) Ltd and Another v Pine Villa Country Estate (Pty) Ltd* 2009 (4) SA 302 (SCA) at para 15, Cf *Nine Hundred Umgeni Road (Pty) Ltd v Bali* 1986 (1) SA 1 (A) at para 6.

[65] Hutchison el al op cit note 47 at p 226.

From the perspective of gross income definition per s 1 of the Act, the following chapter develops the legal framework further in examining ‘not of a capital nature’, and thereafter the core elements of the definition.

4 CHAPTER IV: TESTING FOR 'NOT OF A CAPITAL NATURE'

4.1 *Preamble*

The phrase 'not of a capital nature' forming part the gross income definition has historically taken a great toll on the deliberative energies of academics, jurists and the courts, having handed down a plethora of case law on the issue.

The objective of this chapter is to establish a general understanding of what capital is through its historic context but ultimately to demonstrate that under prevailing judicial precedent the taxpayer's subjective intention is decisive in the absence of any irreconcilable objective facts.

4.2 Capital as an Economic and Legal Concept

Adam Smith defined capital (in Economics) as,[66]

> '*...that part of a man's stock which he expects to afford him revenue.*'

In the economic sense, capital is understood as being composite of financial and human capital. In tax law the general distinction between capital and revenue is often given with reference to *CIR v Visser*,[67] in which it was stated,

> '"*Income" is what "capital" produces, or is something in the nature of interest or fruit as opposed to principal or tree.*'

Emslie remarks in agreement where an asset is used in a 'scheme of profit making' and does not form part of that which is instrumental in producing income, it is rightly classified as revenue in nature.[68] While deliberating over the quality of a receipt might be a challenging undertaking, its classification is binary; it cannot be something hybrid, or *sui generis*.[69]

In *CIR v George Forest Timber Company Limited* the courts drew a distinction between 'fixed capital' and 'floating capital',[70] where the latter is consumed by the trading activity only to be replenished once the

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[66] Smith op cit note 18.
[67] *CIR v Visser* (1937 TPD) 8 SATC 271 at p 276.
[68] Trevor S. Emslie 'ITC 1427: Options and the sale of the subject matter thereof – A triumph of substance over form' (1988) 248 De Rebus at 529.
[69] *Pyott Ltd v CIR* (1945 AD 128) 13 SATC 121 at p 126, per Davis, AJA, '*This is a halfway house of which I have no knowledge.*'
[70] *CIR v George Forest Timber Company Limited* (1924 AD 516) 1 SATC 20 at p 23.

income has been received. This is a legal analogy of financial capital in economics. Human capital was, nevertheless, also determined by the court in *Visser* as being no less substantial,[71] finding that income can flow equally from human exertion, ie the deployment of a person's mental faculties and imagination. Moreover, this case also made it clear that an asset may be capital in the hands of one, yet revenue in the hands of another.[72]

It is, therefore, necessary to differentiate; amongst the various tools developed by the court, the test of intention has emerged as the favoured alternative.

4.3 Intention

The test for intention is a two-pronged question, ie what a person intended in acquisition of an asset, and whether that intention persisted.[73] Ultimately, this turns on evidence, which in the first instance is a person's '*ipse dixit*'. Intention is discussed below with reference to relevant case law. Moreover, this discussion highlights two seminal cases which are integral to this analysis – namely, *CIR v Pick 'n Pay Employees Share Purchase Trust*,[74] and *CSARS v Wyner*.[75]

4.3.1 Original Intention

In *CIR v Stott*,[76] the taxpayer, a land surveyor, had bought and sold land over an extended period of time, two of which were assessed as revenue. In both cases, the taxpayer had subdivided the land, and sold the subdivisions at a profit, viewed by the Commissioner as demonstrative of a scheme of profit-making. The court held as follows:

- Determination of a capital or revenue intention rests in examining the taxpayer's purpose at the time of acquiring an asset (original intention), as well as his intention at the time of disposal.

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[71] *Visser* supra note 67 at p 276.
[72] Ibid.
[73] Tsatsawane, K 'Receipts or accruals of a capital nature' (2000) 8(2) *Jutas Business Law* at 40.
[74] *CIR v Pick 'n Pay Employees Share Purchase Trust* (1992 (4) SA 39 (A)) 54 SATC 271 ("the Pick 'n Pay case").
[75] *CSARS v Wyner* 66 SATC 1 [2003] 4 All SA 541 (SCA) ("the Wyner case").
[76] *CIR v Stott* (1928 AD 252) 3 SATC 253.

- Examination of intention necessarily requires the court taking cognisance of all surrounding facts and circumstances.[77]
- The taxpayer's '*ipse dixit*' is conclusive, 'in the absence of any other factors indicating that the taxpayer had engaged in a scheme of profit-making…'[78]
- A taxpayer is allowed to realise an asset to 'best advantage', which alone is insufficient to demonstrate a change of intention.[79]
- A revenue intention cannot rebuttably presumed in the case of a natural person unless there is some degree of continuity in their dealings.[80]

This case stands as general authority that a natural person, who engages in a single transaction, ought not to be presumed to be engaged in business activities; is permitted to realise an asset in the best possible manner, all the while considering the prevailing market norms and conditions.

4.3.2 Change of Intention

The *Stott* case was cited with support in *CIR v Paul*,[81] where the court held that it would be counterintuitive that a person would intend to sell an asset at a loss, and seeking the best price for an asset is not damning in itself. Additionally, in *John Bell and Co (Pty) Ltd v SIR* the court found that merely allowing the 'hand of time' to affect market conditions in a favourable manner pursuant to a taxpayer's decision to realise an asset is not sufficiently significant to constitute a change of intention.[82]

The clearest example of this is *Natal Estates v SIR*.[83] Here it was agreed that while 'original intention' is important, it is not conclusive. The list of corroborating (or contradicting) factors is not exhaustive, and that it behoves the court to consider the 'totality of facts' surrounding the matter

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[77] *Stott* supra note 76 at p 255.
[78] Ibid at p 262.
[79] Ibid at p 261.
[80] Ibid at p 260.
[81] *CIR v Paul* (1956 (3) SA 335 (A)) 21 SATC 1 at p 8.
[82] *John Bell and Co (Pty) Ltd v SIR* (1976 AD) 38 SATC 87 at p 103.
[83] *Natal Estates v SIR* (1975 (4) 177 (A)) 37 SATC 193.

when evaluating a taxpayer's '*ipse dixit*'. This is expressed as the having, 'crossed the Rubicon'.[84]

The taxpayer had also dealt in land, however, in contradistinction to *Stott*,[85] had devoted significant resources to developing the land for sale and in a manner which had all the hallmarks of a commercial undertaking. The court determined that he had 'crossed the Rubicon', and that the license to realise an asset to 'best advantage' was a question of degree, and only extends so far.

This is illustrated with reference to the *CIR v Nussbaum*,[86] where the taxpayer, who had become more actively involved in managing his investment portfolio, stipulated that his investment thesis was to sell assets when their dividend yield decreased. The price of a share in an efficient open market is roughly equivalent to its value; value is in essence determined with reference to the present value of the expected future cash flows to be enjoyed by owning the share. This necessarily implies that when expectations change, the market price responds commensurately. However, in the *Nussbaum* case, the practice was to profit from market pricing inefficiencies, not to realise the value of his investment. The court found this nuance to be sufficient to constitute him as holding shares as trading stock, not a capital asset. This practice is summarised with reference to intention most eloquently in stating,[87]

> …whether it is the profit which motivates the sale, or whether it is the sale which results in the profit. The former may constitute a change of intention while the latter does not.

4.3.3 Mixed Intention

It is possible for a taxpayer to have a mixed intention, intending an asset to be part speculative and capital investment. While the intention may be bipolar, as Davis AJA determined in the *Pyott* case the object of that intention can be possessive of only one absolute quality.[88] In such cases, a court would need to determine which intention is dominant in the mind

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[84] Ibid at p 220.
[85] *Stott* supra note 76.
[86] *CIR v Nussbaum* (1996 (4) SA 1156 (A)) 58 SATC 55.
[87] Phillip Haupt *Notes on South African Income Tax* (2020) ch 2 at p 47.
[88] *Pyott* supra note 69.

of the taxpayer in acquiring an asset, and give effect thereto, see *ITC 1185*,[89] citing as authority *COT v Glass,*[90] and *COT v Levy.*[91]

Per Steyn, CJ in *African Life Investment Corporation* v *SIR,*[92] for there to be an 'absolving dominant purpose' the execution of the main objective must give rise to occasions of what is merely an 'incidental change of investment'. In *CIR v Tod,*[93] it was held that dividend-capture cases represent a co-existent revenue intention, reasoning that the buying and selling of shares is not incidental but a *sine qua non* for the active pursuit of the dividend income.[94] The two are so inextricably linked as to complement each other so that one is not dominant over the other.

In general, the dominant intention may be ascertained by virtue of the taxpayer's demeanour after acquisition.[95] This effectively acts as objective corroboratory evidence of their '*ipse dixit*'.

Intention would be considered to have been revenue, if no dominant intention were able to be proved. This is consistent with s 102 of the Tax Administration Act 28 of 2011 ("the TAA"),[96] as it essentially creates a rebuttable presumption of revenue intention.[97]

4.3.4 Summative Statement

As is clear from the above, intention is required to be tested subjectively, as well as reconciled objectively with surrounding circumstances. A non-exhaustive list is provided below:

- '*Ipse dixit*' per *Stott*:[98] if there are no contracting facts, a taxpayer's stated intention is conclusive, see also *Malan v KBI.*[99]
- Length of time held: a shorter duration may be indicative of a revenue intention, but not an absolute confirmation.

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[89] *ITC 1185* (1972) 35 SATC 122(n) at p 123.
[90] *COT v Glass* (1962 (1) SA 872 (FC)) 24 SATC 499.
[91] *COT v Levy* (1952 (2) SA 413 (A)) 18 SATC 127.
[92] *African Life Investment Corporation* v *SIR* 31 SATC 163, 1969(4) S.A. 259 (A.D.) at p 176.
[93] *CIR v Tod* 45 SATC 1 1983(2) SA 364 (N) at p 9.
[94] Cf *African Life* supra note 92.
[95] Haupt op cit note 87 at p 45; cf *CIR v Lydenburg Platinum Ltd* 4 SATC 8 (1929 AD 137)
[96] Tax Administration Act, Act 28 of 2011.
[97] L. Olivier 'Capital versus revenue: Some guidance: notes' (2012) 45(1) 172-177 *De Jure.*
[98] *Stott* supra note 76.
[99] *Malan v KBI* 45 SATC 59, 1983 (3) SA 1 (AD).

- Continuity, or frequency: if there is continual buying and selling, it indicates revenue intention. However, a single transaction is not an absolute defence, see *Stephan v CIR,*[100] and the *Wyner* case.[101]
- Nature of business – if the asset is not one typically bought and sold in the taxpayer's business, it may be regarded as capital, see *SIR v The Trust Bank of Africa Ltd*.[102]
- Income stream: in the absence of an income stream, or a paucity thereof, where an enhancement in financial position can only be made by the selling of the asset, the asset is revenue in nature unless some other benefit is derived, see *Bloch v SIR.*[103]
- Special circumstances: where a sale is motivated by emergent and urgent circumstances, see *CIR v Nel*,[104] *ITC 1355*,[105] *ITC1379*,[106] and *ITC 1543* ("the Krugerrand cases").[107]
- Mixed Intentions: there is a rebuttable presumption of revenue intent.[108]

4.4 Case Analysis – *Pick 'n Pay* case

Pick 'n Pay case is considered the seminal case for establishing capital or revenue nature.[109] The facts were as follows. A scheme was devised in order to allow the employees of the Pick 'n Pay group of companies ("the Group") to acquire shares in the Group with leverage. Credit was constructively advanced to the employee by capital being paid to the trust as settlement of the employee's purchase obligation at the ruling price. The trust held these shares in a fiduciary capacity, while the employee

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[100] *Stephan v CIR* (1919 W.L.D. at 5).
[101] *Wyner* supra note 75.
[102] *SIR v The Trust Bank of Africa Ltd* 37 SATC 87, 1975 (2) SA 652 (A) at p 91.
[103] *Bloch v SIR* 42 SATC 7, 1980 (2) SA 401 (C).
[104] *CIR v Nel* 59 SATC 349.
[105] *ITC 1355* 44 SATC 132.
[106] *ITC 1379* 45 SATC 263.
[107] *ITC 1543* 54 SATC 446.
[108] TAA supra note 96 at s 102.
[109] *Pick 'n Pay* supra note 74.

was obligated repay the finance within ten years, but no sooner than five years.

The trust acquired shares in one of three ways:

- Open market operations where it did not have sufficient supply to meet demand;
- If an employee were to be dismissed for impropriety, or resign prior to the minimum five year period, their shares were forfeit in favour of the trust; or
- Over-the-counter purchase from employees, realising their holdings at the ruling market price.

Over the observation period it recorded a profit, most notably from forfeited shares, having been acquired at a price less than the ruling market price. Consequently, the Commissioner assessed the trust to tax on these gains as the proceeds of conducting trade. The trust made a case to the Special Court for Income Tax Matters in terms of which it argued these gains were fortuitous and not sought or worked for. Having found in favour of the Commissioner, the matter was ultimately decided on appeal to the Supreme Court of Appeal.

The court of appeal found for the appellant, however it was not unanimous. In his minority judgment, Nicholas AJA expressed a view that there is no universal test for 'of a capital nature', and each case is to be assessed independently on its merits. Nicholas echoed the sentiments of Innes,[110] in *Overseas Trust Corporation Limited v CIR*,[111] who remarked that,

> When an asset is realised as a mere change of investment there is no difference in character between the amount of enhancement and the balance of the proceeds.

The learned judge in the *Overseas Trust* case had gone on to cite the judgment handed down in *Californian Copper Syndicate v Inland Revenue*.[112] *In casu*, Lord Justice Clerk opined,

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[110] Ibid at p 288.

[111] *Overseas Trust Corporation Limited v CIR* (1926 AD 444) 2 SATC 71 at p 75.

[112] *Californian Copper Syndicate v Inland Revenue* (1904) (41 Sc. L.R. 691).

> It is equally well established that enhanced values obtaining from realisation or conversion of securities may be so assessable [as income] where what is done is not merely realisation or change of investment but an act done in what is truly the carrying on or the carrying out of a business [carrying on a trade]. [Emphasis added] [113]

And further,

> ...a gain made by an operation of business in carrying out a scheme for profit making, then it is revenue derived from capital productively employed, and must be income.[114]

Nicholas, AJA held that the court *a quo* had erred in setting the matter to turn on whether the trust was operating a scheme of profit making; the decisive issue was whether the sale of shares was a realisation of an investment, or the carrying on of a business. While the trust did not carry on a business in the conventional sense, it nevertheless was trading (buying and selling) the shares, from which profits had arisen. He, therefore, agreed with the Commissioner.

It is noteworthy that the minority and majority judgement found consensus on many legal issues, notwithstanding they reached differing conclusions. One of the most fundamental of these was whether the test for carrying on a business or trade was a subjective or objective test.[115] In *ITC 1413*,[116] involving a trust and an employee share incentive scheme, it was found that the test to be applied was objective. In distinction, thereto, the majority in the *Pick 'n Pay* case disagreed, and determined that it is insufficient that a taxpayer merely operate a business in a scheme of profit making; the taxpayer must do so with the intent to trade. Consequently, the court reaffirmed that the issue is what a taxpayer subjectively intended, not what was contemplated, but their objectives, aim and true purpose. Having determined this as being the lens through which to examine the issues before the court, the majority held:

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[113] Ibid.
[114] Ibid.
[115] Olivier *Capital* op cit note 97.
[116] *ITC 1413* (1985) 48 SATC 167.

- A motive to avail oneself of a profit is not decisive in itself. Albeit a highly relevant consideration, it must be taken in the context of an overall purpose.
- In assessing a multi-layered purpose, the dominant purpose must be given the greatest probative value. The dominant purpose in the case of the trust was to act as a nexus between employees and the listed equity market, and not to engage in operating a business.
- The trust did not engage in active trading of shares. Its actions were precipitated by an external force, and were executed in a manner not akin to typical commercial undertakings.
- The receipts were never deliberatively worked for by the taxpayer, but were an incidental consequence of its activities.

It is remarked that the test for the conduct of a trade proffered by majority judgment is the preferred test of the court, and should be applied when dealing with the capital or revenue nature of a receipt of accrual.[117] While acknowledging that the *Pick 'n Pay* case held a taxpayer's intention not to be decisive, albeit highly persuasive, it was remarked that the court exhibited contradictory behaviour in *CIR v Smith*,[118] holding the taxpayer's intention was decisive.[119] These observations are suggested as being irreconcilable with the Pick 'n Pay judgment,[120] however this may be possible on close examination of the court's finding in Smith, namely

> It is commonplace in our law to refer to objective criteria in order to determine a subjective intention…but that is no reason <u>to elevate </u>the objective facts above the subjective element (which is the true object of the inquiry) [emphasis added]

The court instead opined that objective factors should not be given greater probative value than subjective factors, referring to the Commissioner's contention that a 'reasonable prospect of a profit' (an objective standard) should be a test, independent of the taxpayer's

[117] Olivier *Capital* op cit note 97.
[118] *CIR v Smith* 65 SATC 6.
[119] Olivier *Capital* op cit note 97 at p 175.
[120] Ibid.

intention to make a profit.[121] This may be described as a neutral position on the issue, neither supporting nor rebuffing the *Pick 'n Pay* judgement Joubert is more critical and writes that the majority judgment erred in not considering the persisting definition of trading stock per s 1 of the Act,[122] namely,

> Anything …purchases or in any other manner acquired by the taxpayer for the purpose of … sale or exchange by him or on his behalf…

He argues that the taxpayer bought shares with the intention to sell them to employees, *prima facie* satisfying the definition of trading stock, from which one may infer a trade being conducted. The reliance of the court on the lack of a profit motive to qualify the proceeds as not gross income was unreasonable, given that absence of a profit does not equate to an absence of a trade being conducted.[123] This seems sensible as profit is the net income of a transaction, whereas the inquiry goes to gross income. Ultimately, Joubert posited that the fixed/floating capital concept should not be so quickly abandoned in favour of the scheme of profit-making tests; the two should co-exist, and complement each other.[124]

His contentions echo support for the minority judgment insofar as it advocates the view where a taxpayer is in possession of trading stock, as defined, it could only be for the purposes of trade. A profit motive, while persuasive, is not necessarily required in light of the view that the benefit of trade does not wholly originate from a profit derived from it.

In general, however, the *Pick 'n Pay* case's approach is considered the leading case law authority.[125]

4.5 Case Analysis – the *Wyner* case

The *Pick 'n Pay* case was instrumental in unifying the various tests proposed by the courts into a clearer, more discrete test, setting asunder uncertainty which had existed prior. The court, however, deviated from this stipulated subjective approach in determining

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[121] *Smith* supra note 118 at p 7.

[122] David Joubert 'Income tax: gross income - capital versus revenue, profit-making scheme or fixed / floating-capital test?' (2009) 30(2) 381-391 *De Jure.*

[123] Ibid at p 383, *cf De Beers Holdings (Pty) Ltd v CIR* 47 SATC 229 260.

[124] Joubert op cit note 122 at p 391.

[125] *Pick 'n Pay* supra note 74.

intention in the *Wyner* case.[126] It instead opted for the objective approach to test whether a business was being undertaken in a profit-making scheme. This represents a divergence, raising the question whether the approach in the *Pick 'n Pay* case should be sustained as the eminent authority. A discussion of this case follows below.

There existed property in Clifton, owned by the municipality for the City of Cape Town. This was held by Wyner under a pseudo long-term lease, with which came an entitlement to erect bungalows. On account of internal municipal deliberations, the respondent was given an ultimatum: she could purchase the property for ZAR802,000, obtain a limited real per a 20-year lease at market rates, or vacate the property without compensation for improvements made.

Being unable to afford the first two options, the respondent would have been forced to vacate if not for Investec Bank having approached her with an offer to extend short-term secured credit. The cascade of transactions which followed was that the property was bought from the municipality in October 1994, listed for sale with the assistance of an estate agent, and eventually sold in September 1995 for ZAR2,850,000. The issue, therefore, before the court was whether this amounted to operating a scheme of profit-making.

The respondent argued the following:

- It was not through her intervention that the municipality determined a willingness to sell at a price far less than market value.
- Her primary intention was to salvage her position to a point where she was able to repay her loan, and acquire a property within her means.
- The brevity between acquisition and sale was necessarily required by the terms under which Investec provided finance.

The court was not convinced. It held as follows:

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[126] *Wyner* supra note 75.

- The property was acquired with the intention to sell within 12 months at a profit, not that it would persist as the respondent's domicile.[127]
- The utilisation of an estate agent soon after the acquisition was indicative of this purpose.
- 'With the assistance of Investec the respondent devised a scheme whereby she could make the very large profit which was inherent in the offer.'[128] She clearly was motivated by the profit from the sale, and so engaged in a scheme of profit making.

The finding of the court was inappropriate. In the first instance, it ignored the precedent set by *Stott* that an isolated transaction should not be viewed in the case of an individual as indicative of a trading arrangement,[129] in which case the subjective '*ipse dixit*' should be given greater probative value. Secondly, a taxpayer has license to attain the best price. Furthermore, a distinction can be drawn between a salvage operation, which is undertaken as a business as in the *Stephan* case,[130] and what the respondent stated was a salvage of her domestic well-being.

In *ITC 1283*,[131] the taxpayer, Angolan-based coffee bean trader, determined to de-risk his capital, which had come under threat due to civil unrest, by converting all his assets into coffee beans. These were specifically purchased with the intention of importing them into South West Africa for resale back into fiat currency. As a coffee bean dealer, the taxpayer may reasonably be regarded to possess specialist knowledge of the market. Furthermore, during the period under review, *circa* April 1975 to April 1977, the price of the commodity saw an increase in value of over 600%.[132] A sceptical mind may consider the taxpayer's actions, while having an objective of a salvage operation, were also

[127] Ibid at p 11.
[128] Ibid at p 4.
[129] *Stott* supra note 76.
[130] *Stephan* supra note 100.
[131] *ITC 1283* 41 SATC 36 1978 (SW).
[132] https://tradingeconomics.com/commodities/coffee.

tailored to realise a profit on eventual sale as the market was to experience a steady upward pressure, ie mixed intention.

The court, nevertheless, maintained a position of the proceeds being of a capital nature. If the facts and circumstances were held to define an evidentiary standard for salvage, it would appear the taxpayer's *ipse dixit* cured all defects presented by the objective facts and circumstances. Comparatively, the representations made by Wyner regarding the motive for the transaction are more persuasive, moreover the court was unconvinced by her insistence of intending to conduct a salvage operation.

The court balanced its finding on the fact that that the she was ultimately swayed by the profit inherent in the transaction, which seems to ignore what was said in the *Paul* case.[133] If it is not in human nature to sell an asset at a loss, by corollary it is likewise not to decline to sell for hope that another party offers less money, ignoring any externalities.

Oguttu opines that the court misapplied the tenets of the *Pick 'n Pay* case. In a similar fashion, Wyner had merely transacted as a result of an external stimulus, and ought to have been considered properly as conducting a salvage operation.[134]

It is submitted that the court should not have tested the matter on what the taxpayer was willing to accept, but on what she was not willing to refuse. If the indicative sale price would have realised proceeds only sufficient to repay the loan and interest, recoup the value of the improvements to the property, and secure a domicile in the short to medium term (by lease or by ownership), a refusal by the taxpayer to contract would not seem to be a reasonable supposition.

Viewed holistically, the court may be criticised in conflating the subjective intention of Investec Bank to engage in a scheme of profit-making, as it was they who approached Wyner; they who contrived an opportunity to profit in employing their capital at a high interest yield with ample real security. Wyner's motives being construed as objectively revenue is able

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[133] *Paul* supra note 81.

[134] Annet Oguttu 'Salvage or profit-making scheme?' (2006) 14(3) 114-118 *Juta's Business Law.*

to be attributed, indeed, to her being merely the pawn of another's stratagem, which marred her intention but did not fundamentally alter it.

Surtees discusses *ITC 1755*,[135] which involved circumstances of sale under duress. Whilst not specifically linking this to the *Wyner* case, the author writes with apparent approval of the court's finding that where a taxpayer is forced to action by circumstance, profit-seeking as a principal motive is questionable.[136] Comparatively, the imminent threat of vagrancy is arguably a source of duress compelling action.

Notwithstanding these highlighted inconsistencies, at this point the Supreme Court of Appeal has contradicted itself with the result that the propriety of the test laid down in the *Pick 'n Pay* case is brought into question. Fortunately, in deciding between the objective or subject approach, the court in *CSARS v Capstone 556 (Pty) Ltd* upheld the subjective approach followed in the *Pick 'n Pay* case.[137] Furthermore, the court opined that in matters involving detailed commercial arrangements,[138]

> …the transaction must be viewed in its entirety from a commercial perspective and not be broken into component parts or subjected to narrow legalistic scrutiny.

4.6 Case Law Regarding Fortuitous Gains

Occasionally a taxpayer may accede to assets through fortuity. A canonical example would be the receipt of a donation, or inheritance, which is ordinarily regarded as capital in nature. Yet one must be mindful of the lessons of case law that it is not the object, but the subject, which determines the tax nature of an amount.

In *Morrison v CIR* the court held that the proceeds of gambling were gross income as the activities were sufficiently related to the ordinary business

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[135] *ITC 1755* 65 SATC 363 (2003).

[136] Surtees, P 'Sale of fixed property, the true nature of agreements, trading, and justifiable valuation.' (2004) 12(4) 184-192 *Juta's Business Law.*

[137] *CSARS v Capstone 556 (Pty) Ltd* (2016 (4) SA 341 (SCA)).

[138] Ibid at p 249 para [34].

of the taxpayer.[139] This reasoning is congruous with academic opinion.[140]

In *CIR v Strathmore Exploration and Management Ltd*,[141] it was held that certain shares received fortuitously – in this case at par value of 5s, not the market value of in excess of £1 – but were subsequently sold in a profit making scheme by the taxpayer necessarily qualified the proceeds as income, notwithstanding they were acquired ostensibly on a capital basis. One commentator has written approvingly of this decision, noting the presumption of capital nature of a fortuitous gain is not insuperable to broader facts and circumstances.[142]

Consequently, nothing prevents a trade being made out of decidedly seeking gratuity for gain.

4.7 Summative Statement

The discussion above illustrates the complexity of the question of defining what is of a capital nature. Based on the case law heard to date, this must be tested with reference to whether a taxpayer subjectively intended to operate a business in carrying out a scheme of profit making, but that such consideration is part of a broader inquiry involving the 'totality of facts' before, at, and after the event under scrutiny.

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[139] *Morrison v CIR* (1950 (2) SA 449 (A)) 16 SATC 377.

[140] Milton Segal & Warren Maroun 'The introduction of a gambling tax in South Africa–what are the odds on the implementation thereof?' (2014) 7(2) 361-374 *Journal of Economic and Financial Sciences.*

[141] *CIR v Strathmore Exploration and Management Ltd* (1956 (1) SA 591 (A)) 20 SATC 375.

[142] Griessel, R 'The Nature of the proceeds derived from the sale of an asset for the purposes of income tax' (1997) 9(2) *South African Mercantile Law Journal.*

5 CHAPTER V: THE ELEMENTS OF GROSS INCOME

5.1 Preamble

The following chapter elaborates on the key elements of the definition of gross income with reference to the respective case law, namely 'accrued to or received by' and 'an amount in cash of otherwise'. With respect to the latter, specific interest is had in examining valuation methodologies. This fully constitutes the analytical framework for the case studies.

5.2 Accrued to, or received by

This element of the gross income definition is principally concerned with timing, ie on which date does a tax event take place. Unlike in the US tax system, where a taxpayer has an election, it is implied by the Act that the timing of tax event for South African purposes is the earlier of receipt, or accrual.

It was determined in *SIR v Silverglen Investments (Pty) Ltd* that the Commissioner did not have a choice in the matter;[143] where a taxpayer had indicated an amount as having accrued, the Commissioner was required to tax them on that date. SARS has acknowledged this with approval in a discussion paper,[144] moreover it was established in *Kotze v KBI* that the Commissioner has latitude where a taxpayer omits to disclose an accrual.[145]

Of specific interest is the meaning of 'accrued to', with 'received by' being summarily stipulated as an amount received by a taxpayer 'on his own behalf and for his own benefit',[146] tested objectively,[147] by which it is intended by the payer that the recipient benefit.[148]

The main debate, which has taken place in South Africa jurisprudence, centres on whether 'accrued to' is to be considered as 'entitled to', or 'due and payable'. This is addressed below with reference to the pertinent case law.

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143 *SIR v Silverglen Investments (Pty) Ltd* (1969 AD) 30 SATC 199 at p 207.
144 SARS Interpretation Note 94.
145 *Kotze v KBI* (1992 (1) SA 825 (T)) 54 SATC 149.
146 *Geldenhuys v CIR* 1947 (3) SA 256 (C) at p 430.
147 *Ochberg v CIR* 5 SATC 93, 1931 AD 215 at pp 98-99.
148 *COT v G* [1981] (43 SATC 159) at p 163.

In *WH Lategan v CIR*,[149] the Cape Provincial Division of the Supreme Court heard an appeal against the inclusion of an unpaid portion of proceeds from the sale of wine. In terms of an agreement, this outstanding sum was payable in instalments in a subsequent year of assessment. In handing down judgment, Watemeyer J determined that it was not consistent with the Act at that time to determine no accrual had taken place merely because payment had been deferred. Therefore, it was rightly included in gross income on the basis that the taxpayer had become 'entitled' to it ("the Timing Principle").[150] The court did point out that some adjustment needed to be made to the amount so included to reflect its actual value, as in terms of the time value of money face value did not represent an honest accounting ("the Valuation Principle").[151]

The meaning of this term was dealt with by the Judiciary again in *Delfos v CIR.*[152] The *stare decisis* principle did not apply, wherefore the court was permitted to interpret the term as meaning 'due and payable'. Spiro recounts that there did not seem to be clear acceptance of the *Lategan* judgment in subsequent Appellate Divisions cases.[153]

Lategan was a Cape Provincial Court decision, which only set precedent for the Cape regional courts. Furthermore, the various decisions of the Appellate Division on the issue were merely *obiter dicta*. Nevertheless, it was the practice of the tax authority to follow the reasoning of *Lategan*, however only to the extent of the Timing Principle.[154]

Final authority was given in the *CIR v People's Stores (Walvis Bay) (Pty) Ltd*.[155] The court upheld the interpretation of the court in the *Lategan* case with respect to both the Timing and Valuation Principle. This latter part, however, has been nullified by a subsequently enacted proviso to the gross income definition in s 1 of the Act.

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149 *WH Lategan v CIR* (1926 CPD 203) 2 SATC 16.
150 Ibid at p 20.
151 Ibid at p 21.
152 *Delfos v CIR* (1933 AD 242) 6 SATC 92.
153 Erwin Spiro 'The receipts or accrual basis of the South African income tax' (1973) 6(2) 199-224 *The Comparative and International Law Journal of Southern Africa.*
154 L Van Zyl 'The Lategan case: The accrual principle – then and now' (2015) 19(1) 97-120 *Southern African Business Review.*
155 *CIR v People's Stores (Walvis Bay) (Pty) Ltd* (1990 (2) SA 353 (A)) 52 SATC 9.

While it is proposed that the 'due and payable' approach would result in greater commercial and economic amenity under a purposive approach required by the Constitution for the interpretation of statutes,[156] the *People's Stores* case remains the eminent authority for the interpretation of 'accrued to'. It has only been meaningfully added to by the judgment in *Mooi v SIR* whereby accrual is understood as meaning, 'unconditionally entitled to'.[157]

5.3 Total amount in cash, or otherwise

As noted above a crypto asset is a non-cash receipt, necessitating an examination of what constitutes an amount, secondly who bears the onus of proof, and thirdly how an amount is to be valued. Specific reference is made to principles relating to the valuation of shares.

The course of South African case law dealing with this element may be said to have begun in the *Lategan* case.[158] Watermeyer, J held in this judgment,

> …the word 'amount' must be given a wider meaning and must include not only money, but the value of every form of property earned by the taxpayer, whether corporeal or incorporeal, which has a money value.

Subsequently, the Appellate Division dealt with this issue in the *Delfos* case.[159] The court through the words of Wessels, JA opined,

> tax is to be assessed in money on all receipts or accruals having a money value. If it is something which is not money's worth or cannot be turned into money, it is not to be regarded as income.

The most recent Appellate Division decision, however, is found in *People's Stores* case,[160] wherein Hefer, JA upheld the decisions in *Lategan* and *Delfos*. In terms of these dicta, however, it is understood that an amount must be able to be changed into money for it to satisfy the ascribed meaning of the term. This is consistent with the finding in *Stander v CIR* that the test for an amount being money's worth was

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156 Van Zyl *Lategan* op cit note 154.
157 *Mooi v SIR* (1972 (1) SA 675 (A)) 34 SATC at p 11.
158 *Lategan* supra note 149.
159 *Delfos* supra note 152.
160 *People's Stores* supra note 155.

subjective,[161] ie the taxpayer actually had to be able to convert the amount into cash.

By necessary implication this raises the question of what is to be done in instances where no facility exists, domestically or internationally, to convert the asset into money's worth. It is a moot point, however, since the subjective approach was rejected by the Supreme Court of Appeal in *CSARS v Brummeria Renaissance (Pty) Ltd*.[162] The court found that the issue is only whether an amount has a money value, and in its judgement stated,

> the question whether such receipt or accrual can be turned into money is but one of the ways in which it can be determined whether or not this is the case; in other words, it does not follow that if a receipt or accrual cannot be turned into money, it has no money value.

For some perspective, in the *Ochberg* matter, the court was divided on the issue of whether the subjective or objective approach was more appropriate – the majority favouring the latter. Goldswain argues that the views expressed by the dissenting judges (the subjective approach) are more in line with s 39(2) of the Constitution, requiring a purposive approach to statutory interpretation;[163] the 'strict and literal' approach risks inequitable outcomes. If one were to accept the ability-to-pay principle, favoured by some as a sound basis for tax fairness,[164] one would possibly concede some doubt that it was not the intention of the Legislature for a taxpayer be burdened with factual liability for fictional (notional) income. In juxtaposition, it has been argued that the objective approach ensures fairness through certainty in the tax system, and predictability in the results of its application.[165]

While the *Brummeria* judgment may be described as contentious, it rejected the subjective approach in the *Stander* case as inappropriate –

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[161] *Stander v CIR* 59 SATC 212.

[162] *CSARS v Brummeria Renaissance (Pty) Ltd* (2007 SCA 99 (RSA)) 69 SATC 205.

[163] GK Goldswain 'The Purposive Approach to the interpretation of fiscal legislation – the winds of change.' (2008) 16(2) *Meditari* at 119.

[164] Allison Christians 'Introduction to Tax Policy Theory' 2018 *SSRN Journal*; cf Utz, Stephen G. 'Ability to Pay' (2002) 23(4) *Whittier Law Review* at 867; cf Smith op cit note 18.

[165] TL Nzima *An exploration of whether the valuation of amounts for gross income should adopt a subjective or objective approach* (published LLM thesis University of Kwazulu-Natal 2018).

a view accepted by several authors.[166] As such, it is held to be the subsisting legal position on issue.

Concern is now directed to the question of onus. A decade after the court handed down the *Delfos* judgment, the matter of *CIR v Butcher Bros (Pty) Ltd* was heard.[167] This case involved leasehold improvements, which at the time were not a special inclusion in gross income. The facts were that a lessee on a 50 year lease (with an option to renew for a further 49) was required to effect certain improvements on the taxpayer's land, ownership to which the taxpayer acceded on completion of the lease. The Commissioner, therefore, assessed the taxpayer to gross income on the improvements made.

The court in handing down its ruling qualified several important principles. First, for there to be an amount for the purposes of the gross income definition, it must have an 'ascertainable money value', and may not be notional. Secondly, the onus lies with the State to demonstrate the method by which this is to be attained, whereupon, and in terms of s 102(*1*)(e) of the TAA, the burden of proof reverts to the taxpayer to demonstrate by implication that a valuation is incorrect. Academic opinion has been proffered that this is the correct legal position,[168] noting that it has been subsequently upheld in the late 90s – see *ITC 1613*.[169] Lastly, it is noted that an amount being of substantial difficulty to value does not in itself equate to there not being an amount.[170]

In summary, these general conclusions are in accord with an opinion expressed by Moosa, who examined specifically the gross income nature of cryptocurrencies;[171] furthermore, he advocates an objective valuation approach to be adopted.

In selecting the most suitable valuation methodology, one could narrow the choice to two alternatives, debt-based instruments or equity-based

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[166] Ibid, cf Reinhard Rudd 'The tax treatment of interest in kind: the Brummeria case revisited?' (2019) 31(3) *South African Mercantile Law Journal* at 435; cf L. Olivier 'Taxability of interest-free loans: A storm in a teacup' (2008) 2008(1) *SALJ* at 151.
[167] *CIR v Butcher Bros (Pty) Ltd* (1945 AD 301) 13 SATC 21.
[168] Williams, R.C. 'Prizes and Income Tax' (1998) 115 *SALJ* at 430.
[169] *ITC 1613* (1997) 59 SATC 187 at 195.
[170] Haupt op cit note 87.
[171] F Moosa 'Cryptocurrencies: Do they qualify as "gross income"?' (2019) 44(1) *Journal for Juridical Science* at p 10.

instruments. Valuation of the former typically defers to discounted cash flow calculations in a similar manner as to how a bond is valued with reference to a prevailing yield curve;[172] this involves input variables which are known at the time of valuation. The return is calculable, which is attractive to an investor who values certainty (typically arising during risk-off periods in the market). In juxtaposition, an equity is valued based on an expectation of future earnings to be derived. This uncertainty makes it a risky asset, but also one without such a capped return. Generally, crypto assets do not represent a participatory interest, however their classification as risky assets align them more closely with the fundamentals of equity valuation than debt valuation.

With that in mind, attention is now given to the how the court has in the past valued an accrual of shares, for which *Lace Proprietary Mines Ltd v CIR* is examined.[173]

The issue before the court arose out of the appellant company having received as consideration for the sale of certain mining rights 1,000,000 shares in East Rand Mines Limited - a J.S.E. listed instrument - which the Commissioner assessed to tax at a valuation of 12s per share. The Commissioner in determining this valuation had taken into account the quoted middle market price of the shares (as they were quoted on the J.S.E.) on the day the agreement of purchase and sale was concluded, and the day on which the shares were allotted (per the contract, 30 days later). On appeal, it was required to be determined whether the Transvaal Provincial Division was correct in confirming the finding of the Special Court for Income Tax Appeals, that:[174]

> (a) In determining the value to be placed upon the said shares consideration must be given to the possible price which could have been obtained by selling the same over a period from the 29th November, 1933, onwards;
>
> (b) the correct method of ascertaining the value of the said shares was not to take the possible price which might have

[172] Douglas R. McKay & Daniel A. Peters 'Bond basics and the yield curve' (2019) 23(1) *Sage Journals.*
[173] *Lace Proprietary Mines Ltd v CIR* (1938 AD 267) 9 SATC 349.
[174] Ibid at p 351.

> been obtained by the sale of the whole of said one million shares on the date of the signing of the said agreement, namely, the 29th November, 1933.

The court of appeal in deliberating on the first of these enquiries did not approach the question from the point of view of determining whether the court *a quo* was correct in accepting the Commissioner's valuation, which it considered to be a question of fact and not within its competence to hear. Stratford, CJ, however found the only question of law embodied in (a) was whether the quoted price on allotment date was able to be used by the Commissioner on the basis that it may not be admissible as relevant evidence.[175]

While being regarded as a matter of degree,[176] the classical formulation for this concept is,

> The word 'relevant' means that any two facts to which it is applied are so related to each other that according to the common course of events one either taken by itself or in connection with other facts proves or renders probable the past, present, or future existence or non-existence of the other.

In commenting on the valuation in a tax context under US jurisprudence, Ballantine submits that in the absence of a clear evidentiary source, 'value' is that value which would be determined by a willing buyer and willing seller in an arm's length transaction.[177] While not being explicit, it necessarily ought to be implied that information parity exists between the parties. The issue before the court, therefore, can be expressed as an inquiry into what facts are sufficiently connected with value so as to be relevant.

Market volatility, as a financial metric, speaks broadly to the level of market efficiency.[178] The greater the volatility, the more pronounced is the disagreement among market participants as to the true (fair) value of

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175 Ibid at pp 361-362.

176 P.J. Schwikkard, S.E. van der Merwe & D.W. Collier et al, *Principles of Evidence* 3 ed (2010) at para 5.3.

177 Arthur A. Ballantine 'Valuations for income tax purposes' (1929) 15(1) *American Bar Association Journal* at pp 14-18.

178 P. Földvári and B. van Leeuwen 'What can price volatility tell us about market efficiency? Conditional heteroscedasticity in historical commodity price series' (2011) 5 *Cliometrica* at p 165.

the asset. On the other hand, liquidity, ie the number of buyers and sellers in a market, similarly affects value on account of its propensity to amplify volatility.[179]

The court found in the *Lace Proprietary Mines* case that price stability is relevant, having stated,[180]

> Such evidence, in my judgment, was admissible and pertinent to the question of value. The market price on the agreed date was admittedly relevant, but it might have been fictitious and momentary. The <u>stability of the market quotation</u> and its approximation to value is properly tested to some extent by reference to the market quotation before and after that date. [Emphasis added].

It is submitted as consistent with the above that a publicly quoted price is not decisive enough to terminate the inquiry, but must be tempered through consideration of the very real factors affecting a particular market. Consequently, it stands to reason that similarly in a crypto asset market volatility, and liquidity, are relevant in determining what constitutes a stable fair value price.

The judgment in the *Brummeria* case, does not obviate the facility for money value to be determined with reference to open market realisation (only that an inability thereto does not necessarily halt the inquiry). As such, it is contended this did not invalidate the sentiments put forth in *Lace Proprietary Mines*; it affected the test for determining existence of an amount as income, not the quantification of the amount, which is a separate issue.

Notwithstanding that public trading does add to the body of evidence, it is necessary, and logical, to consider instances where the asset in question is not publicly trade. With reference to *ITC 32*,[181] the court found that in the absence of evidence to the contrary, a valuation at par value is rebuttably presumed. This was confirmed in *ITC 391*,[182] where the court pronounced that,

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[179] Rui Ma, Hamish D. Anderson & Ben R. Marshall 'Market volatility, liquidity shocks, and stock returns: worldwide evidence' (2018) 49 *Pacific-Basin Finance Journal* at pp 164-199.
[180] *Lace Proprietary Mines* supra note 173 at p 362.
[181] *ITC 32* (1925 (NA)) 2 SATC 58.
[182] *ITC 391* (1937 (U)) 9 SATC 477.

> …in the absence of any market quotation or other evidence as to value, the value of shares…must be taken to be the nominal value at which they are issued.

These directives by the courts seem intuitively acceptable and reasonable, however their usefulness in practice may be somewhat curtailed under s 35(2) of the Companies Act 71 of 2008.[183]

5.4 Summative Statement

In the above chapter, the core elements of the gross income definition have been unpacked with reference to case law. While some elements present with a greater challenge in application than others, it is submitted the tax principles are well enough developed to delimit clearly the tax framework.

It is necessary, however, to establish how this framework operates in concert with the broader body of law in light of the issues related to the offeror's identity, the validity of the offer, and how airdrops functionally are structured in the market.

[183] Companies Act, Act 71 of 2008.

6 CHAPTER VI: FINANCIAL ANALYSIS[184]

It is common cause that the crypto asset class has been the best performing asset of the last decade with the top three posting five-year returns per the table below.[185]

Crypto Asset	Opening Price 01/03/2016	Closing Price 28/02/2021	*% Change*
Bitcoin	$ 436.7500	$ 45 261.5600	10263.27%
Ethereum	$ 6.3400	$ 1 424.2900	22365.14%
XRP	$ 0.0079	$ 0.4167	5174.68%
Stellar Lumens	$ 0.0019	$ 0.4065	20757.93%

Table 1[186]

Further, the asset class in comparison to the stock or bond market is still in its infancy. While historic data does not indicate future performance, as asset prices become more driven by fundamental utility, and less by speculation, further significant growth may be anticipated; financial giant JP Morgan opine market capitalisations could increase in excess of 100 per cent.[187]

At the early stages of a project,[188] the value potential is not readily reflected in a demand-driven price as the fruits of the Network Effect, otherwise known as Metcalfe's Law, take time.[189] According to research undertaken, blockchain networks do present with a strong adherence to this principle.[190] Consequently, the rationale for airdrops is based on this observation, ie increasing the number of users through artificial growth stimulation, rather than organic adoption over a broader time scale, or public sale.[191] Furthermore, projects would likely stagger their airdrops

[184] See addendum B for financial models, and data.
[185] This is measured in absolute return, not on a risk-adjusted basis.
[186] Data sourced from tradingview.com
[187] Times of India 'JP Morgan predicts Bitcoin to reach $146,000 in long run and $73,000 in short-term' available at *https://timesofindia.indiatimes.com/* accessed on 28th November 2021.
[188] Refer to Annexure B.
[189] The 'network effect' is a theory in Economics which determines the value derived from a good or service has exponential positive correlation to the total number of users making use of said good or service. The typical example is the telephone. cf Gallaugher op cit note 12.
[190] Ken Alabi 'Digital blockchain networks appear to be following Metcalfe's Law' (2017) 24 *Electronic Commerce Research and Applications* at 23.
[191] As noted above, public sale of tokens risks falling foul of laws governing financial securities offerings, most notably in the US.

for the reasons noted in the Flare Network white paper,[192] or otherwise place a restriction on their immediate sale in the open market.

In terms of the receipt-accrual principles, the Treasury would be in the position that they would be compelled to tax at the accrual stage (low price), whereas what a taxpayer may receive over the distribution period may embody significant value growth. Three projects have been selected: Polkadot and Solana, which are similar in ambit as Flare Network, and TerraLuna. Using actual pricing data from these three projects, an airdrop was simulated in terms of the following parameters:

- Effective tax rate: 35% with the assumption of a revenue nature.
- Distribution schedule: 25% upfront, valued at daily closing price; 75% evenly over the observation period, valued at monthly average price.
- Investment return rate: 6% NACM[193]

The instrument performance is detailed below.

Crypto Asset (Obs. Period)	**Accrual Price (Daily Close)**		**End Price**		**Nom. Growth (%)**	**Avg. Growth (%)**
Polkadot (14)	$	6.29	$	38.99	519.88%	37.13%
Solana (19)	$	0.73	$	172.40	23555.41%	1239.76%
TerraLuna (28)	$	1.28	$	41.09	3110.48%	111.09%

Table 2[194]

A differential analysis of taxation under the legislated accrual method against a theoretical receipts-based approach yielded the following results.

Crypto Asset	**Accrual-based Revenue**		**Receipts-based Revenue**		**Differential (%)**
Polkadot	$	3 999.1124	$	10 635.4286	165.94%
Solana	$	928.1081	$	10 630.1975	1045.36%
TerraLuna[195]	$	1 505.2800	$	740.3600	-50.82%

192 If users receive a full distribution upfront, there is a high probability they would offload their holdings in full immediately on the open market leading to price instability; alternatively, if distribution is incremental, as the project grows and demonstrates value, users would be more inclined to participate in the project through governance or staking than to sell outright.

193 The assumption is that the airdrop is of a revenue nature, however an investment rate of return, as per Nexo crypto bank, is used to reflect the effect of the preservation of units at accrual date.

194 Data sourced from www.coinmarketcap.com.

195 Currently there is no option to investment this asset at a crypto bank; returns may be generated by staking, but vary. 6 per cent is assumed to have been possible.

Table 3[196]

While it is acknowledged the models used to evaluate these simulated scenarios are rudimentary, and that more detailed models could be constructed, table 3 does illustrate the increases in revenue collection which would have been possible. TerraLuna was selected specifically on account of it being characterised by negative price performance in the early stages. From the point of view of risk management however, given the assumption airdrops would accrue at relatively low prices, it is asserted that ratio of potential upside against potential downside represents excellent return for government coffers relative to risk.[197]

In general, the other possible benefits are:

- The South African Reserve Bank has an inflation-targeting mandate, which precludes management of the external value of the currency. Application of taxation of airdrops on a receipt basis effects a pseudo currency hedge, and may realise additional ZAR tax revenue as the local currency depreciates against other major currencies in the short-medium term.
- Without any investment return, it is a mathematical certainty that taxpayers would be indifferent to either method with reference to the nominal value of their asset portfolios at the end of the observation period, *ceteris paribus*. Real value can be maintained through investment, which necessarily secures additional recurrent revenue for the treasury, as opposed to holding the asset with a negative carry.

[196] Data sourced from www.coinmarketcap.com
[197] The TerraLuna project experienced a massive software attack during May-22, losing nearly 100% of value.

7 CHAPTER VII: CASE STUDIES

7.1 *Preamble*

The following chapter is undertaken to evaluate how the principles set forth in the previous chapters might interact with empirical scenarios. This is done by examining the two case studies, and, where possible, condensing findings into principles which may be applied generally.

7.2 *Airdrops as Compensation*

The SARS and HMRC guidelines are congruous in their treatment of airdrops as quid pro quo as taxable. This is common cause as the rendering of services is highly likely to be operating a business in carrying out a scheme of profit-making. However, there is nothing as explicit in the Documentation which would make it irrefutably clear that the airdrop is consideration for services rendered, or to be rendered, as envisioned in the guidance – this representing one extreme of the tax spectrum. Yet, there is sufficient circumstantial evidence to question whether or not they are, indeed, gratuitous disposals – representing the other extreme of the spectrum. Further analysis is, therefore, necessary.

CAVEAT: the Mainnet is referred to as having been placed in the role of offeror, however this discussion is not predicated thereon.

In the matter of *Avis v Verseput,* [198] an excellent starting point for this discussion, Centlivres, JA is noted as stipulating quite clearly,

> '*On whom was the* <u>*onus*</u> *to show that it was a gift? A gift is never presumed: the intention to donate must be clearly proved…'*

Various cases have referred back to the judgment of Van Zyl, J in *CSARS v Marx*,[199] wherein he defined a pure donation as,

> an agreement which has been induced by <u>pure</u> (or disinterested) benevolence or sheer liberality, whereby a person under no legal obligation undertakes to give something… for which the donor receives no consideration nor <u>expects any future advantage</u>. [Emphasis added]

In any event, s 102 of the TAA responds to the question put by Centlivres in that it is the onus of the taxpayer to demonstrate that an airdrop is a donation, ie not taxable.

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[198] *Avis v Verseput* (1943 AD 331).
[199] *CSARS v Marx* 2006 (4) SA 195 (C).

In order to evaluate this concern within the context of FLR airdrop, one must have regard to how the native token is utilised post distribution. This lies in examining an essential component of the infrastructure, the Flare Time Series Oracle ("FTSO").

While the Mainnet is availed upon by users to create SMART contracts, the underling code bases of these contracts can only be executed when set conditions are met. In practice, these conditions invariably reference the market price of particular assets.[200] This pricing cannot and is not generated by the Mainnet itself, but by the FTSO, which provides the required data streams. It operates as follows.

At specified time intervals, participating FLR holders on the FTSO engage in price voting.[201] This creates a price distribution curve, of which the upper and lower quartiles are discarded ("the TD"). A mean, weighted on votes, is calculated, resulting in the output required by the Mainnet. The efficacy of the price voting relies on the theory in statistics that accuracy of a mean, or statistical power, is positively correlated to number of observations, which reduces the standard error inherent in any estimation; therefore, the data output is of higher quality, ie more accurate, if 20 people vote with five votes each, than if five people vote with 20 votes each. The accuracy of the pricing is tantamount to determining the competitiveness of the Mainnet as a product solution in the marketplace.[202]

By transitive logic, as the Mainnet is absolutely dependent on FTSO data streams, and FTSO data streams are absolutely dependent on FLR votes, it is asserted that the one thing required by the Mainnet for any operation, let alone competitive operation, is the one thing it delivers into the hands of others. However, it is argued this is not done so out of 'pure

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[200] FN Whitepaper op cit note 48. Section 3.2.1 refers to the FTSO initially providing the following pricing data: XRPFLR, USD/FLR, BTC/FLR and XLMFLR.

[201] There is no restriction on the number of time series the FTSO can create; it will vote to create data streams based on the demands of the Mainnet.

[202] This is better understood by bearing in mind that a decentralised finance platform such as Flare Networks competes for market share by demonstrating they are able to execute SMART contracts at a lower error rate, where an error is executing SMART contract code based on a price input which is inaccurate viewed objectively. A concrete example, if the SMART contract were charge interest at 5% when the price is below x, but 10% when it is above x, the accuracy of the data stream has a very real effect on the proper execution of the parties' agreement.

(or disinterested) benevolence', on the contrary, it is done because it stands to place itself at greatest advantage by ensuring a wide base of voters. It is contended that the FLR distribution is not a pure donation, for want of the essential elements demanded van Zyl in the *Marx* case, and the common law.

While this does not represent that the airdrop is compensation, it does necessarily bias the matter in favour of that conclusion. Nevertheless, there do exist other forms of donation. In the *Avis* case, Watermeyer ACJ, commenting on the Roman Dutch law authorities, made reference to what he termed 'remuneratory donations'; whether a donation is remuneratory, 'must, of course, depend upon the motive inspiring the gift.' It is generally understood that such donations occur when a donor wishes to discharge a perceived moral obligation to the donee for services or benefits received in the past, subject to the two-thirds rule.[203]

In terms of para 3.3 of the FN Whitepaper,[204]

> The Spark token will be distributed to the XRP ecosystem in what <u>is intended to be</u> a soft fork that <u>generates considerable utility</u> for the original chain (XRP), <u>by</u> <u>enabling</u> the use of XRP with Turing complete <u>smart contracts</u>. [Emphasis added]

It is asserted from the above that the FLR holders' participation in the FTSO is *sine qua non* for enabling SMART contracts on the Flare Network. It appears from this that the airdrop is more akin to a remuneratory donation, than a pure donation, however it neither fits that description, as any benefits having been provided prior to distribution is factually impossible.

Persevering on from this position, the inquiry could be framed from the express language, conjoined with the circumstantial facts, that in accepting the FLR distribution a taxpayer has accepted an attaching tacit term, compelling a counter-performance. Nevertheless, the more likely conclusion is that no civil obligation has been created, but it may be supposed that what has been created is a 'natural obligation'.

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[203] The two-thirds rule is that if the value of the services or benefit is not sufficiently close to the value of the donation, it is not regarded as remuneratory, but gratuitous.
[204] FN Whitepaper op cit note 48

The idea of the natural obligation has been a source of discussion for centuries, and in particular among French scholars.[205] Pothier and Toullier expressed similar views, regarding the natural obligation as having a single legal consequence, ie that where a debtor makes payment *sua sponte*, such payment is valid, final and possessive of a just cause.[206] Marcade approached the topic from an evidentiary viewpoint insofar as the obligation is rebuttably presumed not to exist or to be invalid, however that performance is sufficient evidence to demonstrate such a presumption is erroneous, and may be rejected.[207] The thematic commonality appears to be that all insufficiencies of an obligation, which renders it natural not civil, are cured by the debtor's performance. A suggested definition, therefore, is: an obligation, having legal effects, which is unenforceable by a creditor by traditional remedy until the debtor has performed.[208] In the South African context of contractual law, it is accepted that once a natural obligation is performed by a debtor, the obligation has full legal effect as if it were a civil obligation *ab initio*.[209]

It is observed from the *Morrison* case,[210] that South African law does regard natural obligations as giving rise to tax consequences only in the discharge of the debtor's performance. Understood in terms of the meaning of 'accrued to' a natural obligation could be said to be conditional on the animus of the debtor – violating the *Mooi* case requirement – which can only become unconditional in execution *post factum*.[211] Furthermore, there seems to be little difficulty in reconciling the subjective nature of a natural obligation in the tax context to the subjective test laid forth in the *Pick 'n Pay* case. That is to say it is immaterial whether a taxpayer as the debtor performed in terms of a civil obligation or a natural obligation,[212] but that they performed because of

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[205] Ernst G LaFleur Jr. 'Natural obligations' (1951) 12(1) *Louisiana Law Review.*
[206] Ibid.
[207] Ibid.
[208] David V. Snyder 'The case of natural obligations' (1995) 56 *Louisiana Law Review* at 423.
[209] Hutchison et al op cit note 47 at p 8.
[210] *Morrison* supra note 139.
[211] *Mooi* supra note 157.
[212] Essentially, this is only a meaningful distinction where a performance has to be demanded.

their subjective intention to conduct trade whereby services are provided for value duly received from the creditor.

It is further useful to consider the issue from the perspective of the basis for contract in light of the historic struggle between the Roman Dutch and English common law traditions in South Africa. The former element of South African jurisprudence champions the approach of the Roman-Dutch writers in that the basis of contract is subjective, ie there must be a clear meeting of minds (*concursus animorum*). In contrast, the English court decision in *Smith v Hughes* made it quite clear the English common law position is objective, wherein the judgment of Blackburn, J read,[213]

> If, whatever a man's real intention may be, he so conducts himself that a reasonable man would believe that he was assenting to the terms proposed by the other party, and that other party upon that belief enters into the contract with him, the man thus conducting himself would be equally bound as if he had intended to agree to the other party's terms.

The South African court cemented our law as being fundamentally based on the objective approach, where it quoted the dictum of Blackburn with approval in the Appellate Division case *Pieters and Co v Salomon*.[214] This position was strongly reinforced by Wessels, JA in *South African Railways and Harbours v National Bank of South Africa Ltd*.[215]

These cases notwithstanding, it is the opinion of Hutchison that the relevance of a party's subjective animus does remain relevant to a degree.[216] However, it would appear from the decisions of the court that the actions of a person, which create a reasonable (objective) belief of assent in the mind of the counterparty, trumps their subjective intention with respect to the creation of civil obligations.

Considering these matters in the context of the case study as it relates to South African income tax, it would appear to place the law at a certain level of disharmony. To the extent that the recipient of the airdrop has created the reasonable belief in the mind of the counterparty (which

[213] *Smith v Hughes* (1871) LR 6 QB 597.
[214] *Pieters and Co v Salomon* 1911 AD 121 at pp 130, 137.
[215] *South African Railways and Harbours v National Bank of South Africa Ltd* 1924 AD 704 at pp 715-716.
[216] Hutchison et al op cit note 47 at p 18.

would appear to be the case given a neutral reading of the facts), such a recipient would be estopped from defending a claim for performance on the basis of dissensus, and consequently may be duly compelled to perform. Yet, it is clear from the *Pick 'n Pay* case, a taxpayer must have a subjective intention to carry on a trade for the purposes of his receipts being taxable as revenue, contingent on there being no contradicting facts. This may require a court to have regard to the knowledge and expertise of the taxpayer. Therefore, one who claims their subjective intention was to receive the airdrop gratuitously, but who may be presumed to have knowledge of the subtleties of the law, would need to rebut this presumption as part of motivating a lack of intention to trade; in contrast a similar claim by a person with only a rudimentary understanding of the law, would more readily be taken as evidence amounting to proof, *ipso facto*.

It is suggested that to the extent that the taxpayer, subsequent to receiving the FLR distribution, proceeds to engage in voting activities on the FTSO, it may be demonstrative of their subjective animus being that the asset was received in exchange for undertaking an obligation to provide a service. The language in the Documentation does not make it clear that obvious reciprocal civil obligations have been created with respect to services for crypto assets. Nevertheless, they may as well have been civil, post-performance.

In contrast, if a taxpayer objectively has exactly the same motive in receiving the airdrop (as one who engages in FTSO voting), but does nothing, there would be no dissenting facts, *ceteris paribus*, to refute an assertion by them that their subjective intention was merely to receive a crypto asset under lucrative title. Trade should necessarily be evidenced by activity, not passivity.

In concluding this part of the discussion, it is suggested that the issues considered above are opaque on account that the law contemplating them is founded upon legal principles refined to service a society of a by-gone era. Law is an organism in a sense, and should evolve for it to maintain integrity of purpose. A legal system in general exists to serve and order society by members mutually agreeing – in terms of the social contract – to the deliberation of a central authority. The belief that a court is neutral, unbiased, and insuperable against duress, or intimidation, makes it acceptable as the final arbiter of rights and duties. It is submitted that even this may be a convenient delusion to some degree, as it is unavoidable that the more centralised power becomes, the more susceptible it is to misuse. It is for this reason global politics have evolved to favour democracy, over autocracy. In the South African justice system, if a decision is appealed to its fullest extent, it would ultimately be determined not by one judge, but by a full bench – democratisation of justice.

It is observed that an organisation's ability to enforce its rights through the notion of a judiciary becomes increasingly more impractical the more decentralised it becomes. Furthermore, decentralisation is being sought, *inter alia*, because it removes the single point of failure risk,[217] an iteration of which could be the frustration of performance on a contract by a party in bad faith. While the nature of a piece of computer code may reflect human biases, or prefer one party over the other, a subscriber thereto should be estopped from crying foul play under the tenet of '*caveat subscriptor*' – the code is knowable, immutable, and its operation able to be simulated in advance; computer code is deterministic. Furthermore, it is precisely this determinism which precludes bias from an adjudicator impacting the outcome, as code will execute mathematically, and without the burden of human sentiment.

If society stands now at the precipice of the Fourth Industrial Revolution, why should the benefit derived from a civil right be contingent on the enforceability by a court, when it may be enforced just as well (and arguably to much greater effect) by decentralised software in a self-regulating framework.

In the context of the Flare Network the system is designed in such a way that an FLR holder's value is systematically eroded to the extent they are guilty of positive, or negative, malperformance. If determining not to

[217] Giulio Caldarelli 'Understanding the Blockchain Oracle Problem: A call for action' (2020) 11(11) *MDPI Open Access Journals.*

provide the services to the FTSO, which is implied as necessary by the stated intent of the Flare Network, the real value of the assets received will tend to zero.

The question was expressed well by Brian Brooks, opining,[218]

> There are risks created when human beings are involved in making decisions. They might be negligent, they might be self-dealing, they might be discriminators, or they might be greedy...when you start doing those functions algorithmically you take all of that out of the equation. I would just ask why is it so clear that the legacy laws apply to the algorithmic function just because it's the same activity when the whole point of the innovation was to solve the risk that the original law was a band-aid for.

As taxation is applied with reference to a broader body of law, for taxation to keep pace with human advancement surely the law underpinning it needs to evolve to recognise that a judicial system no longer is the only means through which to enforce the rights of members of society in terms of those values resting at the core of justice – integrity, neutrality, fairness, among others?

7.3 *Taxpayer reactions to airdrops*

7.3.1 *Preamble*

CAVEAT: the discussion below assumes the airdrops to be gratuitous.

The FLR airdrop is not a hard fork. The reference to the XRP Ledger is merely a means by which offerees may be determined. That offer has then to be accepted, or lapse.

When the FN Whitepaper was published, market participants may have reacted in many different ways, each with its own nuance. This discussion presupposes one of two reactions.

- XRP investors (holders with capital intentions) merely accepted the offer in the prescribed form ("hodlers");[219] or

[218] The quotation is transcribed from an interview at the Digital Asset Compliance and Market Integrity Summit 2021 given jointly by Brian Brooks and Christopher Giancarlo, former chairman of the United States Commodities and Futures Trading Commission. Brian Brooks is a United States attorney, and former head of the United States Office of the Comptroller of the Currency.

[219] A 'hodler' is a term in the crypto asset space for a quintessential capital investor.

- Persons acquired XRP to hold on the Snapshot date, after which exited their position ("opportunists").

These examples are chosen with a view to examining 'of a capital nature'. However, in summarily dealing with the nature of the SGB distribution, under the tenets of the *Pick 'n Pay* case, and the notes concerning intention, all cases under which taxpayers acquired SGB took place with reference to their respective positions prior to the Songbird Network ever having been contrived. As such, taxpayers may be regarded as not having subjectively intended to trade in these assets for want of them being able to form any intention at all. The argument that a canary network was reasonably foreseeable such that taxpayer ought to have contemplated it is rejected; *Pick 'n Pay* made it clear the inquiry does not concern itself with what a taxpayer merely contemplates, or by necessarily implication ought to have contemplated.

Therefore, the SGB distribution is believed to be of a capital nature, as it was not designedly worked for, or sought, but fortuitous; notwithstanding this, as was made clear in the *Strathmore Exploration* case,[220] this does not preclude taxpayers from subsequently dealing with these assets on revenue account in operating a business in a scheme of profit making.

The tax effects of such a circumstance are the taxpayer would be deemed to have disposed of their capital asset in terms of para 12 of sch 8 for an amount equal to market value on the date on which their intention with respect to the asset changed. This would constitute a capital gains tax event, and any gain or loss from the deemed disposal would be included in the taxpayer's taxable income, and taxed at their marginal rate.

7.3.2 Opportunists

Crypto asset airdrops could attract a similar strategy to dividend-farming in the stock market. Assume the following hypothetical example: A taxpayer purchases 1,000,000 XRP; transfers them to a custodial wallet for 10-15 minutes for the Snapshot; returns them to an exchange, and sells them. Notwithstanding the sale, however, the option to accept an

[220] *Strathmore Exploration* supra note 141.

offer based on that temporary holding persists. The taxpayer has not secured an income stream, but has segregated an option which was embedded in XRP by the airdrop announcement at a cost equivalent to the bid-offer spread.[221]

The *Tod* and *African Life* cases were not concerned with the tax treatment of the dividend income but the sale of the base asset. They seemingly do not apply. Secondly, c*eteris paribus*, the capital lost through the bid-offer spread constitutes expenditure, not income, to obtain merely a right to exercise an option to receive an airdrop, not the airdrop itself.[222]

In cases where an option is exercised with the intention to sell the underlying asset, the courts have in the past considered the nature of the proceeds. In terms of the judgment in *Matla Coal Ltd v CIR,*[223] being upheld in *ITC 1427,*[224] the nature of the proceeds from the sale of an asset acquired through the exercise of an option is determined with reference to the taxpayer's intention at the time of acquiring the option, not the time of exercising it.[225]

Per *Stott*,[226] a taxpayer's '*ipse dixit*' is decisive in the absence of any contradicting facts. Each case would differ on facts, and one could only conjecture on what may tip the scales between capital and revenue. Three possible contingences are considered below:

- Income stream: assets which generate no income tend to be revenue assets. However, FLR is able to be used to generate income in two ways. First, as described in chapter 7.2 by the use of FLR in the FTSO voting mechanism, or alternatively through utilising it to collateralise SMART contracts created on the Mainnet, for which a fee is paid by the users.

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[221] Typically, an embedded option is inseparable from the host asset, and cannot be traded independently. Here the option can be separated as it vests based on a non-persistent holding at a specific time. However, it has in common that the option may not be traded.
[222] Note that the option is exercised effectively by updating one's XRP Ledger address metadata, indicating acceptance of the offer to acquire the asset at a stipulated price, in casu for no consideration.
[223] *Matla Coal Limited v CIR* (22/85) [1986] ZASCA 120.
[224] *ITC 1427* 50 SATC 25.
[225] Cf *SAM v COT* (1980 (2) SA 75 (ZR)) 42 SATC 1.
[226] *Stott* supra note 76.

- Holding period: the segregated embedded option is not tradeable as a stand-alone instrument, and can only be exercised through delivery of the underlying. Notwithstanding this, a forward sale may be entered into with a third party. If this were the case on or before the acquisition of the embedded option, the intention would likely be a trading intention. The principle of 'best advantage' per *Stott* is predicated on the asset having been held, and does not seem to provide any persuasive value other than in cases where a forward sale is entered into after acquisition.[227]
- Commercial nature: if the taxpayer generally trades in financial instruments, it would represent an objective fact counting against their '*ipse dixit*' of capital intent. While this is not conclusive, much would rest on actions taken after acquisition.[228]

Assuming that a taxpayer would as a matter of course argue a capital intention, the following is proposed.

The financial return on capital represents an opportunity which no investor would likely refuse, given the potentially massive income stream and the relatively low level of capital required, ie the option premium. Thus, the argument of acquisition being to enable a lucrative income-generating capital asset is highly persuasive; that an income stream so vastly outmatches the capital should not mar what is a capital intention.

With respect to a taxpayer's business, the matter would necessarily turn on whether traditional buying and selling of assets is sufficiently distinct from concentrated participation in the airdrop. A comparison may be drawn with reference to control. A trader has control over what to buy, what to sell and when; this equates to his actual ongoing purpose. The element of happenstance inherent in airdrops may distinguishes the two activities insofar as it could not reasonably be said that the actual purpose of the taxpayer is to trade on a hope. Further, as was raised in *Stott*, that an individual undertakes a single transaction should not equate to them conducting a profitable trade – there must be some level of continuity.[229]

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[227] Ibid.
[228] Haupt op cit note 87.
[229] *Stott* supra note 76.

This raises the point, however, that given the proliferation of XRP-related airdrops,[230] what was before just a *spes* comes closer to being a reasonable expectation. A taxpayer who continually seeks airdrops may begin to exhibit this quality of continuity. Nevertheless, it is a question of fact.

Ultimately in isolated cases a taxpayer's claim that their intention towards the option rests on acquiring an income producing asset is more persuasive. If they subsequently decide to exercise the option with a view to selling the underlying at a profit, while it could be argued this signifies a change of intention the case law does not place any emphasis on the taxpayer's intention at the time of sale.

A taxpayer may have a mixed intention in acquiring the option. The taxpayer presumably has a revenue intention unless a dominant capital intention is demonstrated. Per the case law,[231] it is submitted that the 'absolving dominant purpose' would need to be determined with reference to how long the taxpayer held the asset in an income-generating arrangement, and how the proceeds from an eventual sale compare to the income generated. If the greater profitability was derived through the sale, it could be that the income generation was incidental, and *vice versa*. Further, if income does not rise commensurately with asset price, it may be inferred that a taxpayer is employing a similar decision-making framework as *Nussbaum*;[232] the inherent profit in the asset is what motivates the sale.

The above discussion is predicated on the contention that the taxpayer has, indeed, acquired an option, which directs the inquiry to the original intention only. If this proposition is dismissed, the case law regarding a change of intention, or mixed intention, would apply – the Rubicon test.

7.3.3 *Hodlers*

Crypto investors have been admonished that their holdings are so akin to Krugerrands that only special circumstances motivating realisation

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[230] To date, the following airdrops based on XRP have been announced: Spark (FLR) pending, Songbird (SGB), Evernode (EVRS) pending, Aesthetes (ELS), Sologenic (SOLO).
[231] *African Life* supra note 92, and Haupt op cit note 87.
[232] *Nussbaum* supra note 86.

could possibly defend a claim of capital nature – see the Krugerrand cases.[233]

While true in the early stages, crypto assets no longer are plagued by negative carry, and may be used to generate income. An excellent example is Nexo. A fully regulated financial institution based in Switzerland with assets under management in excess of USD13 billion, Nexo pay to their depositors anything between six and eight per cent of value on crypto assets, and as much as 12 per cent on US-dollar stablecoins.[234] Additionally, as discussed above, the latest iterations of the Blockchain technology invariably have means by which to apply one's asset to produce income other than through dealing. For these reasons, or a justification based on use as a currency, hedge or store of value, the contention that a taxpayer could only realise a profit in a crypto asset airdrop by dealing with it as trading stock is significantly weaker than in the past. A capital intention is a very real possibility.

A distinction must be drawn in that an opportunist transacts deliberately to segregate and acquire an embedded option, whereas a hodler does not. They acquire the option by virtue of their investment, not by virtue of specific capital deployment. The case law concerning options would have difficulty finding application as it is predicated on a taxpayer having an intention to acquire an option, which is not the case for a long-term holder. It is asserted capital intention ought to be determined with reference to two inquiries in such cases.

If one returns to a fundamental understanding of capital, it is that which gives rise to income; fixed capital remains intact, whereas floating capital is consumed in use to be replenished with the profit. In the case of a loan of money, interest is the civil fruits of the capital, or similarly for a farm or property, generating natural fruits or rent. The uniting feature in all of these is that the taxpayer clearly uses fixed capital to generate the amount coming in, whereupon it is suggested that this case study would turn on whether a taxpayer can be said to have used his fixed capital.

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[233] Haupt op cit note 87.
[234] www.nexo.io.

It is submitted that a taxpayer cannot readily be said to use their capital. In the examples above, the taxpayer determines where and how to place their capital such that it results in an income stream. In juxtaposition to an opportunist, who specifically uses financial capital to further their objective with respect to the airdrop, the offer in the case of a hodler is external to their actions.[235] The only import XRP holdings have in the matter is as a means by which the offeror determines eligibility, which distinguishes the two approaches: a hodler is eligible, whereas an opportunist makes themselves eligible.

The second grounds to determine intention is with reference to the *Pick 'n Pay* case, ie revenue must be, '*…designedly sought, and worked for.*' As noted, it is not the taxpayer who seeks out the airdrop right by their own design, but by the design of the offeror it is conferred on them. In this sense it is very much fortuitous, a happenstance to their holding of an asset.

In contrast, a similar argument as above could be put that with the frequency with which XRP holders are being airdropped crypto assets of newly launched projects, it may rise to a reasonable expectation. This brings into question whether a hodler on a prospective basis holds XRP as an income-producing asset through several channels, regular interest payments and irregular airdrop receipts. While this would tend to paint airdrops with the quality of income, it is suggested the element of fortuitousness and the inability of the taxpayer to influence that outcome is a strong hurdle to arriving at this conclusion.

This notwithstanding, nothing precludes the airdropped assets received under lucrative title to become part of the taxpayer's trading stock. This would result in a deemed disposal as discussed in ch 7.4.1, *supra*, thereafter the sale of the asset would be revenue. The base cost of the asset received as a donation from a non-resident would equate to its market value.[236]

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235 The greatest action taken by a hodler is simply to respond to an offer, ie exercise their option.

236 Paragraph 20(*h*)(vi) of sch 8 of the Act.

While it is conceded that the deliberate seeking of gratuitous dispositions for the purposes of resale would constitute a trade (notwithstanding the element of donation), it is asserted a long-term holder of XRP's receipt of an airdrop would not rise to the level of activity envisioned in the *Pick 'n Pay* in the majority of cases. Further, rejection of a gift would be so contrary to human nature, that acceptance should not amount to satisfying the Rubicon test.

The decisive question is suggested as being: does the taxpayer seek the fortuity, or does the fortuity find the taxpayer?

By way of a concluding remark, in cases where hodlers engage in a scheme of the opportunist in such a way as to demonstrate a revenue intention, such taxpayers are at risk to being regarded as having changed their intention towards their long-term holdings. The argument being that a taxpayer cannot be in two minds towards the same object unless they have a co-existent intention. The loss of a capital designation on holdings, as well as the potential liability from a deemed disposal in terms of para 12 of sch 8 of the Act, is a dire result. Taxpayers ought to be mindful of this.

7.3.4 Summative statement

While it cannot be said absolutely that the receipt of an airdrop would always constitute a capital nature, it is asserted that in most cases they would be. In the case of the FLR airdrop, unless a taxpayer is observable as making it a habit of realising airdrops to sell at a profit, it is likely for the reasons stated above there would not be evidence of sufficient probative value to overthrow a taxpayer's claim that they acquired the tokens for the purposes of generating income, and with a capital intention.

With respect to the secondary research question, the principles and tests established by case law appear sufficient to deal with the question of capital or revenue nature such that an assessment thereof of is accessible to taxpayers. No extraordinary, or innovative, constructions are required.

7.4 *Airdrops, and the accrual-receipt principles*

7.4.1 *Preamble*

From the *Peoples Stores* and *Mooi* cases, it is quite clear the South African tax law position is accrual takes place when a taxpayer becomes unconditionally entitled to receive an amount, not when it becomes due and payable. It was also noted in chapter two, that a distinction between custodial and non-custodial XRP holders with respect to the airdrops must be made. The application of the law to each of these categories differs, and is considered below.

7.4.2 *Spark and custodial holders*

It is clear from the Documentation that those XRP holders who have indicated their participation in a timely manner, and in the prescribed form, accrue a right to receive an FLR distribution in accordance with the specified formula.[237] The first question to be answered is: when does a person accrue this right? The second is: when is this right unconditional? With reference to the debate in 3.4 above, an obligation could only arise at launch of the Mainnet. A practical construction to consider the accrual timeline is proposed below:

- The Mainnet is considered to have made a valid offer; 45 billion FLR are sent to a SMART contract, constituting this offer.
- The Flare State Connector ("the FSC"),[238] immediately thereafter, reads/writes XRP Ledger indices 60,155,580,[239] and 64,204,315,[240] and transmits to this SMART contract.
- At the point when the Mainnet incorporates the data sent by the FSC, acceptances are matched to offers, resulting in constructive consensus. This triggers the creation of a right to receive an FLR distribution peculiar to each address in terms of the published formula, which is discharged in terms of the schedule – see chapter 1.6.1, *supra*.

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[237] FN Whitepaper op cit 48 at definition 3.10.

[238] This is the protocol which manages validates the states of other distributed ledgers external to the Flare Network Mainnet. It acts in essence as a bridge to vet the correctness of information being used by other components of the infrastructure.

[239] The ledger index, determining a list of offerees, ie the Snapshot.

[240] The ledger index, determining a list of acceptances.

This process must be understood to take place for all intents and purposes in a cascading fashion within a few seconds.[241] Therefore, this constitutes the time at which the accrual arises. Furthermore, as the accrual does not occur with any apparent conditions, it may be so regarded at this time as having been unconditionally accrued for tax purposes.

While 15 per cent of the accrual is settled immediately, the remainder of the distribution only becomes due and payable over a period of months subsequent. This does not impact the accrual of the amount, as has been made clear in the case law.

This position applies to the FLR distribution only.

7.4.3 *Spark and non-custodial holders*

Analysis of accrual in the case of the FLR non-custodial distribution is more complex. In terms of the FN Whitepaper,[242]

> …the XRP Ledger snapshot will be taken at a point in the future when a sufficient number of <u>exchanges</u> have articulated to <u>their clients</u> whether <u>they will claim</u> the Spark token <u>on their behalf</u>. [Emphasis added].

The contention that PCEs act merely as a conduit for the transaction is dismissed as incorrect. This presumes that acceptances emanate from principals, which cannot occur as the necessary form of the acceptance requires access to an XRP ledger address to which exchange customers do not have access by design; silence is typically not indicative of an acceptance;[243] the exchanges take positive action to accept the offer, albeit for the benefit of their customers. Therefore, it is asserted the arrangement must be analysed within the law pertaining to *stipulatio alteri*.

In terms of the rules governing such contracts, the Mainnet ("*stipulans*") agree with a centralised exchange ("*promittens*") that the latter must offer a benefit, ie the FLR tokens, to the underlying XRP holder ("the beneficiary"). This requires one to examine the following issues:

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[241] The delay variable is based purely on the runtime inherent in the code required to execute the transactions, matched with the available compute power available. The intention, however, is that all transactions resolve simultaneously.

[242] FN Whitepaper op cit 48 at paragraph 3.3.2.

[243] *Price v Price* (696/89) [1990] ZASCA 87.

- What constitutes the offer by the *promittens* to beneficiary; and
- What constitutes a valid acceptance by the beneficiary?

It has been demonstrated no obligations in the first instance are created until the launch of the Mainnet.

If in practice the process were to be as transparent as the *promittens* communicating in writing to the beneficiary that in terms of an undertaking made to the *stipulans*, acceptance of an airdrop-offer is pending, to which the offeree need simply respond 'yes' or 'no', the tax consequences and timeline would be substantially more transparent. However, what has been observed of this process domestically, insofar as SGB is concerned (the Mainnet having not yet launched), is that there is no written communication of an offer, or verbal exchange; the airdrop tokens simply appear in the beneficiary's exchange interface as accessible.

This is indicative of an underlying assumption that no objective rationale person would refuse a pure donation. While this may rest on sound logic in Economics, as a matter of law a donation is required to be accepted by the donee. Nevertheless, given the inherent nature of the subject matter, this is the paradigm under which PCEs would likely approach airdrops in general. Adapting to this process, it is suggested that the offer to the beneficiary by the *promittens* is constituted by making the crypto assets available for dealing,[244] which is a question of fact. The more challenging question is what would constitute an acceptance of the offer, as this is the act triggering accrual for tax purposes.

In the matter of *Price v Price*,[245] Kumleben JA is quoted as having cited as an authority Willston on Contracts, specifically,

> When an offer has been rejected it ceases to exist….does not reject the offer… mere silence of the offeree, although inaction may be consistent with an intention not to accept.

This is consonant with the general principles of contract law, which necessarily require that an acceptance be a conscious act, performed with intent. Only in the most exceptional circumstances may the offeror

[244] This may be the form of any of the following capacities: trading, investing, staking or even withdrawal to a custodial wallet, or other exchange.

[245] *Price* supra note *243.*

necessarily infer from silence that the offeree binds themselves. Furthermore, the Legislature in the form of the Consumer Protection Act 68 of 2008 has made so-called 'negative option marketing' unlawful,[246] which further indicates this construction best approximates prevailing *bonos mores*.[247] Therefore, it is argued acceptance can only be constituted by evidence of some deliberate, positive act.

Notwithstanding the exclusion of inaction as a basis, this does not give the offeree licence to keep the offer in abeyance indefinitely. This observation is significant when considering a taxpayer playing the perilous game of intentionally deferring acceptance in order to minimise the accrual of a revenue amount (in a downward-trending market) to form part of their taxable income for calculation of normal tax,[248] or to maximise the accrual of a capital amount (in an upward-trending market) to form the base cost of the asset, thereby minimising a contingent liability for capital gains tax without any adverse effects under normal tax. This may issue cause to consider the possible application of the anti-avoidance rules. In summarily dealing with this concern, it is asserted that a taxpayer may rely on the words of Lord Tomlin in *Inland Revenue Commissioners v. Duke of Westminster* that a taxpayer has the right to order his affairs to minimise taxation, albeit it lawful – there is nothing apparently unlawful in accepting an offer only when it suits one to do so, before which there cannot be any question of tax.[249] Furthermore, the rules governing the doctrine of substance over form as per the ruling in *Zandberg v van Zyl* do seemingly not apply either – there is no apparent attempt to disguise the true nature of the agreement, being about to be.[250] However, it is without the general scope of this research to consider this question in greater detail.

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246 Consumer Protection Act, Act 68 of 2008.

247 As discussed in chapter 7.2, the airdrop may be argued to come with certain implied obligations, to which an offeree would need to bind themselves as a necessary requirement for accepting the benefit.

248 This may seem counter-intuitive, however it envisions a scenario where a taxpayer's acquisition of the asset must necessarily be regarded as operating a business in carrying out a scheme of profit making, but his holding of the asset long term is characterised by a capital intention.

249 *Inland Revenue Commissioners v. Duke of Westminster* [1936] A.C. 1.

250 *Zandberg v van Zyl* (1910 (AD) 302).

In order to establish the bounds of the taxpayer's discretion, the following is considered. It could be argued, and not unpersuasively, that as the *promittens* is bound to make an offer (to the beneficiary) on the exact same terms as the offer made to it by the *stipulans,* that any provision in the agreement between those parties as to the time in which an offer must be accepted should, apply, *mutatis mutandis*. In the alternative where no specific time is referred to in the offer, the legal position as noted in *Motor Vehicle Accidents Fund v Thabede* should be highly regarded,[251]

> As far as I am aware, the only implied or tacit term which the law reads into an offer is that it must be accepted within a reasonable time, failing which it will lapse.'[252]

The reasonableness test is one which is often found in law. Generally speaking, this test is objective, and as such should take a dispassionate view of the facts. In proposing a method for general use in the case of airdrops, it is noted that Baur and Dimpfl regard BTC, and by extension crypto assets, to be highly volatile.[253] Therefore, reasonableness ought to be contrived on the basis that time is of the essence.

Layton-McCann argues that while the Constitutional Court and SCA have not yet concretely infused the tenets of good faith and Ubuntu into the general application of contract law, the history of its decisions demonstrate an inclination to do so.[254] As these ideals are not objectionable, and specifically that the *promittens* in the case of these airdrops does not stand to gain anything from the arrangement (other than by misconduct), it is reasonable to presume they would not deliberately act against the interests of the beneficiary for whom the contract was originally made; their conduct, as such, should approximate a reasonable time.

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[251] *Motor Vehicle Accidents Fund v Thabede* 1994 (2) SA 610 (N) at 614C.
[252] Cf *Markram v Scholtz and another* (2000) 4 All SA 452 (NC).
[253] Dirk G. Baur & Thomas Dimpfl 'The volatility of Bitcoin and its role as a medium of exchange and a store of value.' (2021) 61 *Empirical Economics* 2663–2683.
[254] Keryn Layton-McCann, *The Role of Good Faith and Fairness in Contract Law: Where Do We Stand in South Africa, and What Can Be Learnt from Other Jurisdictions?* (2017) University of Cape Town.

On account of this, it is submitted as practical in such cases that a reasonable time for acceptance be equivalent to the time elapsed between the *stipulans'* performance and the *promittens'* performance, ie an offer to the beneficiary. This is in keeping with the 'mirror image' principle.

These deliberations only establish a means to identify beyond which point accrual of the right is no longer possible. Now it becomes necessary to establish within that time limit, what should constitute an acceptance by the offeree in the prescribed form. It is asserted this should be the offeree interacting with the asset in terms of any of the facilities used to constitute the offer, having been made. Alternatively, any appropriate written communication to the centralised exchange noting acceptance of the offer, albeit a more traditional approach, would nonetheless be adequate. Electronically communicated acceptances in terms of the ECT Act would specifically be subject to the Reception Theory. Accrual, therefore, takes place at the time of the acceptance is able to be retrieved, and is likewise unconditional. This, however, cannot be determined in general, as timing of acceptance would vary among cases.

The contingency of taxpayers not taking positive action, subsequently leading to a lapse of the *promittens'* offer, and final discharge of their obligation to the *stipulans*, warrants explanation. Moreover, it is submitted the position would be similar to the position of the SGB distribution to non-custodial holders, discussed below.

7.4.4 *Songbird – a community in discord*

The announcement of the Songbird network took all market participants completely by surprise. In the case of custodial XRP holders, SGB tokens were summarily sent to the recipients on the 16th September 2021. There was no documentation or information leading up to this event, other than a single announcement. Similarly, centralised exchanges did not give any accord that they would distribute the SGB they received to underlying XRP holders, and are under no obligation.

This was noted publically by FlareCo.[255] Therefore, it is the exchange which becomes the taxpayer's putative counterparty.

Most exchanges have made the SGB distribution available for dealing. Nevertheless, there is no immediate accrual as there exists no *iusta causa* for the taxpayer having it in his possession other than on the basis that it is subject matter of a debt obligation. Therefore, this event is best evaluated with reference to the case law around receipts.

In terms of the judgment in *CIR v Genn and Co (Pty) Ltd,*[256] receipts do not possess the quality of income in instances where immediately thereupon exists an obligation to repay. The SGB distribution received likely represents a constructive offer of pure donation. However, until the taxpayer accepts this offer, there is no receipt for tax purposes, as in the event of a failure of the offer it would be required to be repaid.

This offer must be subject to the reasonable time rule for acceptance, after which it lapses. However, there is very likely intent by the exchange that the taxpayer to receive it for their benefit. It is further doubtful that the receipt could be then construed as the proceeds of a theft to the extent it is kept in the possession of the recipient; there would be no *mens rea* to constitute such a crime, nor would any misrepresentations have been made.

To the extent that a taxpayer allows the offer to lapse through non-acceptance, the offeror's ownership ought to be regarded as lost *a derelicto*, see *Papas N.O. v Motsere Trading CC and Others,*[257] citing *Goldstein and Co (Pty) Ltd v Gerber.*[258] In terms of the judgment in *Reck v Mills and Another*,[259] a *res nullius* is capable of becoming another's property through their exercise of control over that asset. This implies the taxpayer would need to transact with the asset in some way as demonstrating control to constitute them acceding to ownership.

It is remarked that in the case of the Flare Network there is no apparent means by which it would be able to assert control over these assets

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[255] See note 27.
[256] *CIR v Genn and Co (Pty) Ltd (1955 AD) 20 SATC 113.*
[257] *Papas N.O. v Motsere Trading CC and Others* (46011/2012) [2014] ZAGPJHC 144
[258] *Goldstein and Co (Pty) Ltd v Gerber* 1979 (4) SA 930 (A)
[259] *Reck v Mills and Another* 1990 (1) SA 751 (A))

should it decide to move to regain ownership, in juxtaposition to a centralised exchange, which would be. While such an eventuality is unlikely, it does present a possible exploitive gap in the law whereby taxpayers may require legislative support.

In summary, it would appear there cannot be an accrual, before there is a receipt; in the context of taxation there would need to be some controlling act of the taxpayer to evidence the asset has been received on their behalf for their benefit – either as an acceptance of a donation, or claiming ownership of a *res derelictae*.

7.4.5 Summative Statement

It is proposed that law regarding accrual is relatively straight forward, and its application in cases of custodial holders operates clearly. It is supposed that non-custodial holding is more popular as most persons fear human error in dealing with software-based technology; operating via an exchange has the comfort of familiarity with banking online. Ironically, it is in the case of non-custodial holders where the delay in the timing of accrual results in an unsatisfactory contingency; it is legally technical in nature, and may unnecessarily obstruct due compliance through a lack of transparency.

A possible solution would be to legislate that exchanges are required to communicate airdrop offers electronically in advance, however with South African only having three of the dozens of global exchanges, this would likely be ineffective.

An alternative is to override the law of general application through legislation to provide that silence constitutes acceptance for such cases. This, however, may be prejudicial to the extent a taxpayer needs to fund a tax liability arising at one time out of the proceeds of a subsequent sale where the market has trended downwards.

The only remedy hereto would be for the Treasury to tax based on units held, rather than value, which may intermesh well with the Finance Minister's proposals for a South African sovereign wealth fund.[260] As discussed in chapter 6, there are advantages to such an approach.

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[260] 2020 Budget Speech

There is no immediate practical solution, moreover it is an area of concern for the effective operation of the tax system for individuals. Additionally, consideration should be given as to how non-custodial holders could be protected against exchanges acting legally, yet arguably immorally by withholding airdrops under claim they are their own by virtue of offers, having lapsed.

7.5 *Valuation methods*

It has been demonstrated that non-monetary receipts nevertheless qualify as an amount, moreover that is not necessary that such receipts be able to be realised into cash. Given that crypto assets are specifically defined as financial instruments, a valuation methodology would need to be applied to determine what amount of gross income they represent.

As was discussed above, where an asset is sought to be priced with reference to public trading data, it is not sufficient simply to select a price somewhere within the daily range; the dictum in *Lace Proprietary Mines* stands to confirm that price is not always a fair reflection of value when viewed in a narrow timeframe.[261] Therefore, a care must be had to specific market dynamics, and be so reflected in the methodology. It is submitted the following factors ought to be considered.

Volatility: as was noted by Baur and Dimpfl,[262] the crypto asset markets are highly volatile, and thus there is a high degree of probability that price does not reflect value in a low timeframe. Nevertheless, each asset differs.

Market Age: it is well observed in crypto markets that when an instrument first becomes tradable, price ranges are characterised by massive swings to the upside as retail investors bid the price up in what is referred to as FOMO buying,[263] or alternatively massive selling pressure from pre-market speculators.[264] The latter is very possible in the case of airdrops,

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available at http://www.treasury.gov.za/documents/National%20Budget/2020/

[261] *Lace Proprietary Mines* supra note 173.

[262] Baur & Dimpfl op cit note 253.

[263] FOMO is the term used to refer to asset purchases driven strongly by emotion, especially when markets are characterised by an undue sense of euphoria. This can have the effect of driving up prices to unrealistic levels.

[264] An example of this would be wholesaler buyers who flood the market with supply, who are not concerned with volume as their return is built into the wholesaler discounted price.

as some participants adopt the ‘free cash’ approach. Therefore, the very first days of trading are very poor indicators of value with reference to price.

Volume: when an at-market sell order is entered such that there is insufficient buy volume to absorb the order and maintain a relatively stable price, it would be necessary to consider what a wholesale buyer would bid.[265]

In practice, SARS would discharge their onus in terms of the *Butcher Bros* case by referencing the market price on the day,[266] however a taxpayer may use the principles of *Lace Proprietary Mines* to challenge such a draconian approach. The following method is proposed, and submitted as taking into account these factors.

The beta for a basket of blue-chip J.S.E. listed companies is determined with reference to the All-share Index to approximate what constitutes a stable traditional market (“Standard Beta”).[267] This may be updated quarterly, bi-annually, etc. Crypto assets with a beta less than Standard Beta may be priced at the value indicated by closing price on the day of receipt, or accrual; crypto assets with a beta in excess are priced with reference to the average of closing market prices over a specified time period, increasing step-wise with the calculated difference between its beta and the Standard Beta, ie <10 per cent above, reckon over a week, <20 per cent above, reckon over a month, etc. Provided: where the receipt, or accrual, represents a unit volume in excess of some set percentage, the valuation price should be adjusted downwards to reflect a reasonable wholesale discount to retail price, provided further: where the market being referenced has less than one month’s worth of trading data, the average closing market price in the first month shall be rebuttably presumed to approximate the value of the receipt, or accrual when it was so received, or accrued.

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265 This was specifically addressed in *Lace Proprietary Mines* supra note 173.

266 *Butcher Bros* supra note 167.

267 Beta is a financial metric used to reflect the movement of a stock relative to benchmark, typically an index. It is calculated by multiplying the quotient of standard deviations of the base asset with the index with the correlation coefficient of returns.

The valuation of unlisted crypto assets is a more complex question. The directive, as enshrined in *ITC 391,*[268] ought to be considered only appropriate for shares as the foundational assumption is that a company does not operate in insolvency, from which one may infer the net assets attributable to each share is at least their issue price. This is not so in the case of crypto assets. Furthermore, the effects of s 35(2) of the Companies Act, and what may be determined from them as representative of public policy, is once again noted.

In terms of s 95(2) of the TAA, where SARS is required to make an estimate based on inadequate information provided by the taxpayer, it is required to do so, '*based on information readily available to it.*' This was upheld in *Nondabula v CSARS and another.*[269] In instances where taxpayers receive crypto assets which are not listed, it cannot be expected of taxpayers to deploy the equivalent resources of what the State has at its disposal to determine a basis for reporting their income tax. It is submitted that SARS would need to content itself that the only ascertainable money value is zero, and defer its taxing rights to when the asset is disposed of, attracting either normal tax or capital gains tax.

An alternative recommendation is for a provision to be enacted, inspired by s 24M of the Act. Such an amendment would provide that receipts and accruals of crypto assets, acquired under lucrative title and which cannot be simultaneously quantified, be deemed to accrue in the year in which they become quantifiable. This would typically be when they become listed on regulated exchange. Such a treatment may balance the interests of capital intention taxpayers having a base cost for capital gains tax purposes, and the State in not having to defer its tax rights on revenue receipts until realisation.

7.6 *Summative statement*

This chapter has examined the fundamental application of the gross income definition within the context of airdrops. While it is not possible

[268] *ITC 391* supra note 182.
[269] *Nondabula v CSARS and another* [2017] ZAECMHC 21.

to analyse scenarios with too many variables, some possible arguments with respect to the nature of airdrops have been proposed.

Broadly speaking, it can be observed that certain peculiarities with respect to how other areas of law interact with the Act have the result of adding a new dimension, and level of complexity. The tax effects under the current legal framework may be constructed to bring airdrops into the ambit of the gross income definition, however analysis necessarily involves consideration of significantly technical areas of law, besides tax law.

8 CHAPTER VIII: CONCLUSION

In pursuit of the secondary research objective three public guidance notes were considered. The IRS' approach is overly draconian, and is dissonant with the South African tax principle of subjective intention; technologically, the guidance is non-responsive to the case studies. The HMRC guidance does explicitly mention taxation of airdrops, however it only states a definitive position in the trite circumstance of *quid pro quo* – this is uninformative. Similarly, SARS' guidance only opines on crypto asset receipts as compensation being taxable. The tax authority has failed to create tax certainty by providing readily available guidelines to the public in discrete terms, unifying all aspects of the law into its position on airdrops.

When applying tax legislation, case law and the opinions of scholars, as tempered by the attendant impact of the areas of Contract law and Law of Persons, it was found that there is a well enough developed legal framework to analyse the tax treatments in South Africa. However, this was not without necessarily highlighting significant complexities.

Without a discrete contractual document, analysis of the apparent obligations which arise demonstrated distributed network schemes' inherent uncertainty within the framework of contract law. Avoidance of these problems requires a novel approach to legal personality, moreover there is no clarity from tax authorities whether such a position is considered valid in law, or even acceptable in practice. Further research of the *universitas* in this regard may be warranted.

The fundamental inquiry of capital/revenue nature was shown to depend on the subjective intention of the taxpayer, assuming no contradictory objective facts. By virtue of the case studies, distributed networks, looking to leverage Metcalfe's Law, were examined on the basis of an airdrop giving rise to the less common natural obligation. While it is an unresolved question whether inflationary value erosion enforced by an algorithm satisfies the element of enforceability required for civil obligations (ordinarily the task of the courts), the tax effect of a natural obligation is equivalent where the taxpayer acts as a network intended. This leads to the dichotomy of such a taxpayer, notwithstanding a genuine capital intention, falling foul of a *quid pro quo* assertion, as opposed to one with a genuine revenue intention escaping taxation for want of their actions forming evidence against an objectively false claim of capital intention. This seemingly offends the neutrality principle of a good tax system.

Further, airdrops, conditional on a temporal holding of an asset, introduces a potential facility to disguise revenue nature as capital. In terms of precedents set by the judiciary, an option contract fixes a taxpayer's intention. In instances where airdropped assets are able to be used to generate income, under certain circumstances discussed in the context of 'opportunists' the taxpayer's alleged *ipse dixit* for acquiring the option (capital intent) shields them from the tax effects of what would be a genuine change of intention by subsequent liquidation in pursuit of profit.

In the case of long-term investors in the reference asset, the likely actions of a taxpayer would not be of such a degree as to transcend fortuity into the realm of profits 'deliberately sought and worked for'. Nevertheless, in the interests of certainty the tax authority should mete out guidance on whether a deliberate and temporary increase in holdings amounts to a change of intention with respect to pre-existent holdings in order that taxpayers may protect themselves from adverse consequences with respect to assets held in good faith as capital investments.

The receipt / accrual principles are held to be well established. However, the binary practice of the crypto asset space with respect to custody introduced significant variation in outcomes. In cases of custodial holding, the application of these principles plays out with relative congruity to a general case, however the non-custodial holding introduced the intricacy associated with *stipulatio alteri*.

Where an intermediary exchange purports to honour their contractual obligation to offer the benefit of airdrop by simply making the asset available, the tenets of contract law dictate that assent is only by deliberative positive action – a receipt under lucrative title has been demonstrated as still being subject to consensus requirements. Taxpayers, who act too late or not at all, are at risk of their offer lapsing, by which they may inadvertently disadvantage themselves for want of sufficient technical knowledge of the law; this would lay way for exchanges to attain valuable assets which were never meant for them, but nevertheless over which they may assert a defensible legal claim.

Inversely, the interplay of taxation and *stipulatio alteri* give rise to the possibility for gamesmanship in instances where an offer lapses, and assets become *res derilictae*. In such cases, taxpayers may accede to ownership through the exercise of control but at a time where the fair value to be attached to the receipt / accrual plays in concert with their intention of yielding an undue advantage at the expense of the State. A unified approach is advisable which maintains tax neutrality between different custodial styles, ensures certainty in tax outcomes, and balances the interest of the State and the public fairly.

The issue of valuation was considered. It was highlighted that the court has held that a publicly quoted price is not necessarily a good indicator or proxy for value. This is particularly relevant to crypto assets given their proclivity for price volatility. Alternatively, it may be that an accrual is necessarily recorded at a value of zero for want of any reliable price at the time. This may, however, unduly prejudice the Treasury's revenue collection endeavours.

Having regard to the above summary, the final contention is that the null hypothesis that taxation aligns with the principles of a good tax system is rejected. In discussing the various elements of the gross income definition, it has been made clear that not only tax principles (themselves complex at times) are in play, but also obtuse areas of contract law. It is these in particular which vary, obfuscate or otherwise complicate the determination by an individual taxpayer, possessing no specialist knowledge, of their tax obligations in good faith under the law without resorting to professional advice.

Having due regard hereto, the following recommendations are made:

- Offeror identity: Treasury may recommend that DAOs be granted legal personality for tax purposes in a similar vain to trusts; all creation and accession to rights (and duties) occur with reference to the network, not the original promoter (creator). The DAO Act,[270] legislated in Wyoming, may serve as a reference point for such draft legislation domestically.
- The custody issue: uniformity of tax outcomes should be prioritised, and laws fashioned in such a way as to protect and benefit the majority. Treasury may recommend that provisions be enacted to suspend the law of general application with respect to *stipulatio alteri*, and to regulate

[270] DAO Act supra note 57

PCEs in requiring them to implement formal offer and acceptance procedures to protect ownership rights within a time set by statute. While such rules may only extend as far as South African exchanges, it has been made clear by the Reserve Bank that transfer of digital assets purchased locally to offshore exchanges is not permitted as it falls foul of FinSurv reporting. Confining investor protections to local exchanges would reinforce capital export protections. Addendum A provides a suggested process, being that adopted by Nexo.

- Receipt versus accrual basis: it is conjectured that airdrops are likely to give rise to full accrual upfront with staggered settlement over time. The accrual basis of taxation may be a nuanced concept to average taxpayers, who would far more greatly appreciate the extent of their obligations when based on an actual asset receipt. While it was demonstrated that a tax on units of an asset, rather than its representative value, would render a taxpayer nominally indifferent over time, this may require state policy to hold crypto assets as part of the state's sovereign wealth fund. This has its own advantages besides taxpayer indifference. Alternatively, in the case of natural persons in the very least it is suggested Treasury recommend to deem any accrual of an airdrop, which would remain outstanding for a suitably lengthily period of time, to be deemed to have been accrued at the time of actual receipt. This would alleviate a great amount of uncertainty as to when a tax is due, as well as give due regard to a taxpayer's ability to pay, ie not requiring them to finance a tax liability in advance but fund it directly out of unit sales at a roughly equivalent realisation price as the value upon which the tax base is calculated.
- Valuation: nascent markets typically have low liquidity. This manifests itself by observations of acute volatility, and inefficient market pricing on account of information asymmetry. Given the courts have intimated that the assessment of tax should be based on the value of the asset, merely ascribing a spot price in a highly volatile market may qualify the tax base on an unrealistic, if not unfair, valuation. It has been pronounced as a principle of tax law that a value being of significant difficulty to determine

should not irretrievably discourage its pursuit; doing so would sacrifice equity for facility. Inversely, submitting to a nil valuation is defeatist, and may prejudice taxpayers and the fiscus, alike. Treasury may recommend that a provision be appended to s 24M to give effect to where a crypto asset is received or accrued for a value, which is unquantifiable (using objective certainty as a standard), and to the extent that a taxpayer does not dispose of that asset, the receipt or accrual is deemed to be suspended until such time as a value can be reliably determined. This would necessarily need to be constructed in light of the above recommendation, whereby the accrual is deemed to be at the time of incremental receipt. Such a practice may balance the interests of the state and taxpayer, both advantaged by reliable information, and to an extent encourage long term capital investment in crypto assets in lieu of almost immediate liquidation prior to any meaningful value growth.

As a final remark, it is irrefutable that the digital asset space has grown significantly in recent years, and is set to become a foundational part of the global financial system, and cross border trade. Principally attributable to the trust-less nature of the distributed ledger technology, the characteristic of pseudo-anonymity in dealings between economic agents presents certain challenges to the effectiveness of the Republic's bilateral treaty network. The only requirement for economic activity is access to the internet, which broadens the scope to include even the most obscure of jurisdictions. While this research only concerns itself with domestic tax implications, international tax is suggested as the most logical area to which this research should progress.

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Addendum A

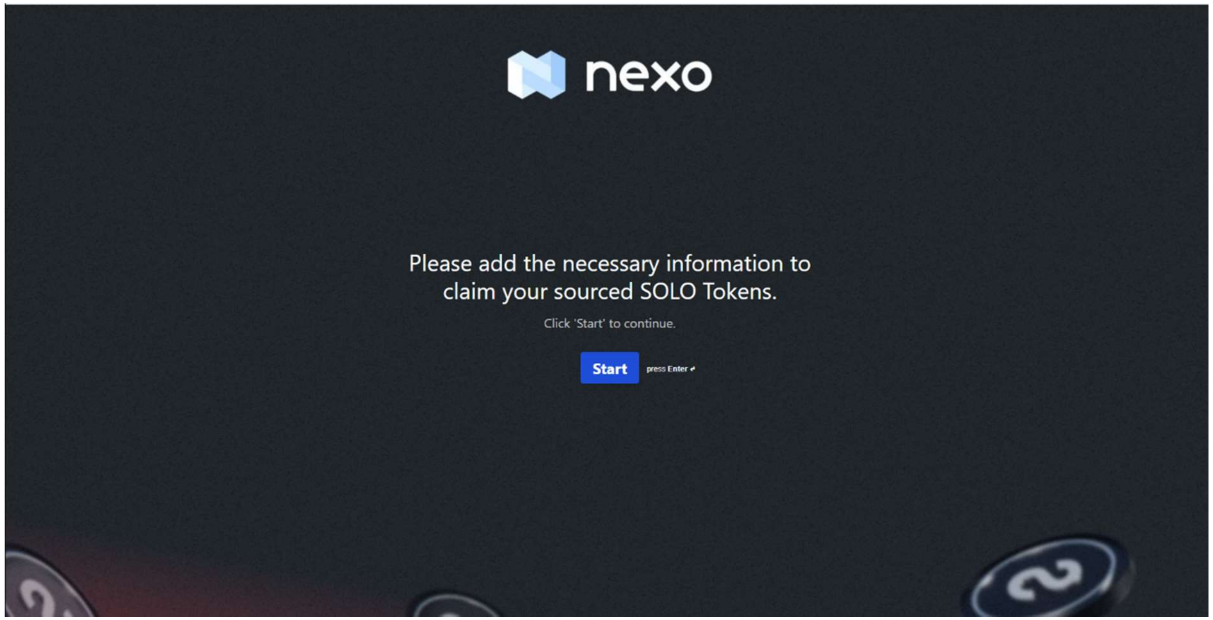
Similar to the Spark token, holders of XRP at a stipulated date became entitled to receive a distribution Sologenic tokens ("SOLO"). The Swiss-based crypto bank, Nexo, did not indicate it would support distribution of this airdrop on behalf of its depositors.

Over a 24-hour observation period, Nexo experienced technical difficulties in processing XRP withdrawals. This had the inevitable consequence that XRP holders were not able to move their assets into self-custody for airdrop participation. Nexo, however, announced that it would facilitate on a best efforts basis distribution of the SOLO tokens based on its internal computations.

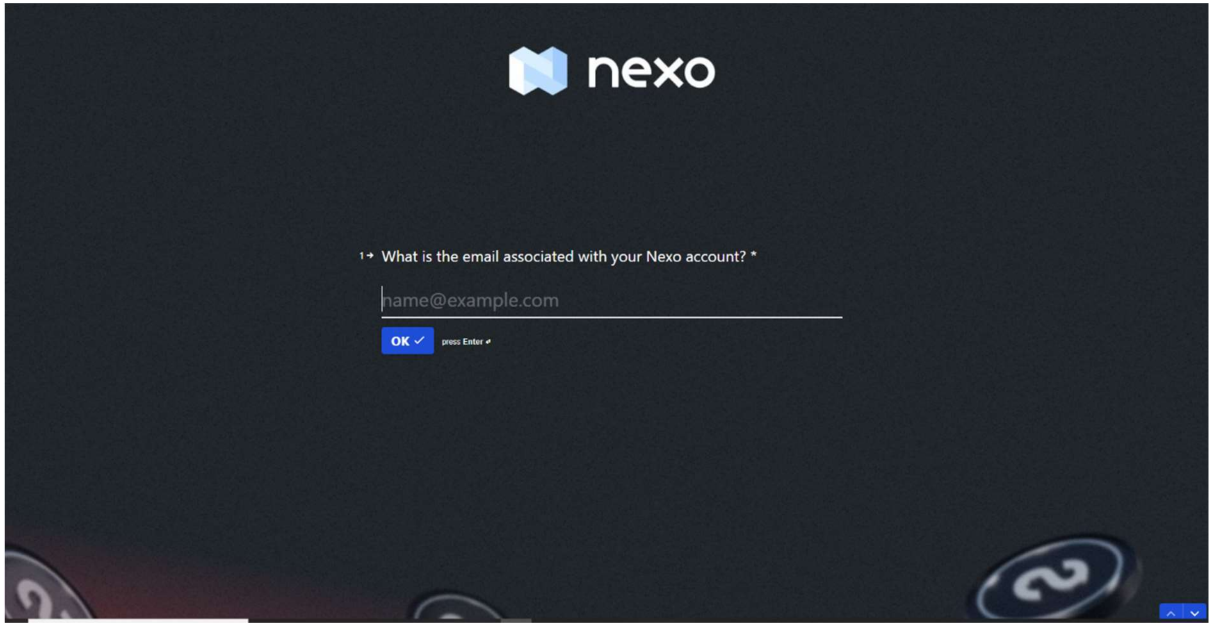
Pursuant to this, they introduced a process whereby XRP holders received a communication directing them complete a process whereby they accepted the airdropped SOLO tokens.[1] It is suggested this is kind of process which ought to be made mandatory under regulations to ensure uniformity in the application of the principles surrounding *stipulatio alteri*. Step four is particularly important as it would amount to acceptance of a contractual offer.

[1] The images included herein represent transactional records to which this author asserts a right.

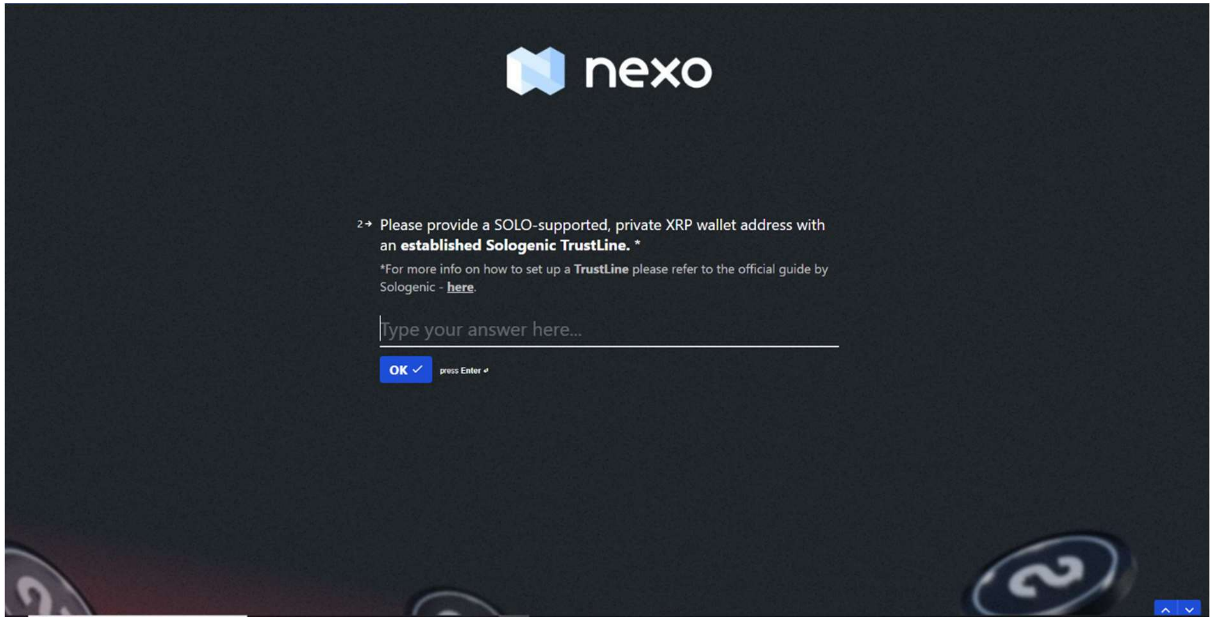
Step one:


nexo
Please add the necessary information to claim your sourced SOLO Tokens.
Click 'Start' to continue.
Start
press Enter

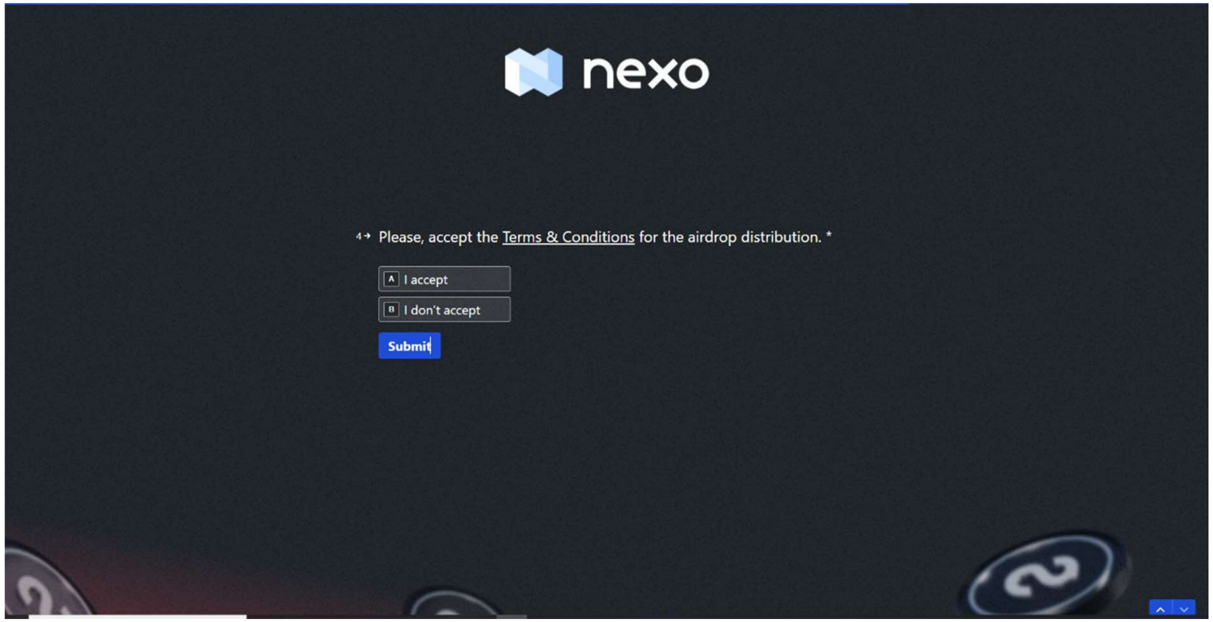
Step two:


nexo
1→ What is the email associated with your Nexo account? *
name@example.com
OK
press Enter

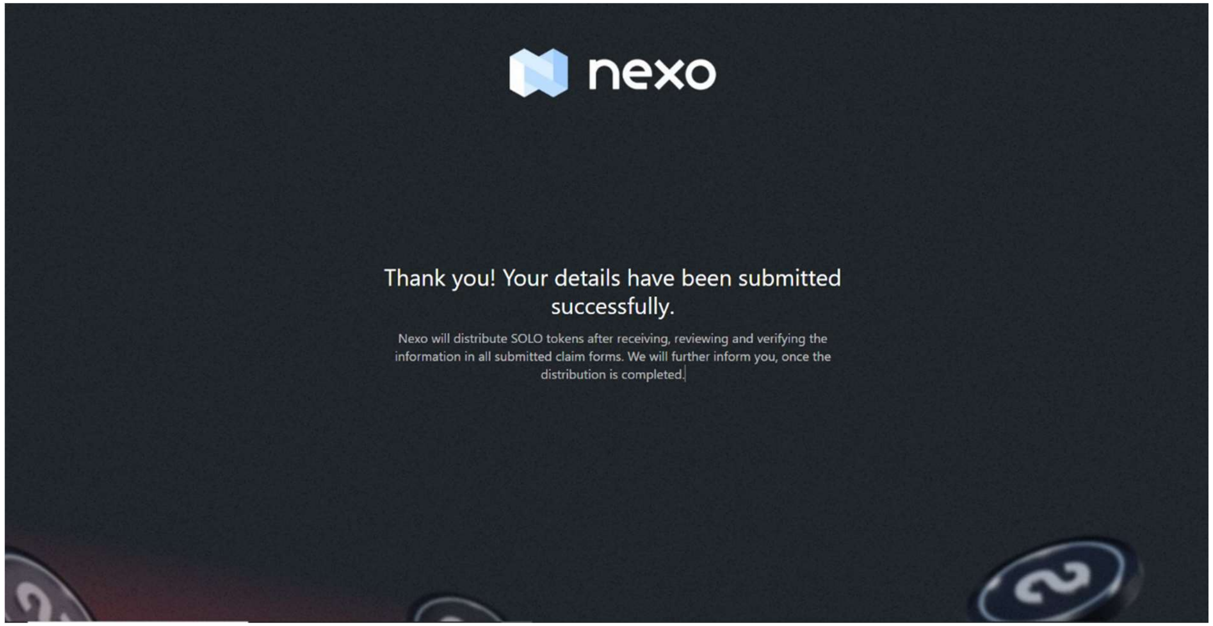
Step three:


nexo
2→ Please provide a SOLO-supported, private XRP wallet address with an **established Sologenic TrustLine.** *
*For more info on how to set up a **TrustLine** please refer to the official guide by Sologenic - **here**.
Type your answer here...
OK ✓
press Enter ↵

Step four:


nexo
4→ Please, accept the Terms & Conditions for the airdrop distribution. *
A I accept
B I don't accept
Submit

Step five:



End.

Addendum B

The following addendum comprises the following elements for each selected asset:
> Financial model
> Regression of price data as a trendline
> Source data

Statistics	Value
Accrual in Units	1 680.00
Accrual Date	01-Sep-20
Accrual Price	$ 6.29
Tax Rate	35.00%
Investment Rate	6.00%

Period	01-Sep-20	30-Sep-20	31-Oct-20	30-Nov-20	31-Dec-20	31-Jan-21	28-Feb-21
Monthly Average Price	$ 6.29	$ 4.81	$ 4.18	$ 4.74	$ 5.41	$ 13.62	$ 28.00
<u>Receipts-based Asset Model (Units)</u>							
Opening Balance	-	273.00	332.38	391.98	451.73	511.73	571.92
Settlement of Unit Accrual	420.00	90.00	90.00	90.00	90.00	90.00	90.00
Investment Return - *in specie*	-	1.35	1.69	1.93	2.30	2.61	2.63
Tax Transactions	- 147.00	- 31.97	- 32.09	- 32.18	- 32.31	- 32.41	- 32.42
Closing Balance	273.00	332.38	391.98	451.73	511.73	571.92	632.13
Closing Market Value	**$ 1 717.17**	**$ 1 597.73**	**$ 1 638.59**	**$ 2 139.25**	**$ 2 770.43**	**$ 7 788.86**	**$ 17 697.52**
<u>Tax Collection (Nominal USD)</u>							
Opportunity Cost of Treatment	$ -3 698.52	$ -	$ -	$ -	$ -	$ -	$ -
Revenue Collected	$ 924.63	$ 153.69	$ 134.16	$ 152.38	$ 174.90	$ 441.42	$ 907.68
Net Revenue	**$ -2 773.89**	**$ 153.69**	**$ 134.16**	**$ 152.38**	**$ 174.90**	**$ 441.42**	**$ 907.68**

IRR

16%

Total Nominal Revenue Collected:

$ 10 635.43

	01-Sep-20	30-Sep-20	31-Oct-20	30-Nov-20	31-Dec-20	31-Jan-21	28-Feb-21
<u>Accrual-based Asset Model (Units)</u>							
Opening Balance	-	- 168.00	- 78.54	11.20	101.24	191.57	282.21
Settlement of Unit Accrual	420.00	90.00	90.00	90.00	90.00	90.00	90.00
Investment Return - *in specie*	-	- 0.83	- 0.40	0.06	0.52	0.98	1.30
Tax Transactions	- 588.00	0.29	0.14	- 0.02	- 0.18	- 0.34	- 0.45
Closing Balance	- 168.00	- 78.54	11.20	101.24	191.57	282.21	373.05
Closing Market Value	$ -1 056.72	$ -377.53	$ 46.83	$ 479.43	$ 1 037.15	$ 3 843.30	$ 10 444.11
<u>Tax Collection (Nominal USD)</u>							
Opportunity Cost of Treatment	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Revenue Collected	$ 3 698.52	$ -1.39	$ -0.59	$ 0.09	$ 0.98	$ 4.65	$ 12.73
Net Revenue	**$ 3 698.52**	**$ -1.39**	**$ -0.59**	**$ 0.09**	**$ 0.98**	**$ 4.65**	**$ 12.73**

Total Nominal Revenue Collected:

$ 3 999.11

Period	31-Mar-21	30-Apr-21	31-May-21	30-Jun-21	31-Jul-21	31-Aug-21	30-Sep-21	31-Oct-21
Monthly Average Price	$ 35.21	$ 38.43	$ 32.53	$ 20.40	$ 14.35	$ 23.43	$ 31.55	$ 38.99
Receipts-based Asset Model (Units)								
Opening Balance	632.13	692.73	753.45	814.44	875.56	936.96	998.56	1 060.26
Settlement of Unit Accrual	90.00	90.00	90.00	90.00	90.00	90.00	90.00	90.00
Investment Return - *in specie*	3.22	3.42	3.84	4.02	4.46	4.77	4.92	5.40
Tax Transactions	- 32.63	- 32.70	- 32.84	- 32.91	- 33.06	- 33.17	- 33.22	- 33.39
Closing Balance	692.73	753.45	814.44	875.56	936.96	998.56	1 060.26	1 122.27
Closing Market Value	**$ 24 393.66**	**$ 28 954.80**	**$ 26 490.21**	**$ 17 860.46**	**$ 13 442.59**	**$ 23 393.02**	**$ 33 454.03**	**$ 43 757.75**
Tax Collection (Nominal USD)								
Opportunity Cost of Treatment	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Revenue Collected	$ 1 148.94	$ 1 256.48	$ 1 068.26	$ 671.24	$ 474.34	$ 777.09	$ 1 048.29	$ 1 301.93
Net Revenue	**$ 1 148.94**	**$ 1 256.48**	**$ 1 068.26**	**$ 671.24**	**$ 474.34**	**$ 777.09**	**$ 1 048.29**	**$ 1 301.93**

IRR

16%

Total Nominal Revenue Collected:

$ 10 635.43

Accrual-based Asset Model (Units)	31-Mar-21	30-Apr-21	31-May-21	30-Jun-21	31-Jul-21	31-Aug-21	30-Sep-21	31-Oct-21
Opening Balance	373.05	464.29	555.78	647.62	739.69	832.14	924.90	1 017.86
Settlement of Unit Accrual	90.00	90.00	90.00	90.00	90.00	90.00	90.00	90.00
Investment Return - *in specie*	1.90	2.29	2.83	3.19	3.77	4.24	4.56	5.19
Tax Transactions	- 0.67	- 0.80	- 0.99	- 1.12	- 1.32	- 1.48	- 1.60	- 1.82
Closing Balance	464.29	555.78	647.62	739.69	832.14	924.90	1 017.86	1 111.23
Closing Market Value	$ 16 349.35	$ 21 358.26	$ 21 064.03	$ 15 088.98	$ 11 938.83	$ 21 667.39	$ 32 116.30	$ 43 327.41
Tax Collection (Nominal USD)								
Opportunity Cost of Treatment	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Revenue Collected	$ 23.43	$ 30.80	$ 32.24	$ 22.80	$ 18.93	$ 34.77	$ 50.37	$ 70.78
Net Revenue	**$ 23.43**	**$ 30.80**	**$ 32.24**	**$ 22.80**	**$ 18.93**	**$ 34.77**	**$ 50.37**	**$ 70.78**

Total Nominal Revenue Collected:

$ 3 999.11

Price over Time (Days)
$ 60.00
$ 50.00
$ 40.00
$ 30.00
$ 20.00
$ 10.00
$-
Spot Price (Close)
18-Jun-20
26-Sep-20
04-Jan-21
14-Apr-21
23-Jul-21
31-Oct-21
08-Feb-22
Date Continuum
y = 0.079x - 3478.5
R² = 0.5469
Market Price (Close)
Linear (Market Price (Close))

Date		Market Price (Close)		Open		High		Low
27-Nov-21	$	35.19	$	34.55	$	35.93	$	34.49
26-Nov-21	$	34.39	$	39.47	$	39.65	$	33.99
25-Nov-21	$	38.46	$	38.31	$	40.96	$	38.08
24-Nov-21	$	39.37	$	40.79	$	40.96	$	38.12
23-Nov-21	$	40.79	$	39.50	$	41.45	$	38.63
22-Nov-21	$	39.45	$	42.01	$	42.14	$	38.85
21-Nov-21	$	42.01	$	42.11	$	43.60	$	40.71
20-Nov-21	$	42.06	$	41.26	$	42.08	$	39.97
19-Nov-21	$	41.26	$	39.00	$	42.30	$	38.46
18-Nov-21	$	39.05	$	42.73	$	43.29	$	37.70
17-Nov-21	$	42.71	$	40.87	$	42.71	$	39.03
16-Nov-21	$	40.90	$	44.84	$	44.84	$	38.73
15-Nov-21	$	44.69	$	46.40	$	47.42	$	44.64
14-Nov-21	$	46.40	$	47.14	$	47.80	$	45.07
13-Nov-21	$	47.13	$	45.91	$	47.52	$	44.93
12-Nov-21	$	45.88	$	47.57	$	47.76	$	44.07
11-Nov-21	$	47.65	$	46.86	$	49.46	$	45.65
10-Nov-21	$	46.87	$	50.76	$	52.04	$	42.76
09-Nov-21	$	50.78	$	53.38	$	53.42	$	50.61
08-Nov-21	$	53.35	$	52.28	$	53.86	$	51.78
07-Nov-21	$	52.28	$	52.08	$	53.55	$	51.42
06-Nov-21	$	52.01	$	51.87	$	52.44	$	49.09
05-Nov-21	$	51.89	$	53.88	$	53.95	$	50.66
04-Nov-21	$	53.88	$	53.34	$	55.00	$	52.25
03-Nov-21	$	53.44	$	51.63	$	54.55	$	49.22
02-Nov-21	$	51.63	$	50.07	$	53.25	$	48.06
01-Nov-21	$	49.98	$	42.74	$	51.47	$	41.81
31-Oct-21	$	42.74	$	42.75	$	43.36	$	41.13
30-Oct-21	$	42.75	$	44.08	$	44.28	$	42.26
29-Oct-21	$	44.07	$	41.87	$	44.32	$	41.67
28-Oct-21	$	41.86	$	40.38	$	43.11	$	39.98
27-Oct-21	$	40.41	$	44.95	$	45.77	$	39.87
26-Oct-21	$	44.88	$	44.51	$	46.02	$	43.45
25-Oct-21	$	44.53	$	42.33	$	44.78	$	42.15
24-Oct-21	$	42.39	$	44.03	$	44.20	$	41.35
23-Oct-21	$	44.05	$	43.48	$	44.76	$	43.10
22-Oct-21	$	43.45	$	42.85	$	46.31	$	42.74
21-Oct-21	$	42.85	$	44.40	$	45.50	$	42.01
20-Oct-21	$	44.35	$	41.36	$	45.19	$	41.10
19-Oct-21	$	41.38	$	41.18	$	41.57	$	40.11
18-Oct-21	$	41.18	$	42.10	$	43.22	$	40.29
17-Oct-21	$	42.07	$	41.74	$	42.86	$	39.84
16-Oct-21	$	41.76	$	43.26	$	44.68	$	41.32
15-Oct-21	$	43.16	$	40.75	$	44.07	$	39.52
14-Oct-21	$	40.76	$	41.67	$	42.43	$	39.49
13-Oct-21	$	41.62	$	35.17	$	43.10	$	33.80
12-Oct-21	$	35.16	$	34.15	$	35.41	$	32.12
11-Oct-21	$	34.18	$	34.48	$	36.08	$	33.30
10-Oct-21	$	34.47	$	36.31	$	37.42	$	34.25
09-Oct-21	$	36.33	$	33.31	$	36.90	$	33.03
08-Oct-21	$	33.37	$	33.97	$	34.48	$	33.17
07-Oct-21	$	33.97	$	32.23	$	35.31	$	31.02
06-Oct-21	$	32.29	$	31.40	$	33.02	$	29.19
05-Oct-21	$	31.43	$	31.12	$	32.13	$	30.64
04-Oct-21	$	31.04	$	32.11	$	32.11	$	30.09
03-Oct-21	$	32.11	$	32.04	$	32.68	$	31.34
02-Oct-21	$	32.12	$	31.94	$	33.38	$	31.57
01-Oct-21	$	31.97	$	28.62	$	32.31	$	28.53

Date	Market Price (Close)	Open	High	Low
30-Sep-21	$ 28.58	$ 27.30	$ 28.97	$ 27.16
29-Sep-21	$ 27.27	$ 26.36	$ 28.59	$ 26.13
28-Sep-21	$ 26.33	$ 27.75	$ 28.34	$ 26.18
27-Sep-21	$ 27.77	$ 28.91	$ 30.22	$ 27.64
26-Sep-21	$ 28.83	$ 29.88	$ 30.03	$ 26.84
25-Sep-21	$ 29.84	$ 30.84	$ 32.23	$ 29.49
24-Sep-21	$ 30.84	$ 33.46	$ 33.55	$ 28.15
23-Sep-21	$ 33.54	$ 31.60	$ 33.59	$ 30.44
22-Sep-21	$ 31.61	$ 26.34	$ 31.99	$ 25.98
21-Sep-21	$ 26.32	$ 28.30	$ 30.26	$ 25.56
20-Sep-21	$ 28.05	$ 33.84	$ 33.89	$ 27.03
19-Sep-21	$ 33.80	$ 34.85	$ 34.88	$ 33.10
18-Sep-21	$ 34.90	$ 33.01	$ 35.83	$ 32.53
17-Sep-21	$ 33.02	$ 35.53	$ 36.89	$ 32.24
16-Sep-21	$ 35.55	$ 36.49	$ 36.96	$ 34.10
15-Sep-21	$ 36.46	$ 37.38	$ 38.00	$ 35.62
14-Sep-21	$ 37.38	$ 34.87	$ 38.68	$ 34.14
13-Sep-21	$ 34.77	$ 35.87	$ 37.93	$ 31.65
12-Sep-21	$ 35.77	$ 31.63	$ 36.30	$ 30.70
11-Sep-21	$ 31.59	$ 29.18	$ 32.05	$ 28.33
10-Sep-21	$ 29.22	$ 29.82	$ 32.57	$ 28.11
09-Sep-21	$ 29.84	$ 27.21	$ 31.80	$ 27.08
08-Sep-21	$ 27.71	$ 27.88	$ 28.87	$ 25.36
07-Sep-21	$ 27.83	$ 34.33	$ 35.67	$ 22.76
06-Sep-21	$ 34.31	$ 34.43	$ 35.01	$ 32.64
05-Sep-21	$ 34.41	$ 32.38	$ 34.74	$ 32.04
04-Sep-21	$ 32.42	$ 33.58	$ 34.06	$ 32.11
03-Sep-21	$ 33.67	$ 31.80	$ 34.01	$ 31.06
02-Sep-21	$ 31.81	$ 33.19	$ 33.19	$ 31.36
01-Sep-21	$ 33.14	$ 31.45	$ 33.78	$ 29.68
31-Aug-21	$ 31.47	$ 26.05	$ 31.91	$ 25.68
30-Aug-21	$ 26.04	$ 25.73	$ 27.56	$ 24.42
29-Aug-21	$ 25.73	$ 25.97	$ 26.47	$ 25.32
28-Aug-21	$ 25.97	$ 26.57	$ 26.75	$ 25.50
27-Aug-21	$ 26.57	$ 23.96	$ 26.74	$ 23.46
26-Aug-21	$ 23.98	$ 26.00	$ 26.38	$ 23.56
25-Aug-21	$ 25.94	$ 25.10	$ 26.53	$ 24.61
24-Aug-21	$ 25.08	$ 27.93	$ 28.17	$ 24.43
23-Aug-21	$ 27.89	$ 27.69	$ 28.64	$ 27.38
22-Aug-21	$ 27.74	$ 27.89	$ 28.52	$ 26.61
21-Aug-21	$ 27.87	$ 28.17	$ 29.35	$ 27.54
20-Aug-21	$ 28.15	$ 26.55	$ 28.44	$ 26.12
19-Aug-21	$ 26.55	$ 23.89	$ 26.81	$ 23.48
18-Aug-21	$ 23.95	$ 23.52	$ 25.13	$ 22.73
17-Aug-21	$ 23.53	$ 24.43	$ 27.39	$ 23.09
16-Aug-21	$ 24.54	$ 23.17	$ 25.65	$ 22.90
15-Aug-21	$ 23.17	$ 22.86	$ 23.34	$ 21.87
14-Aug-21	$ 22.86	$ 22.73	$ 23.48	$ 21.87
13-Aug-21	$ 22.71	$ 20.79	$ 22.71	$ 20.55
12-Aug-21	$ 20.75	$ 21.38	$ 22.28	$ 19.96
11-Aug-21	$ 21.40	$ 20.62	$ 22.40	$ 20.55
10-Aug-21	$ 20.61	$ 20.58	$ 21.39	$ 20.12
09-Aug-21	$ 20.62	$ 19.66	$ 21.25	$ 18.74
08-Aug-21	$ 19.68	$ 20.97	$ 21.17	$ 19.25
07-Aug-21	$ 20.97	$ 20.42	$ 21.68	$ 20.09
06-Aug-21	$ 20.40	$ 19.13	$ 20.76	$ 18.55
05-Aug-21	$ 19.13	$ 19.16	$ 19.45	$ 17.91
04-Aug-21	$ 19.16	$ 17.42	$ 19.52	$ 17.13

Date		Market Price (Close)		Open		High		Low
03-Aug-21	$	17.34	$	18.01	$	18.51	$	16.87
02-Aug-21	$	18.02	$	18.43	$	18.83	$	17.61
01-Aug-21	$	18.41	$	16.78	$	19.87	$	16.60
31-Jul-21	$	16.85	$	15.80	$	17.00	$	15.61
30-Jul-21	$	15.84	$	15.26	$	15.84	$	14.44
29-Jul-21	$	15.24	$	14.53	$	15.38	$	14.30
28-Jul-21	$	14.54	$	14.40	$	14.74	$	13.97
27-Jul-21	$	14.38	$	13.93	$	14.53	$	13.40
26-Jul-21	$	13.95	$	13.74	$	15.29	$	13.66
25-Jul-21	$	13.71	$	13.78	$	13.83	$	13.10
24-Jul-21	$	13.81	$	13.39	$	14.04	$	13.14
23-Jul-21	$	13.40	$	13.17	$	13.49	$	12.36
22-Jul-21	$	13.16	$	12.33	$	13.34	$	11.86
21-Jul-21	$	12.31	$	10.96	$	12.85	$	10.69
20-Jul-21	$	10.98	$	11.46	$	11.55	$	10.42
19-Jul-21	$	11.43	$	12.66	$	12.74	$	11.36
18-Jul-21	$	12.68	$	12.30	$	12.93	$	12.27
17-Jul-21	$	12.29	$	12.03	$	12.74	$	11.75
16-Jul-21	$	12.05	$	13.07	$	13.31	$	12.02
15-Jul-21	$	13.08	$	13.81	$	14.10	$	12.76
14-Jul-21	$	13.80	$	14.20	$	14.21	$	13.20
13-Jul-21	$	14.19	$	14.86	$	15.09	$	14.03
12-Jul-21	$	14.87	$	15.49	$	15.65	$	14.44
11-Jul-21	$	15.48	$	15.28	$	15.71	$	15.16
10-Jul-21	$	15.29	$	15.68	$	15.98	$	15.08
09-Jul-21	$	15.67	$	15.31	$	15.90	$	14.85
08-Jul-21	$	15.34	$	16.88	$	16.88	$	15.01
07-Jul-21	$	16.86	$	16.14	$	17.67	$	16.10
06-Jul-21	$	16.14	$	15.24	$	16.16	$	15.21
05-Jul-21	$	15.24	$	16.00	$	16.00	$	14.79
04-Jul-21	$	16.01	$	15.55	$	16.58	$	15.22
03-Jul-21	$	15.55	$	15.32	$	15.78	$	15.07
02-Jul-21	$	15.34	$	15.22	$	15.47	$	14.68
01-Jul-21	$	15.28	$	16.41	$	16.41	$	14.90
30-Jun-21	$	16.40	$	16.31	$	16.62	$	15.10
29-Jun-21	$	16.25	$	15.78	$	17.03	$	15.74
28-Jun-21	$	15.74	$	15.04	$	16.03	$	14.68
27-Jun-21	$	15.02	$	14.52	$	15.04	$	14.06
26-Jun-21	$	14.50	$	14.44	$	14.99	$	13.65
25-Jun-21	$	14.47	$	16.23	$	16.72	$	14.47
24-Jun-21	$	16.25	$	15.81	$	16.59	$	14.75
23-Jun-21	$	16.14	$	14.66	$	16.80	$	14.01
22-Jun-21	$	14.65	$	15.72	$	16.94	$	13.06
21-Jun-21	$	15.77	$	20.64	$	20.78	$	15.38
20-Jun-21	$	20.67	$	20.26	$	21.02	$	18.95
19-Jun-21	$	20.36	$	21.45	$	21.65	$	20.31
18-Jun-21	$	21.40	$	22.55	$	22.57	$	20.27
17-Jun-21	$	22.51	$	23.02	$	24.00	$	22.02
16-Jun-21	$	22.97	$	23.97	$	24.54	$	22.58
15-Jun-21	$	24.76	$	25.19	$	25.99	$	23.65
14-Jun-21	$	22.21	$	22.04	$	26.03	$	21.31
13-Jun-21	$	22.08	$	20.76	$	22.40	$	19.99
12-Jun-21	$	20.78	$	20.96	$	21.26	$	19.52
11-Jun-21	$	20.99	$	22.68	$	23.19	$	20.52
10-Jun-21	$	22.68	$	23.20	$	24.55	$	22.11
09-Jun-21	$	23.18	$	21.66	$	23.28	$	20.44
08-Jun-21	$	21.75	$	21.70	$	22.27	$	19.66
07-Jun-21	$	21.63	$	24.20	$	25.28	$	21.43

Date		Market Price (Close)		Open		High		Low
06-Jun-21	$	24.20	$	23.79	$	24.46	$	23.62
05-Jun-21	$	23.82	$	25.02	$	26.39	$	23.06
04-Jun-21	$	25.01	$	26.99	$	26.99	$	23.71
03-Jun-21	$	27.01	$	25.94	$	28.61	$	25.75
02-Jun-21	$	25.96	$	22.85	$	26.84	$	22.68
01-Jun-21	$	22.81	$	23.30	$	23.52	$	21.75
31-May-21	$	23.43	$	20.48	$	23.43	$	19.10
30-May-21	$	20.47	$	19.86	$	21.25	$	18.56
29-May-21	$	19.86	$	21.37	$	22.27	$	18.81
28-May-21	$	21.41	$	23.98	$	26.12	$	20.13
27-May-21	$	23.85	$	24.55	$	24.90	$	21.81
26-May-21	$	24.55	$	22.19	$	24.74	$	21.67
25-May-21	$	22.13	$	23.26	$	24.20	$	19.76
24-May-21	$	23.20	$	17.92	$	23.49	$	17.21
23-May-21	$	18.03	$	22.07	$	23.46	$	13.82
22-May-21	$	22.01	$	24.47	$	24.60	$	20.48
21-May-21	$	24.46	$	29.02	$	30.98	$	20.03
20-May-21	$	29.15	$	25.06	$	31.23	$	21.28
19-May-21	$	25.23	$	40.69	$	41.34	$	18.64
18-May-21	$	40.65	$	38.63	$	42.60	$	37.85
17-May-21	$	38.71	$	42.39	$	42.39	$	35.43
16-May-21	$	42.63	$	43.53	$	46.64	$	39.45
15-May-21	$	43.54	$	47.96	$	49.69	$	42.98
14-May-21	$	47.95	$	39.97	$	47.96	$	39.46
13-May-21	$	40.03	$	35.06	$	41.79	$	33.15
12-May-21	$	34.03	$	38.65	$	42.41	$	34.03
11-May-21	$	38.64	$	36.51	$	38.64	$	35.59
10-May-21	$	36.54	$	40.30	$	41.79	$	32.66
09-May-21	$	40.31	$	39.89	$	40.55	$	38.28
08-May-21	$	39.83	$	39.88	$	40.59	$	38.78
07-May-21	$	39.93	$	41.58	$	42.58	$	38.42
06-May-21	$	41.53	$	40.44	$	43.73	$	38.06
05-May-21	$	40.50	$	34.77	$	40.72	$	34.54
04-May-21	$	34.85	$	37.26	$	37.91	$	34.63
03-May-21	$	37.26	$	36.64	$	38.26	$	36.62
02-May-21	$	36.65	$	36.90	$	37.16	$	35.60
01-May-21	$	36.93	$	36.52	$	37.36	$	35.91
30-Apr-21	$	36.54	$	35.98	$	36.80	$	35.14
29-Apr-21	$	35.97	$	33.96	$	35.97	$	32.99
28-Apr-21	$	33.97	$	34.79	$	35.35	$	32.65
27-Apr-21	$	34.70	$	33.42	$	34.92	$	33.19
26-Apr-21	$	33.41	$	29.81	$	33.45	$	29.78
25-Apr-21	$	29.76	$	28.97	$	31.26	$	28.18
24-Apr-21	$	28.93	$	32.26	$	32.39	$	28.57
23-Apr-21	$	32.23	$	32.96	$	33.46	$	27.13
22-Apr-21	$	32.99	$	33.79	$	36.71	$	32.81
21-Apr-21	$	33.87	$	35.46	$	36.26	$	33.11
20-Apr-21	$	35.44	$	34.72	$	35.73	$	31.64
19-Apr-21	$	34.82	$	37.37	$	38.69	$	34.07
18-Apr-21	$	37.35	$	42.56	$	43.11	$	32.87
17-Apr-21	$	42.54	$	41.51	$	48.36	$	41.50
16-Apr-21	$	41.54	$	43.47	$	43.80	$	40.16
15-Apr-21	$	43.52	$	42.57	$	44.30	$	41.52
14-Apr-21	$	42.64	$	42.90	$	44.53	$	40.11
13-Apr-21	$	42.95	$	40.45	$	43.32	$	39.86
12-Apr-21	$	40.50	$	41.42	$	41.73	$	39.45
11-Apr-21	$	41.42	$	41.61	$	41.93	$	39.99
10-Apr-21	$	41.63	$	40.83	$	42.75	$	39.98

Date		Market Price (Close)		Open		High		Low
09-Apr-21	$	40.85	$	41.35	$	42.05	$	40.16
08-Apr-21	$	41.37	$	39.63	$	41.51	$	39.35
07-Apr-21	$	39.59	$	43.42	$	43.48	$	38.05
06-Apr-21	$	43.43	$	45.81	$	46.23	$	41.86
05-Apr-21	$	45.80	$	44.67	$	45.85	$	42.25
04-Apr-21	$	44.65	$	41.61	$	45.22	$	41.08
03-Apr-21	$	41.65	$	41.18	$	46.85	$	41.07
02-Apr-21	$	41.16	$	37.63	$	41.38	$	36.89
01-Apr-21	$	37.67	$	37.09	$	38.99	$	36.19
31-Mar-21	$	37.03	$	34.08	$	38.20	$	33.52
30-Mar-21	$	34.07	$	34.36	$	34.78	$	33.61
29-Mar-21	$	34.37	$	32.29	$	34.69	$	31.86
28-Mar-21	$	32.30	$	32.64	$	33.25	$	31.47
27-Mar-21	$	32.66	$	33.20	$	33.53	$	31.23
26-Mar-21	$	33.20	$	29.97	$	33.44	$	29.94
25-Mar-21	$	29.98	$	30.36	$	31.23	$	28.67
24-Mar-21	$	30.44	$	34.45	$	36.15	$	28.34
23-Mar-21	$	34.46	$	35.51	$	36.40	$	34.27
22-Mar-21	$	35.54	$	36.79	$	37.78	$	35.40
21-Mar-21	$	36.79	$	37.36	$	38.15	$	36.20
20-Mar-21	$	37.35	$	38.29	$	40.13	$	37.34
19-Mar-21	$	38.27	$	35.50	$	38.97	$	34.89
18-Mar-21	$	35.52	$	36.11	$	36.95	$	35.46
17-Mar-21	$	36.14	$	35.44	$	36.36	$	34.56
16-Mar-21	$	35.43	$	34.34	$	35.45	$	32.24
15-Mar-21	$	34.36	$	36.56	$	38.38	$	34.13
14-Mar-21	$	36.58	$	37.17	$	37.87	$	36.34
13-Mar-21	$	37.16	$	35.99	$	38.15	$	34.81
12-Mar-21	$	35.99	$	36.89	$	37.43	$	34.69
11-Mar-21	$	36.88	$	37.54	$	37.97	$	35.96
10-Mar-21	$	37.57	$	38.18	$	39.42	$	36.44
09-Mar-21	$	38.19	$	34.93	$	38.75	$	34.60
08-Mar-21	$	34.91	$	35.18	$	35.49	$	33.51
07-Mar-21	$	35.19	$	33.43	$	35.22	$	33.39
06-Mar-21	$	33.43	$	33.69	$	34.15	$	32.18
05-Mar-21	$	33.72	$	35.32	$	35.32	$	31.58
04-Mar-21	$	35.33	$	37.04	$	38.28	$	34.45
03-Mar-21	$	37.04	$	36.16	$	38.55	$	36.16
02-Mar-21	$	36.15	$	35.59	$	37.76	$	34.59
01-Mar-21	$	35.58	$	33.64	$	35.58	$	33.19
28-Feb-21	$	33.61	$	33.45	$	34.61	$	29.96
27-Feb-21	$	33.45	$	31.40	$	35.52	$	31.40
26-Feb-21	$	31.35	$	31.14	$	33.50	$	28.10
25-Feb-21	$	31.08	$	33.62	$	35.08	$	31.06
24-Feb-21	$	33.63	$	34.33	$	36.75	$	31.98
23-Feb-21	$	34.30	$	37.66	$	37.71	$	26.76
22-Feb-21	$	37.69	$	39.70	$	39.70	$	31.36
21-Feb-21	$	39.70	$	39.17	$	40.47	$	38.15
20-Feb-21	$	39.24	$	34.80	$	42.06	$	34.80
19-Feb-21	$	34.79	$	31.19	$	34.99	$	29.63
18-Feb-21	$	31.18	$	31.98	$	32.58	$	30.63
17-Feb-21	$	31.99	$	30.16	$	32.35	$	29.73
16-Feb-21	$	30.16	$	27.76	$	30.97	$	26.96
15-Feb-21	$	27.78	$	27.06	$	29.45	$	23.61
14-Feb-21	$	27.10	$	28.01	$	29.37	$	26.54
13-Feb-21	$	28.02	$	28.69	$	30.15	$	27.47
12-Feb-21	$	28.69	$	25.17	$	29.67	$	24.55
11-Feb-21	$	25.23	$	23.59	$	25.58	$	23.33

Date		Market Price (Close)		Open		High		Low
10-Feb-21	$	23.59	$	23.11	$	24.79	$	22.14
09-Feb-21	$	23.13	$	23.03	$	24.05	$	22.37
08-Feb-21	$	23.03	$	19.78	$	23.61	$	19.23
07-Feb-21	$	19.79	$	20.39	$	20.78	$	18.62
06-Feb-21	$	20.40	$	20.89	$	21.30	$	19.81
05-Feb-21	$	20.90	$	19.69	$	21.28	$	19.53
04-Feb-21	$	19.70	$	20.73	$	21.56	$	19.04
03-Feb-21	$	20.73	$	17.25	$	20.73	$	16.84
02-Feb-21	$	17.26	$	16.38	$	17.60	$	16.04
01-Feb-21	$	16.38	$	16.12	$	16.52	$	15.74
31-Jan-21	$	16.12	$	16.51	$	17.46	$	15.81
30-Jan-21	$	16.51	$	16.84	$	17.05	$	16.16
29-Jan-21	$	16.84	$	17.10	$	17.64	$	16.03
28-Jan-21	$	16.94	$	15.50	$	17.46	$	15.36
27-Jan-21	$	15.50	$	17.12	$	17.12	$	15.08
26-Jan-21	$	17.12	$	17.24	$	17.77	$	16.08
25-Jan-21	$	17.25	$	18.00	$	19.05	$	17.12
24-Jan-21	$	18.00	$	18.60	$	18.72	$	17.38
23-Jan-21	$	18.60	$	17.16	$	18.75	$	16.87
22-Jan-21	$	17.16	$	15.93	$	17.98	$	14.89
21-Jan-21	$	15.94	$	17.98	$	18.06	$	15.05
20-Jan-21	$	17.95	$	16.45	$	18.13	$	14.83
19-Jan-21	$	16.47	$	16.52	$	17.47	$	16.05
18-Jan-21	$	16.51	$	17.00	$	18.10	$	15.82
17-Jan-21	$	16.98	$	18.15	$	18.15	$	16.41
16-Jan-21	$	18.18	$	13.20	$	19.32	$	13.19
15-Jan-21	$	13.21	$	14.52	$	14.86	$	11.85
14-Jan-21	$	14.54	$	10.95	$	14.55	$	10.93
13-Jan-21	$	10.96	$	8.27	$	11.30	$	7.99
12-Jan-21	$	8.26	$	8.27	$	8.62	$	7.97
11-Jan-21	$	8.28	$	9.30	$	9.30	$	7.23
10-Jan-21	$	9.31	$	9.78	$	9.99	$	8.75
09-Jan-21	$	9.78	$	9.31	$	9.82	$	9.05
08-Jan-21	$	9.31	$	9.65	$	9.80	$	8.86
07-Jan-21	$	9.64	$	10.09	$	10.63	$	9.50
06-Jan-21	$	10.10	$	9.71	$	10.37	$	9.49
05-Jan-21	$	9.70	$	9.48	$	10.04	$	9.08
04-Jan-21	$	9.47	$	10.06	$	10.51	$	8.78
03-Jan-21	$	10.03	$	9.21	$	10.46	$	8.87
02-Jan-21	$	9.21	$	8.31	$	9.76	$	7.94
01-Jan-21	$	8.31	$	9.29	$	9.42	$	8.12
31-Dec-20	$	9.29	$	7.25	$	9.43	$	7.17
30-Dec-20	$	7.25	$	7.52	$	7.65	$	7.09
29-Dec-20	$	7.52	$	6.58	$	7.61	$	6.20
28-Dec-20	$	6.59	$	5.14	$	6.64	$	5.12
27-Dec-20	$	5.14	$	5.18	$	5.39	$	4.95
26-Dec-20	$	5.18	$	5.21	$	5.27	$	5.09
25-Dec-20	$	5.21	$	5.13	$	5.27	$	5.04
24-Dec-20	$	5.13	$	4.71	$	5.20	$	4.66
23-Dec-20	$	4.71	$	5.15	$	5.18	$	4.62
22-Dec-20	$	5.15	$	4.89	$	5.17	$	4.81
21-Dec-20	$	4.89	$	5.19	$	5.41	$	4.81
20-Dec-20	$	5.19	$	5.34	$	5.43	$	5.09
19-Dec-20	$	5.34	$	5.37	$	5.57	$	5.29
18-Dec-20	$	5.37	$	5.34	$	5.50	$	5.26
17-Dec-20	$	5.34	$	5.36	$	5.73	$	5.29
16-Dec-20	$	5.36	$	5.25	$	5.36	$	5.12
15-Dec-20	$	5.25	$	4.90	$	5.28	$	4.85

Date		Market Price (Close)		Open		High		Low
14-Dec-20	$	4.90	$	4.89	$	5.00	$	4.84
13-Dec-20	$	4.89	$	4.74	$	4.99	$	4.74
12-Dec-20	$	4.74	$	4.62	$	4.80	$	4.62
11-Dec-20	$	4.62	$	4.80	$	4.80	$	4.55
10-Dec-20	$	4.80	$	4.86	$	4.91	$	4.75
09-Dec-20	$	4.86	$	4.73	$	4.94	$	4.63
08-Dec-20	$	4.73	$	5.06	$	5.07	$	4.71
07-Dec-20	$	5.06	$	5.13	$	5.15	$	5.02
06-Dec-20	$	5.14	$	5.19	$	5.20	$	5.01
05-Dec-20	$	5.19	$	5.03	$	5.19	$	4.89
04-Dec-20	$	5.03	$	5.41	$	5.43	$	4.97
03-Dec-20	$	5.41	$	5.46	$	5.56	$	5.34
02-Dec-20	$	5.46	$	5.09	$	5.53	$	5.03
01-Dec-20	$	5.09	$	5.38	$	5.53	$	5.02
30-Nov-20	$	5.38	$	5.19	$	5.44	$	5.15
29-Nov-20	$	5.19	$	4.90	$	5.20	$	4.81
28-Nov-20	$	4.90	$	4.78	$	4.94	$	4.68
27-Nov-20	$	4.78	$	4.81	$	5.07	$	4.52
26-Nov-20	$	4.80	$	5.31	$	5.37	$	4.46
25-Nov-20	$	5.31	$	5.73	$	5.82	$	5.18
24-Nov-20	$	5.73	$	5.91	$	6.08	$	5.62
23-Nov-20	$	5.91	$	5.48	$	5.94	$	5.42
22-Nov-20	$	5.48	$	5.75	$	5.83	$	5.22
21-Nov-20	$	5.75	$	5.23	$	5.81	$	5.14
20-Nov-20	$	5.23	$	4.76	$	5.46	$	4.75
19-Nov-20	$	4.76	$	4.68	$	4.85	$	4.55
18-Nov-20	$	4.68	$	4.84	$	4.93	$	4.53
17-Nov-20	$	4.84	$	4.61	$	4.91	$	4.57
16-Nov-20	$	4.49	$	4.38	$	4.59	$	4.35
15-Nov-20	$	4.38	$	4.47	$	4.49	$	4.31
14-Nov-20	$	4.47	$	4.54	$	4.55	$	4.37
13-Nov-20	$	4.54	$	4.40	$	4.59	$	4.37
12-Nov-20	$	4.40	$	4.46	$	4.47	$	4.32
11-Nov-20	$	4.46	$	4.42	$	4.62	$	4.42
10-Nov-20	$	4.42	$	4.35	$	4.50	$	4.31
09-Nov-20	$	4.35	$	4.37	$	4.46	$	4.25
08-Nov-20	$	4.37	$	4.24	$	4.43	$	4.14
07-Nov-20	$	4.24	$	4.58	$	4.84	$	4.11
06-Nov-20	$	4.58	$	4.24	$	4.63	$	4.21
05-Nov-20	$	4.24	$	4.10	$	4.30	$	4.03
04-Nov-20	$	4.10	$	4.03	$	4.15	$	3.89
03-Nov-20	$	4.03	$	4.03	$	4.07	$	3.89
02-Nov-20	$	4.03	$	4.23	$	4.26	$	3.99
01-Nov-20	$	4.23	$	4.18	$	4.23	$	4.12
31-Oct-20	$	4.18	$	4.09	$	4.27	$	4.07
30-Oct-20	$	4.09	$	4.05	$	4.16	$	3.94
29-Oct-20	$	4.05	$	4.37	$	4.40	$	3.88
28-Oct-20	$	4.37	$	4.68	$	4.77	$	4.26
27-Oct-20	$	4.68	$	4.73	$	4.93	$	4.66
26-Oct-20	$	4.73	$	4.34	$	4.74	$	4.30
25-Oct-20	$	4.34	$	4.36	$	4.45	$	4.27
24-Oct-20	$	4.36	$	4.27	$	4.43	$	4.24
23-Oct-20	$	4.27	$	4.27	$	4.47	$	4.20
22-Oct-20	$	4.27	$	4.14	$	4.33	$	4.13
21-Oct-20	$	4.14	$	3.91	$	4.25	$	3.91
20-Oct-20	$	3.91	$	3.99	$	4.14	$	3.88
19-Oct-20	$	3.99	$	4.11	$	4.11	$	3.96
18-Oct-20	$	4.10	$	3.97	$	4.12	$	3.96

Date		Market Price (Close)		Open		High		Low
17-Oct-20	$	3.97	$	3.92	$	3.98	$	3.87
16-Oct-20	$	3.91	$	4.10	$	4.16	$	3.84
15-Oct-20	$	4.10	$	4.19	$	4.19	$	4.03
14-Oct-20	$	4.20	$	4.26	$	4.36	$	4.09
13-Oct-20	$	4.25	$	4.32	$	4.34	$	4.16
12-Oct-20	$	4.32	$	4.26	$	4.44	$	4.21
11-Oct-20	$	4.26	$	4.26	$	4.33	$	4.18
10-Oct-20	$	4.25	$	4.26	$	4.48	$	4.24
09-Oct-20	$	4.26	$	4.11	$	4.35	$	4.02
08-Oct-20	$	4.10	$	3.86	$	4.16	$	3.66
07-Oct-20	$	3.86	$	3.75	$	3.88	$	3.62
06-Oct-20	$	3.76	$	4.17	$	4.18	$	3.65
05-Oct-20	$	4.17	$	4.18	$	4.23	$	4.12
04-Oct-20	$	4.17	$	4.07	$	4.20	$	4.02
03-Oct-20	$	4.07	$	4.13	$	4.13	$	4.04
02-Oct-20	$	4.12	$	4.34	$	4.36	$	3.93
01-Oct-20	$	4.34	$	4.35	$	4.58	$	4.26
30-Sep-20	$	4.35	$	4.50	$	4.50	$	4.25
29-Sep-20	$	4.50	$	4.42	$	4.60	$	4.36
28-Sep-20	$	4.40	$	4.30	$	4.58	$	4.27
27-Sep-20	$	4.31	$	4.34	$	4.36	$	4.16
26-Sep-20	$	4.35	$	4.42	$	4.46	$	4.24
25-Sep-20	$	4.42	$	4.38	$	4.53	$	4.26
24-Sep-20	$	4.38	$	4.02	$	4.40	$	3.99
23-Sep-20	$	4.03	$	4.17	$	4.32	$	3.97
22-Sep-20	$	4.17	$	4.09	$	4.21	$	3.92
21-Sep-20	$	4.09	$	4.67	$	4.70	$	3.95
20-Sep-20	$	4.67	$	4.93	$	4.97	$	4.42
19-Sep-20	$	4.93	$	5.25	$	5.26	$	4.82
18-Sep-20	$	5.25	$	5.34	$	5.46	$	5.11
17-Sep-20	$	5.34	$	5.08	$	5.42	$	5.06
16-Sep-20	$	5.08	$	5.07	$	5.28	$	4.99
15-Sep-20	$	5.10	$	5.37	$	5.45	$	5.10
14-Sep-20	$	5.35	$	5.30	$	5.60	$	5.13
13-Sep-20	$	5.30	$	5.15	$	5.48	$	4.81
12-Sep-20	$	5.14	$	4.65	$	5.28	$	4.52
11-Sep-20	$	4.65	$	4.58	$	4.75	$	4.32
10-Sep-20	$	4.58	$	4.71	$	4.87	$	4.47
09-Sep-20	$	4.71	$	4.28	$	4.80	$	4.16
08-Sep-20	$	4.27	$	4.59	$	4.62	$	4.12
07-Sep-20	$	4.59	$	4.80	$	4.82	$	4.03
06-Sep-20	$	4.80	$	4.14	$	4.90	$	3.76
05-Sep-20	$	4.12	$	5.14	$	5.31	$	3.65
04-Sep-20	$	5.15	$	5.73	$	5.98	$	4.63
03-Sep-20	$	5.75	$	6.13	$	6.32	$	5.68
02-Sep-20	$	6.14	$	6.28	$	6.43	$	5.66
01-Sep-20	$	6.29	$	6.30	$	6.84	$	6.17
31-Aug-20	$	6.30	$	5.91	$	6.46	$	5.77
30-Aug-20	$	5.87	$	6.15	$	6.22	$	5.75
29-Aug-20	$	6.16	$	6.18	$	6.56	$	6.04
28-Aug-20	$	6.16	$	5.64	$	6.33	$	5.54
27-Aug-20	$	5.63	$	6.08	$	6.79	$	5.31
26-Aug-20	$	6.08	$	5.54	$	6.55	$	5.14
25-Aug-20	$	5.52	$	4.58	$	5.76	$	4.50
24-Aug-20	$	4.60	$	3.99	$	4.78	$	3.81
23-Aug-20	$	3.97	$	4.49	$	4.49	$	3.72
22-Aug-20	$	4.48	$	2.88	$	4.51	$	2.82
21-Aug-20	$	2.88	$	2.90	$	3.09	$	2.73

Date	Market Price (Close)	Open	High	Low
20-Aug-20	$ 2.90	$ 2.79	$ 3.08	$ 2.69

Statistics	Value
Accrual in Units	1 200.00
Accrual Date	01-May-20
Accrual Price	$ 0.73
Tax Rate	35.00%
Investment Rate	6.00%

Period	01-May-20	31-May-20	30-Jun-20	31-Jul-20	31-Aug-20	30-Sep-20	31-Oct-20	30-Nov-20	31-Dec-20	31-Jan-21
Monthly Average Price	$ 0.73	$ 0.60	$ 0.66	$ 1.08	$ 3.05	$ 3.15	$ 2.14	$ 1.97	$ 1.64	$ 3.26
Receipts-based Asset Model (Units)										
Opening Balance	-	195.00	228.15	261.38	294.74	328.22	361.77	395.47	429.24	463.16
Settlement of Unit Accrual	300.00	50.00	50.00	50.00	50.00	50.00	50.00	50.00	50.00	50.00
Investment Return - *in specie*	-	0.99	1.13	1.33	1.50	1.62	1.84	1.95	2.19	2.36
Tax Transactions	- 105.00	- 17.85	- 17.89	- 17.97	- 18.03	- 18.07	- 18.15	- 18.18	- 18.27	- 18.33
Closing Balance	195.00	228.15	261.38	294.74	328.22	361.77	395.47	429.24	463.16	497.19
Closing Market Value	**$ 142.12**	**$ 137.66**	**$ 172.18**	**$ 317.42**	**$ 1 002.66**	**$ 1 138.13**	**$ 846.18**	**$ 846.74**	**$ 758.54**	**$ 1 620.85**
Tax Collection (Nominal USD)										
Opportunity Cost of Treatment	$ -306.10	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Revenue Collected	$ 76.52	$ 10.77	$ 11.79	$ 19.35	$ 55.07	$ 56.84	$ 38.82	$ 35.87	$ 29.91	$ 59.74
Net Revenue	**$ -229.57**	**$ 10.77**	**$ 11.79**	**$ 19.35**	**$ 55.07**	**$ 56.84**	**$ 38.82**	**$ 35.87**	**$ 29.91**	**$ 59.74**

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32%

Total Nominal Revenue Collected:

$ 10 630.20

Accrual-based Asset Model (Units)	01-May-20	31-May-20	30-Jun-20	31-Jul-20	31-Aug-20	30-Sep-20	31-Oct-20	30-Nov-20	31-Dec-20	31-Jan-21
Opening Balance	-	- 120.00	- 70.40	- 20.62	29.31	79.41	129.66	180.09	230.67	281.43
Settlement of Unit Accrual	300.00	50.00	50.00	50.00	50.00	50.00	50.00	50.00	50.00	50.00
Investment Return - *in specie*	-	- 0.61	- 0.35	- 0.11	0.15	0.39	0.66	0.89	1.18	1.43
Tax Transactions	- 420.00	0.21	0.12	0.04	- 0.05	- 0.14	- 0.23	- 0.31	- 0.41	- 0.50
Closing Balance	- 120.00	- 70.40	- 20.62	29.31	79.41	129.66	180.09	230.67	281.43	332.36
Closing Market Value	$ -87.46	$ -42.48	$ -13.59	$ 31.56	$ 242.57	$ 407.91	$ 385.33	$ 455.03	$ 460.91	$ 1 083.50
Tax Collection (Nominal USD)										
Opportunity Cost of Treatment	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Revenue Collected	$ 306.10	$ -0.13	$ -0.08	$ -0.04	$ 0.16	$ 0.43	$ 0.49	$ 0.61	$ 0.67	$ 1.64
Net Revenue	**$ 306.10**	**$ -0.13**	**$ -0.08**	**$ -0.04**	**$ 0.16**	**$ 0.43**	**$ 0.49**	**$ 0.61**	**$ 0.67**	**$ 1.64**

Total Nominal Revenue Collected:

$ 928.11

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	28-Feb-21	31-Mar-21	30-Apr-21	31-May-21	30-Jun-21	31-Jul-21	31-Aug-21	30-Sep-21	31-Oct-21
Period	28-Feb-21	31-Mar-21	30-Apr-21	31-May-21	30-Jun-21	31-Jul-21	31-Aug-21	30-Sep-21	31-Oct-21
Monthly Average Price	$ 9.64	$ 14.85	$ 31.33	$ 39.89	$ 35.71	$ 30.40	$ 60.81	$ 151.16	$ 172.40
Receipts-based Asset Model (Units)									
Opening Balance	497.19	531.18	565.44	599.75	634.24	668.77	703.49	738.32	773.18
Settlement of Unit Accrual	50.00	50.00	50.00	50.00	50.00	50.00	50.00	50.00	50.00
Investment Return - *in specie*	2.29	2.71	2.79	3.06	3.13	3.41	3.58	3.64	3.94
Tax Transactions	- 18.30	- 18.45	- 18.48	- 18.57	- 18.59	- 18.69	- 18.75	- 18.77	- 18.88
Closing Balance	531.18	565.44	599.75	634.24	668.77	703.49	738.32	773.18	808.25
Closing Market Value	**$ 5 118.31**	**$ 8 397.33**	**$ 18 791.25**	**$ 25 297.96**	**$ 23 884.31**	**$ 21 385.11**	**$ 44 900.67**	**$ 116 877.13**	**$ 139 342.03**
Tax Collection (Nominal USD)									
Opportunity Cost of Treatment	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Revenue Collected	$ 176.34	$ 273.96	$ 578.88	$ 740.69	$ 664.09	$ 568.24	$ 1 140.56	$ 2 837.99	$ 3 254.76
Net Revenue	**$ 176.34**	**$ 273.96**	**$ 578.88**	**$ 740.69**	**$ 664.09**	**$ 568.24**	**$ 1 140.56**	**$ 2 837.99**	**$ 3 254.76**
IRR									
32%									
Total Nominal Revenue Collected:									
$ 10 630.20									
Accrual-based Asset Model (Units)									
Opening Balance	332.36	383.36	434.63	486.02	537.63	589.35	641.31	693.43	745.65
Settlement of Unit Accrual	50.00	50.00	50.00	50.00	50.00	50.00	50.00	50.00	50.00
Investment Return - *in specie*	1.53	1.95	2.14	2.48	2.65	3.00	3.27	3.42	3.80
Tax Transactions	- 0.54	- 0.68	- 0.75	- 0.87	- 0.93	- 1.05	- 1.14	- 1.20	- 1.33
Closing Balance	383.36	434.63	486.02	537.63	589.35	641.31	693.43	745.65	798.12
Closing Market Value	$ 3 693.92	$ 6 454.64	$ 15 227.83	$ 21 444.51	$ 21 047.98	$ 19 494.87	$ 42 170.84	$ 112 715.37	$ 137 596.87
Tax Collection (Nominal USD)									
Opportunity Cost of Treatment	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Revenue Collected	$ 5.16	$ 10.15	$ 23.50	$ 34.58	$ 33.14	$ 31.95	$ 69.56	$ 180.92	$ 229.28
Net Revenue	**$ 5.16**	**$ 10.15**	**$ 23.50**	**$ 34.58**	**$ 33.14**	**$ 31.95**	**$ 69.56**	**$ 180.92**	**$ 229.28**
Total Nominal Revenue Collected:									
$ 928.11									


Price over Time (Days)
$ 275.00
$ 250.00
$ 225.00
$ 200.00
$ 175.00
$ 150.00
$ 125.00
$ 100.00
$ 75.00
$ 50.00
$ 25.00
$-
$- 25.00
$- 50.00
$- 75.00
Market Price (Cloe)
10-Mar-20
18-Jun-20
26-Sep-20
04-Jan-21
14-Apr-21
23-Jul-21
31-Oct-21
08-Feb-22
Date Continuum
y = 0.2794x - 12320
R² = 0.5771
Market Price (Close)
Linear (Market Price (Close))

Date		Market Price (Close)		High		Low		Open		Volume
10-Apr-20	$	0.95	$	1.31	$	0.69	$	0.83	$	87 364 276.00
11-Apr-20	$	0.78	$	1.05	$	0.77	$	0.95	$	43 862 444.00
12-Apr-20	$	0.88	$	0.96	$	0.76	$	0.79	$	38 736 897.00
13-Apr-20	$	0.78	$	0.89	$	0.77	$	0.89	$	18 211 285.00
14-Apr-20	$	0.66	$	0.80	$	0.63	$	0.78	$	16 747 614.00
15-Apr-20	$	0.65	$	0.71	$	0.62	$	0.67	$	13 075 275.00
16-Apr-20	$	0.69	$	0.77	$	0.63	$	0.63	$	21 346 031.00
17-Apr-20	$	0.66	$	0.72	$	0.66	$	0.69	$	9 870 810.00
18-Apr-20	$	0.68	$	0.72	$	0.66	$	0.66	$	9 782 112.00
19-Apr-20	$	0.61	$	0.68	$	0.60	$	0.68	$	9 289 670.00
20-Apr-20	$	0.54	$	0.64	$	0.52	$	0.61	$	8 342 616.00
21-Apr-20	$	0.59	$	0.60	$	0.51	$	0.54	$	9 711 507.00
22-Apr-20	$	0.69	$	0.71	$	0.57	$	0.58	$	18 828 400.00
23-Apr-20	$	0.63	$	0.70	$	0.60	$	0.69	$	13 485 271.00
24-Apr-20	$	0.63	$	0.67	$	0.61	$	0.62	$	9 064 190.00
25-Apr-20	$	0.64	$	0.67	$	0.62	$	0.63	$	7 311 905.00
26-Apr-20	$	0.64	$	0.69	$	0.63	$	0.65	$	8 320 760.00
27-Apr-20	$	0.57	$	0.66	$	0.56	$	0.64	$	7 406 934.00
28-Apr-20	$	0.66	$	0.69	$	0.57	$	0.58	$	7 470 201.00
29-Apr-20	$	0.75	$	0.78	$	0.66	$	0.66	$	8 801 144.00
30-Apr-20	$	0.69	$	0.80	$	0.69	$	0.75	$	5 016 892.00
01-May-20	$	0.73	$	0.74	$	0.69	$	0.69	$	4 164 272.00
02-May-20	$	0.72	$	0.75	$	0.71	$	0.73	$	3 441 356.00
03-May-20	$	0.68	$	0.73	$	0.66	$	0.71	$	3 328 344.00
04-May-20	$	0.67	$	0.71	$	0.62	$	0.68	$	3 443 698.00
05-May-20	$	0.64	$	0.69	$	0.63	$	0.67	$	2 847 469.00
06-May-20	$	0.62	$	0.67	$	0.62	$	0.64	$	2 677 563.00
07-May-20	$	0.61	$	0.63	$	0.57	$	0.62	$	3 355 830.00
08-May-20	$	0.60	$	0.64	$	0.59	$	0.61	$	2 488 195.00
09-May-20	$	0.60	$	0.63	$	0.59	$	0.60	$	2 128 503.00
10-May-20	$	0.54	$	0.61	$	0.51	$	0.60	$	2 327 581.00
11-May-20	$	0.52	$	0.57	$	0.51	$	0.54	$	2 098 481.00
12-May-20	$	0.54	$	0.56	$	0.51	$	0.51	$	2 198 625.00
13-May-20	$	0.55	$	0.56	$	0.52	$	0.54	$	2 326 446.00
14-May-20	$	0.57	$	0.58	$	0.55	$	0.55	$	2 047 897.00
15-May-20	$	0.56	$	0.57	$	0.55	$	0.57	$	1 850 070.00
16-May-20	$	0.60	$	0.61	$	0.55	$	0.56	$	2 300 409.00
17-May-20	$	0.61	$	0.64	$	0.59	$	0.60	$	2 936 428.00
18-May-20	$	0.65	$	0.67	$	0.61	$	0.61	$	3 314 359.00
19-May-20	$	0.62	$	0.65	$	0.61	$	0.65	$	2 380 263.00
20-May-20	$	0.58	$	0.63	$	0.58	$	0.62	$	2 302 926.00
21-May-20	$	0.61	$	0.61	$	0.54	$	0.58	$	2 863 017.00
22-May-20	$	0.64	$	0.68	$	0.58	$	0.61	$	3 411 419.00
23-May-20	$	0.61	$	0.64	$	0.59	$	0.64	$	2 638 524.00
24-May-20	$	0.55	$	0.61	$	0.55	$	0.61	$	2 786 816.00
25-May-20	$	0.60	$	0.65	$	0.54	$	0.55	$	4 509 580.00
26-May-20	$	0.57	$	0.61	$	0.57	$	0.60	$	2 689 697.00
27-May-20	$	0.59	$	0.61	$	0.57	$	0.57	$	2 536 916.00
28-May-20	$	0.58	$	0.59	$	0.57	$	0.59	$	2 662 788.00
29-May-20	$	0.58	$	0.59	$	0.57	$	0.57	$	2 066 857.00
30-May-20	$	0.59	$	0.60	$	0.57	$	0.58	$	2 449 095.00
31-May-20	$	0.57	$	0.59	$	0.57	$	0.59	$	1 892 967.00
01-Jun-20	$	0.58	$	0.59	$	0.57	$	0.57	$	2 159 877.00
02-Jun-20	$	0.56	$	0.59	$	0.55	$	0.58	$	1 295 757.00
03-Jun-20	$	0.59	$	0.59	$	0.56	$	0.56	$	877 446.00
04-Jun-20	$	0.59	$	0.59	$	0.56	$	0.59	$	901 641.00
05-Jun-20	$	0.66	$	0.70	$	0.58	$	0.59	$	4 322 092.00
06-Jun-20	$	0.62	$	0.66	$	0.61	$	0.66	$	1 604 055.00

Date	Market Price (Close)	High	Low	Open	Volume
07-Jun-20	$ 0.62	$ 0.62	$ 0.59	$ 0.62	$ 716 785.00
08-Jun-20	$ 0.67	$ 0.68	$ 0.61	$ 0.62	$ 1 440 234.00
09-Jun-20	$ 0.66	$ 0.67	$ 0.63	$ 0.67	$ 988 327.00
10-Jun-20	$ 0.64	$ 0.67	$ 0.63	$ 0.66	$ 1 096 203.00
11-Jun-20	$ 0.57	$ 0.65	$ 0.57	$ 0.64	$ 1 122 221.00
12-Jun-20	$ 0.59	$ 0.60	$ 0.57	$ 0.57	$ 940 323.00
13-Jun-20	$ 0.61	$ 0.61	$ 0.59	$ 0.59	$ 764 757.00
14-Jun-20	$ 0.59	$ 0.62	$ 0.58	$ 0.61	$ 873 416.00
15-Jun-20	$ 0.57	$ 0.59	$ 0.55	$ 0.59	$ 942 666.00
16-Jun-20	$ 0.59	$ 0.59	$ 0.57	$ 0.57	$ 652 020.00
17-Jun-20	$ 0.58	$ 0.59	$ 0.57	$ 0.59	$ 673 274.00
18-Jun-20	$ 0.62	$ 0.65	$ 0.58	$ 0.58	$ 1 349 341.00
19-Jun-20	$ 0.68	$ 0.84	$ 0.62	$ 0.62	$ 6 577 471.00
20-Jun-20	$ 0.64	$ 0.69	$ 0.63	$ 0.68	$ 1 714 405.00
21-Jun-20	$ 0.67	$ 0.75	$ 0.64	$ 0.65	$ 2 238 347.00
22-Jun-20	$ 0.73	$ 0.74	$ 0.65	$ 0.67	$ 1 620 388.00
23-Jun-20	$ 0.71	$ 0.76	$ 0.70	$ 0.73	$ 1 327 340.00
24-Jun-20	$ 0.74	$ 0.80	$ 0.69	$ 0.71	$ 2 769 054.00
25-Jun-20	$ 0.71	$ 0.76	$ 0.70	$ 0.74	$ 1 751 581.00
26-Jun-20	$ 0.74	$ 0.75	$ 0.68	$ 0.71	$ 1 664 662.00
27-Jun-20	$ 0.71	$ 0.75	$ 0.68	$ 0.74	$ 1 681 428.00
28-Jun-20	$ 0.80	$ 0.84	$ 0.69	$ 0.71	$ 3 412 582.00
29-Jun-20	$ 0.85	$ 0.89	$ 0.77	$ 0.80	$ 2 147 791.00
30-Jun-20	$ 0.86	$ 1.03	$ 0.85	$ 0.85	$ 3 887 548.00
01-Jul-20	$ 0.83	$ 0.90	$ 0.82	$ 0.86	$ 1 772 560.00
02-Jul-20	$ 0.78	$ 0.84	$ 0.75	$ 0.83	$ 1 749 581.00
03-Jul-20	$ 0.77	$ 0.79	$ 0.76	$ 0.78	$ 1 144 958.00
04-Jul-20	$ 0.78	$ 0.82	$ 0.76	$ 0.77	$ 1 644 301.00
05-Jul-20	$ 0.69	$ 0.79	$ 0.64	$ 0.78	$ 3 799 016.00
06-Jul-20	$ 0.71	$ 0.72	$ 0.69	$ 0.69	$ 1 120 773.00
07-Jul-20	$ 0.75	$ 0.78	$ 0.70	$ 0.71	$ 1 700 041.00
08-Jul-20	$ 0.80	$ 0.83	$ 0.74	$ 0.75	$ 2 220 223.00
09-Jul-20	$ 0.85	$ 0.88	$ 0.76	$ 0.79	$ 2 668 724.00
10-Jul-20	$ 0.91	$ 0.94	$ 0.84	$ 0.85	$ 1 856 095.00
11-Jul-20	$ 0.92	$ 0.93	$ 0.86	$ 0.91	$ 1 788 814.00
12-Jul-20	$ 1.02	$ 1.13	$ 0.91	$ 0.92	$ 4 693 371.00
13-Jul-20	$ 1.18	$ 1.29	$ 1.01	$ 1.02	$ 4 062 069.00
14-Jul-20	$ 1.15	$ 1.25	$ 1.12	$ 1.17	$ 2 213 135.00
15-Jul-20	$ 1.29	$ 1.40	$ 1.14	$ 1.15	$ 3 355 229.00
16-Jul-20	$ 0.87	$ 1.37	$ 0.86	$ 1.28	$ 7 486 568.00
17-Jul-20	$ 0.98	$ 1.05	$ 0.80	$ 0.87	$ 8 973 774.00
18-Jul-20	$ 0.97	$ 1.00	$ 0.93	$ 0.98	$ 2 923 007.00
19-Jul-20	$ 0.92	$ 0.97	$ 0.90	$ 0.97	$ 2 206 671.00
20-Jul-20	$ 0.87	$ 0.92	$ 0.85	$ 0.92	$ 3 036 871.00
21-Jul-20	$ 0.98	$ 1.01	$ 0.86	$ 0.87	$ 4 299 502.00
22-Jul-20	$ 1.04	$ 1.10	$ 0.97	$ 0.98	$ 5 295 002.00
23-Jul-20	$ 1.05	$ 1.10	$ 1.00	$ 1.05	$ 2 970 423.00
24-Jul-20	$ 1.00	$ 1.05	$ 0.97	$ 1.05	$ 1 991 763.00
25-Jul-20	$ 1.25	$ 1.43	$ 1.00	$ 1.00	$ 9 978 279.00
26-Jul-20	$ 1.57	$ 1.62	$ 1.24	$ 1.24	$ 10 463 130.00
27-Jul-20	$ 1.78	$ 2.04	$ 1.56	$ 1.57	$ 32 838 355.00
28-Jul-20	$ 1.78	$ 1.86	$ 1.61	$ 1.78	$ 9 692 632.00
29-Jul-20	$ 1.66	$ 2.10	$ 1.59	$ 1.79	$ 10 348 945.00
30-Jul-20	$ 1.69	$ 1.80	$ 1.64	$ 1.66	$ 5 222 980.00
31-Jul-20	$ 1.54	$ 1.69	$ 1.51	$ 1.69	$ 4 822 046.00
01-Aug-20	$ 1.53	$ 1.66	$ 1.50	$ 1.53	$ 4 589 882.00
02-Aug-20	$ 1.74	$ 1.75	$ 1.41	$ 1.53	$ 7 216 576.00
03-Aug-20	$ 1.80	$ 1.83	$ 1.67	$ 1.73	$ 5 836 036.00

Date	Market Price (Close)	High	Low	Open	Volume
04-Aug-20	$ 1.87	$ 1.95	$ 1.79	$ 1.80	$ 5 495 665.00
05-Aug-20	$ 1.75	$ 1.89	$ 1.71	$ 1.87	$ 5 405 764.00
06-Aug-20	$ 2.21	$ 2.23	$ 1.75	$ 1.75	$ 11 143 557.00
07-Aug-20	$ 2.09	$ 2.20	$ 1.89	$ 2.20	$ 8 068 102.00
08-Aug-20	$ 2.47	$ 2.57	$ 2.03	$ 2.08	$ 10 919 229.00
09-Aug-20	$ 2.67	$ 2.71	$ 2.30	$ 2.47	$ 12 107 837.00
10-Aug-20	$ 3.13	$ 3.40	$ 2.53	$ 2.67	$ 22 863 251.00
11-Aug-20	$ 3.30	$ 3.49	$ 2.75	$ 3.13	$ 36 356 155.00
12-Aug-20	$ 3.77	$ 3.92	$ 3.10	$ 3.31	$ 28 461 707.00
13-Aug-20	$ 3.76	$ 4.16	$ 3.53	$ 3.77	$ 28 236 179.00
14-Aug-20	$ 3.41	$ 3.79	$ 3.33	$ 3.76	$ 18 427 950.00
15-Aug-20	$ 3.18	$ 3.72	$ 3.17	$ 3.41	$ 13 155 762.00
16-Aug-20	$ 3.39	$ 3.47	$ 3.14	$ 3.19	$ 10 395 313.00
17-Aug-20	$ 3.10	$ 3.39	$ 3.09	$ 3.39	$ 10 723 919.00
18-Aug-20	$ 3.33	$ 3.71	$ 2.89	$ 3.10	$ 30 350 145.00
19-Aug-20	$ 2.90	$ 3.48	$ 2.84	$ 3.33	$ 14 838 389.00
20-Aug-20	$ 3.21	$ 3.43	$ 2.90	$ 2.90	$ 13 756 478.00
21-Aug-20	$ 2.94	$ 3.22	$ 2.91	$ 3.21	$ 11 796 736.00
22-Aug-20	$ 3.02	$ 3.19	$ 2.76	$ 2.95	$ 10 296 805.00
23-Aug-20	$ 3.32	$ 3.40	$ 3.02	$ 3.02	$ 11 991 402.00
24-Aug-20	$ 3.34	$ 3.61	$ 3.22	$ 3.31	$ 15 785 208.00
25-Aug-20	$ 3.26	$ 3.36	$ 3.03	$ 3.35	$ 13 444 308.00
26-Aug-20	$ 3.56	$ 3.80	$ 3.19	$ 3.27	$ 22 147 431.00
27-Aug-20	$ 3.45	$ 3.85	$ 3.29	$ 3.56	$ 21 031 356.00
28-Aug-20	$ 4.01	$ 4.31	$ 3.45	$ 3.45	$ 27 212 888.00
29-Aug-20	$ 3.97	$ 4.11	$ 3.79	$ 4.01	$ 14 585 964.00
30-Aug-20	$ 4.44	$ 4.71	$ 3.92	$ 3.97	$ 22 220 239.00
31-Aug-20	$ 4.78	$ 4.87	$ 4.11	$ 4.42	$ 20 950 150.00
01-Sep-20	$ 4.34	$ 4.94	$ 4.34	$ 4.78	$ 16 944 927.00
02-Sep-20	$ 4.16	$ 4.36	$ 3.71	$ 4.35	$ 23 655 802.00
03-Sep-20	$ 3.53	$ 4.44	$ 3.53	$ 4.17	$ 26 473 634.00
04-Sep-20	$ 3.55	$ 3.83	$ 3.20	$ 3.52	$ 17 729 340.00
05-Sep-20	$ 2.60	$ 3.66	$ 2.19	$ 3.55	$ 25 062 205.00
06-Sep-20	$ 3.09	$ 3.18	$ 2.29	$ 2.60	$ 20 375 890.00
07-Sep-20	$ 2.93	$ 3.19	$ 2.39	$ 3.09	$ 17 135 013.00
08-Sep-20	$ 2.47	$ 2.94	$ 2.40	$ 2.93	$ 10 163 725.00
09-Sep-20	$ 3.64	$ 3.75	$ 2.39	$ 2.47	$ 52 354 542.00
10-Sep-20	$ 3.47	$ 3.85	$ 3.32	$ 3.64	$ 31 177 875.00
11-Sep-20	$ 3.43	$ 3.50	$ 3.04	$ 3.47	$ 17 090 627.00
12-Sep-20	$ 3.33	$ 3.47	$ 3.15	$ 3.42	$ 10 368 518.00
13-Sep-20	$ 3.23	$ 3.47	$ 3.01	$ 3.34	$ 15 316 353.00
14-Sep-20	$ 3.27	$ 3.52	$ 3.09	$ 3.23	$ 21 301 450.00
15-Sep-20	$ 2.94	$ 3.32	$ 2.92	$ 3.27	$ 11 992 538.00
16-Sep-20	$ 2.55	$ 2.94	$ 2.45	$ 2.94	$ 24 199 804.00
17-Sep-20	$ 2.89	$ 2.93	$ 2.37	$ 2.55	$ 23 792 220.00
18-Sep-20	$ 3.11	$ 3.16	$ 2.74	$ 2.89	$ 23 510 207.00
19-Sep-20	$ 3.03	$ 3.25	$ 2.97	$ 3.11	$ 10 763 973.00
20-Sep-20	$ 2.87	$ 3.03	$ 2.72	$ 3.03	$ 9 217 295.00
21-Sep-20	$ 2.78	$ 3.03	$ 2.50	$ 2.87	$ 19 492 894.00
22-Sep-20	$ 2.92	$ 2.99	$ 2.67	$ 2.77	$ 18 556 523.00
23-Sep-20	$ 2.84	$ 3.07	$ 2.75	$ 2.93	$ 16 096 650.00
24-Sep-20	$ 3.13	$ 3.25	$ 2.80	$ 2.84	$ 18 993 326.00
25-Sep-20	$ 3.19	$ 3.27	$ 2.91	$ 3.15	$ 15 935 143.00
26-Sep-20	$ 3.13	$ 3.20	$ 3.04	$ 3.19	$ 11 018 475.00
27-Sep-20	$ 3.15	$ 3.17	$ 3.01	$ 3.13	$ 9 734 368.00
28-Sep-20	$ 2.96	$ 3.20	$ 2.94	$ 3.15	$ 10 950 201.00
29-Sep-20	$ 2.95	$ 3.01	$ 2.90	$ 2.96	$ 8 821 253.00
30-Sep-20	$ 2.90	$ 2.98	$ 2.84	$ 2.95	$ 7 767 702.00

Date		Market Price (Close)		High		Low		Open		Volume
01-Oct-20	$	2.86	$	2.99	$	2.66	$	2.90	$	10 825 966.00
02-Oct-20	$	2.63	$	2.88	$	2.46	$	2.86	$	15 856 539.00
03-Oct-20	$	2.55	$	2.67	$	2.55	$	2.63	$	6 155 891.00
04-Oct-20	$	2.52	$	2.59	$	2.43	$	2.54	$	7 075 729.00
05-Oct-20	$	2.66	$	2.66	$	2.47	$	2.52	$	8 105 684.00
06-Oct-20	$	2.18	$	2.66	$	2.15	$	2.66	$	9 739 071.00
07-Oct-20	$	2.29	$	2.39	$	2.10	$	2.18	$	11 759 752.00
08-Oct-20	$	2.37	$	2.43	$	2.03	$	2.30	$	14 931 922.00
09-Oct-20	$	2.54	$	2.63	$	2.32	$	2.37	$	12 002 959.00
10-Oct-20	$	2.41	$	2.59	$	2.40	$	2.54	$	8 842 884.00
11-Oct-20	$	2.43	$	2.46	$	2.34	$	2.41	$	7 170 647.00
12-Oct-20	$	2.59	$	2.70	$	2.42	$	2.43	$	12 289 969.00
13-Oct-20	$	2.40	$	2.58	$	2.35	$	2.58	$	11 415 737.00
14-Oct-20	$	2.31	$	2.44	$	2.25	$	2.41	$	9 436 239.00
15-Oct-20	$	2.27	$	2.34	$	2.20	$	2.31	$	8 332 483.00
16-Oct-20	$	2.15	$	2.27	$	2.13	$	2.27	$	13 637 728.00
17-Oct-20	$	2.20	$	2.24	$	2.13	$	2.15	$	6 612 612.00
18-Oct-20	$	2.21	$	2.25	$	2.18	$	2.20	$	6 294 162.00
19-Oct-20	$	2.06	$	2.21	$	2.05	$	2.21	$	8 248 860.00
20-Oct-20	$	1.89	$	2.10	$	1.85	$	2.06	$	13 129 043.00
21-Oct-20	$	1.89	$	2.07	$	1.86	$	1.89	$	19 275 509.00
22-Oct-20	$	1.96	$	2.08	$	1.89	$	1.89	$	11 445 663.00
23-Oct-20	$	1.96	$	1.98	$	1.85	$	1.96	$	11 497 445.00
24-Oct-20	$	1.91	$	1.96	$	1.88	$	1.96	$	7 581 827.00
25-Oct-20	$	1.79	$	1.92	$	1.77	$	1.91	$	9 092 334.00
26-Oct-20	$	1.69	$	1.86	$	1.63	$	1.79	$	13 396 736.00
27-Oct-20	$	1.71	$	1.75	$	1.61	$	1.69	$	14 384 427.00
28-Oct-20	$	1.49	$	1.72	$	1.39	$	1.71	$	17 089 719.00
29-Oct-20	$	1.43	$	1.57	$	1.41	$	1.49	$	8 024 138.00
30-Oct-20	$	1.44	$	1.47	$	1.34	$	1.43	$	8 528 336.00
31-Oct-20	$	1.54	$	1.55	$	1.43	$	1.44	$	6 449 388.00
01-Nov-20	$	1.60	$	1.64	$	1.51	$	1.54	$	6 877 557.00
02-Nov-20	$	1.47	$	1.63	$	1.47	$	1.60	$	6 366 346.00
03-Nov-20	$	1.41	$	1.48	$	1.41	$	1.47	$	6 536 977.00
04-Nov-20	$	1.39	$	1.41	$	1.28	$	1.41	$	11 406 316.00
05-Nov-20	$	1.41	$	1.49	$	1.30	$	1.39	$	8 924 132.00
06-Nov-20	$	1.91	$	1.94	$	1.40	$	1.41	$	22 547 497.00
07-Nov-20	$	2.03	$	2.48	$	1.84	$	1.91	$	51 426 100.00
08-Nov-20	$	2.16	$	2.26	$	1.97	$	2.03	$	25 931 043.00
09-Nov-20	$	2.03	$	2.19	$	1.96	$	2.16	$	18 210 626.00
10-Nov-20	$	2.25	$	2.31	$	2.01	$	2.03	$	16 170 833.00
11-Nov-20	$	2.00	$	2.28	$	1.97	$	2.25	$	13 877 949.00
12-Nov-20	$	1.90	$	2.05	$	1.83	$	2.00	$	11 506 048.00
13-Nov-20	$	2.02	$	2.06	$	1.90	$	1.90	$	11 621 744.00
14-Nov-20	$	1.92	$	2.03	$	1.88	$	2.02	$	8 134 593.00
15-Nov-20	$	2.04	$	2.21	$	1.92	$	1.92	$	18 621 333.00
16-Nov-20	$	2.26	$	2.36	$	1.99	$	2.04	$	22 156 135.00
17-Nov-20	$	2.20	$	2.32	$	2.13	$	2.28	$	17 074 175.00
18-Nov-20	$	2.12	$	2.21	$	2.01	$	2.20	$	14 629 648.00
19-Nov-20	$	2.08	$	2.18	$	2.02	$	2.12	$	10 155 987.00
20-Nov-20	$	2.10	$	2.23	$	2.06	$	2.08	$	11 113 990.00
21-Nov-20	$	2.38	$	2.50	$	2.05	$	2.10	$	20 288 343.00
22-Nov-20	$	2.14	$	2.40	$	2.05	$	2.38	$	16 416 065.00
23-Nov-20	$	2.28	$	2.35	$	2.12	$	2.14	$	15 487 339.00
24-Nov-20	$	2.27	$	2.47	$	2.14	$	2.28	$	25 036 626.00
25-Nov-20	$	2.27	$	2.48	$	2.18	$	2.27	$	24 870 951.00
26-Nov-20	$	1.90	$	2.29	$	1.74	$	2.27	$	33 038 223.00
27-Nov-20	$	1.86	$	1.97	$	1.78	$	1.90	$	13 307 808.00

Date		Market Price (Close)		High		Low		Open		Volume
28-Nov-20	$	1.89	$	1.94	$	1.81	$	1.86	$	11 661 883.00
29-Nov-20	$	1.92	$	1.94	$	1.86	$	1.89	$	6 139 511.00
30-Nov-20	$	1.97	$	2.01	$	1.91	$	1.92	$	8 716 571.00
01-Dec-20	$	1.98	$	2.13	$	1.93	$	1.97	$	12 847 022.00
02-Dec-20	$	2.12	$	2.19	$	1.96	$	1.98	$	15 849 828.00
03-Dec-20	$	2.10	$	2.22	$	2.09	$	2.12	$	18 106 122.00
04-Dec-20	$	1.86	$	2.11	$	1.85	$	2.10	$	9 019 864.00
05-Dec-20	$	1.98	$	1.98	$	1.83	$	1.86	$	7 750 781.00
06-Dec-20	$	1.85	$	1.98	$	1.82	$	1.98	$	7 167 230.00
07-Dec-20	$	1.83	$	1.90	$	1.81	$	1.85	$	6 425 070.00
08-Dec-20	$	1.67	$	1.83	$	1.65	$	1.83	$	11 304 051.00
09-Dec-20	$	1.66	$	1.67	$	1.50	$	1.66	$	10 461 119.00
10-Dec-20	$	1.57	$	1.67	$	1.55	$	1.66	$	6 167 983.00
11-Dec-20	$	1.44	$	1.58	$	1.44	$	1.57	$	8 273 918.00
12-Dec-20	$	1.49	$	1.54	$	1.44	$	1.44	$	7 085 231.00
13-Dec-20	$	1.57	$	1.64	$	1.46	$	1.49	$	8 389 349.00
14-Dec-20	$	1.59	$	1.62	$	1.52	$	1.57	$	8 672 052.00
15-Dec-20	$	1.76	$	1.80	$	1.59	$	1.59	$	19 470 080.00
16-Dec-20	$	1.78	$	1.79	$	1.61	$	1.76	$	18 277 631.00
17-Dec-20	$	1.68	$	1.80	$	1.66	$	1.78	$	15 461 477.00
18-Dec-20	$	1.70	$	1.71	$	1.64	$	1.68	$	7 879 397.00
19-Dec-20	$	1.67	$	1.76	$	1.66	$	1.70	$	9 095 045.00
20-Dec-20	$	1.56	$	1.68	$	1.53	$	1.67	$	9 093 229.00
21-Dec-20	$	1.54	$	1.62	$	1.50	$	1.56	$	8 333 991.00
22-Dec-20	$	1.49	$	1.57	$	1.47	$	1.54	$	11 066 565.00
23-Dec-20	$	1.21	$	1.51	$	1.09	$	1.49	$	16 776 307.00
24-Dec-20	$	1.36	$	1.38	$	1.17	$	1.21	$	9 236 939.00
25-Dec-20	$	1.45	$	1.45	$	1.35	$	1.36	$	9 359 549.00
26-Dec-20	$	1.32	$	1.45	$	1.31	$	1.45	$	6 798 656.00
27-Dec-20	$	1.30	$	1.41	$	1.27	$	1.33	$	12 286 531.00
28-Dec-20	$	1.52	$	1.52	$	1.29	$	1.30	$	12 668 150.00
29-Dec-20	$	1.67	$	1.73	$	1.44	$	1.52	$	26 355 259.00
30-Dec-20	$	1.54	$	1.68	$	1.53	$	1.67	$	12 663 616.00
31-Dec-20	$	1.51	$	1.55	$	1.43	$	1.54	$	12 763 260.00
01-Jan-21	$	1.84	$	1.86	$	1.50	$	1.51	$	25 722 549.00
02-Jan-21	$	1.80	$	1.99	$	1.72	$	1.85	$	31 671 064.00
03-Jan-21	$	2.16	$	2.36	$	1.80	$	1.80	$	55 073 422.00
04-Jan-21	$	2.49	$	2.49	$	1.88	$	2.16	$	59 955 405.00
05-Jan-21	$	2.16	$	2.50	$	2.08	$	2.49	$	50 555 207.00
06-Jan-21	$	1.93	$	2.19	$	1.91	$	2.16	$	50 263 975.00
07-Jan-21	$	2.37	$	2.61	$	1.93	$	1.94	$	159 870 278.00
08-Jan-21	$	3.22	$	3.78	$	2.18	$	2.37	$	206 412 154.00
09-Jan-21	$	3.39	$	3.66	$	2.94	$	3.22	$	91 906 875.00
10-Jan-21	$	3.47	$	3.73	$	3.20	$	3.39	$	62 766 977.00
11-Jan-21	$	3.11	$	3.51	$	2.60	$	3.46	$	82 877 500.00
12-Jan-21	$	3.61	$	3.84	$	3.08	$	3.10	$	73 484 689.00
13-Jan-21	$	3.51	$	3.63	$	3.27	$	3.63	$	57 994 893.00
14-Jan-21	$	3.28	$	3.54	$	3.18	$	3.52	$	59 283 112.00
15-Jan-21	$	3.25	$	3.44	$	2.99	$	3.28	$	45 331 739.00
16-Jan-21	$	3.45	$	3.70	$	3.25	$	3.25	$	68 035 606.00
17-Jan-21	$	3.82	$	3.97	$	3.32	$	3.43	$	85 407 766.00
18-Jan-21	$	3.80	$	4.15	$	3.66	$	3.82	$	70 601 713.00
19-Jan-21	$	3.64	$	4.03	$	3.61	$	3.79	$	44 547 768.00
20-Jan-21	$	3.72	$	3.74	$	3.34	$	3.64	$	46 698 656.00
21-Jan-21	$	2.99	$	3.73	$	2.98	$	3.72	$	43 834 765.00
22-Jan-21	$	3.35	$	3.50	$	2.54	$	2.99	$	63 361 382.00
23-Jan-21	$	3.50	$	3.60	$	3.32	$	3.34	$	27 904 470.00
24-Jan-21	$	3.63	$	3.79	$	3.49	$	3.51	$	32 747 555.00

Date		Market Price (Close)		High		Low		Open		Volume
25-Jan-21	$	3.70	$	3.97	$	3.45	$	3.63	$	80 055 958.00
26-Jan-21	$	4.05	$	4.10	$	3.68	$	3.70	$	78 823 456.00
27-Jan-21	$	3.69	$	4.05	$	3.53	$	4.05	$	35 195 110.00
28-Jan-21	$	3.82	$	3.94	$	3.61	$	3.69	$	31 410 527.00
29-Jan-21	$	3.83	$	3.89	$	3.64	$	3.86	$	44 053 151.00
30-Jan-21	$	4.22	$	4.31	$	3.77	$	3.84	$	53 378 198.00
31-Jan-21	$	4.26	$	4.79	$	4.17	$	4.24	$	78 376 267.00
01-Feb-21	$	4.61	$	4.61	$	4.12	$	4.26	$	39 361 629.00
02-Feb-21	$	5.27	$	5.40	$	4.48	$	4.61	$	98 755 962.00
03-Feb-21	$	5.72	$	5.78	$	5.07	$	5.25	$	49 386 327.00
04-Feb-21	$	6.43	$	6.53	$	5.60	$	5.73	$	108 249 482.00
05-Feb-21	$	6.68	$	7.13	$	6.43	$	6.44	$	92 892 157.00
06-Feb-21	$	6.11	$	6.80	$	5.71	$	6.69	$	102 365 494.00
07-Feb-21	$	6.70	$	6.87	$	5.77	$	6.12	$	105 451 103.00
08-Feb-21	$	7.88	$	8.06	$	6.49	$	6.70	$	155 254 261.00
09-Feb-21	$	7.82	$	8.47	$	7.57	$	7.87	$	121 037 873.00
10-Feb-21	$	9.07	$	9.07	$	7.61	$	7.82	$	120 679 902.00
11-Feb-21	$	9.22	$	9.71	$	8.76	$	9.08	$	53 600 048.00
12-Feb-21	$	9.25	$	9.92	$	9.08	$	9.21	$	91 484 664.00
13-Feb-21	$	8.73	$	9.50	$	8.68	$	9.24	$	91 417 968.00
14-Feb-21	$	8.74	$	9.22	$	8.56	$	8.74	$	93 500 423.00
15-Feb-21	$	8.86	$	9.31	$	7.84	$	8.72	$	109 854 635.00
16-Feb-21	$	8.30	$	8.98	$	7.98	$	8.86	$	71 625 205.00
17-Feb-21	$	8.22	$	8.43	$	7.54	$	8.30	$	89 948 578.00
18-Feb-21	$	8.98	$	9.28	$	8.23	$	8.23	$	77 306 770.00
19-Feb-21	$	11.47	$	11.68	$	8.56	$	8.98	$	261 175 711.00
20-Feb-21	$	10.00	$	11.79	$	9.82	$	11.48	$	140 264 810.00
21-Feb-21	$	11.09	$	11.64	$	9.89	$	9.99	$	137 742 366.00
22-Feb-21	$	14.45	$	14.55	$	9.26	$	11.07	$	574 136 241.00
23-Feb-21	$	15.20	$	15.74	$	11.60	$	14.42	$	485 252 846.00
24-Feb-21	$	17.30	$	18.15	$	14.86	$	15.21	$	375 439 707.00
25-Feb-21	$	13.82	$	17.70	$	13.80	$	17.23	$	364 505 276.00
26-Feb-21	$	13.59	$	15.48	$	13.12	$	13.87	$	289 687 328.00
27-Feb-21	$	13.20	$	14.61	$	13.06	$	13.60	$	247 640 940.00
28-Feb-21	$	13.09	$	13.78	$	11.49	$	13.21	$	300 493 226.00
01-Mar-21	$	14.96	$	15.52	$	13.06	$	13.11	$	306 451 693.00
02-Mar-21	$	13.96	$	15.22	$	13.46	$	14.97	$	178 549 852.00
03-Mar-21	$	14.12	$	14.73	$	13.77	$	13.96	$	153 830 742.00
04-Mar-21	$	13.10	$	14.26	$	12.77	$	14.09	$	116 364 466.00
05-Mar-21	$	12.61	$	13.08	$	12.18	$	13.07	$	90 978 408.00
06-Mar-21	$	13.04	$	13.27	$	11.90	$	12.57	$	118 851 546.00
07-Mar-21	$	13.88	$	14.00	$	12.73	$	13.04	$	117 548 176.00
08-Mar-21	$	13.60	$	13.87	$	13.08	$	13.83	$	115 525 659.00
09-Mar-21	$	14.85	$	14.99	$	13.32	$	13.62	$	134 867 044.00
10-Mar-21	$	14.23	$	15.19	$	14.08	$	14.85	$	103 150 901.00
11-Mar-21	$	15.99	$	16.24	$	13.70	$	14.22	$	229 272 516.00
12-Mar-21	$	14.55	$	16.49	$	14.11	$	16.02	$	185 287 457.00
13-Mar-21	$	15.31	$	15.39	$	13.92	$	14.56	$	145 102 757.00
14-Mar-21	$	14.51	$	15.35	$	14.38	$	15.30	$	90 232 804.00
15-Mar-21	$	14.19	$	14.79	$	13.70	$	14.48	$	102 600 692.00
16-Mar-21	$	13.62	$	14.28	$	13.23	$	14.16	$	112 303 590.00
17-Mar-21	$	14.22	$	14.27	$	13.13	$	13.63	$	94 696 339.00
18-Mar-21	$	14.23	$	14.75	$	13.83	$	14.21	$	79 074 263.00
19-Mar-21	$	14.20	$	14.49	$	13.93	$	14.23	$	68 715 211.00
20-Mar-21	$	14.21	$	14.98	$	14.15	$	14.20	$	68 049 683.00
21-Mar-21	$	14.33	$	14.37	$	13.67	$	14.22	$	64 229 338.00
22-Mar-21	$	14.92	$	16.60	$	14.20	$	14.35	$	260 995 136.00
23-Mar-21	$	14.20	$	15.24	$	14.10	$	14.85	$	106 780 662.00

Date		Market Price (Close)		High		Low		Open		Volume
24-Mar-21	$	13.66	$	15.37	$	13.66	$	14.19	$	118 813 690.00
25-Mar-21	$	13.03	$	13.71	$	12.61	$	13.65	$	116 277 943.00
26-Mar-21	$	14.78	$	14.80	$	12.37	$	13.02	$	149 987 319.00
27-Mar-21	$	16.51	$	16.80	$	14.76	$	14.79	$	223 872 587.00
28-Mar-21	$	18.02	$	19.39	$	16.35	$	16.48	$	426 120 062.00
29-Mar-21	$	18.85	$	18.99	$	17.70	$	18.08	$	216 748 601.00
30-Mar-21	$	19.23	$	20.87	$	18.89	$	18.89	$	264 028 427.00
31-Mar-21	$	19.47	$	19.80	$	18.16	$	19.10	$	206 011 018.00
01-Apr-21	$	19.08	$	20.36	$	18.84	$	19.42	$	173 731 886.00
02-Apr-21	$	19.81	$	19.82	$	18.57	$	19.08	$	131 061 660.00
03-Apr-21	$	22.55	$	23.83	$	19.79	$	19.80	$	483 057 740.00
04-Apr-21	$	24.06	$	25.57	$	22.21	$	22.53	$	426 557 980.00
05-Apr-21	$	22.98	$	24.78	$	22.81	$	23.93	$	264 085 329.00
06-Apr-21	$	24.96	$	25.35	$	21.88	$	22.98	$	320 886 935.00
07-Apr-21	$	26.48	$	27.49	$	23.09	$	25.15	$	676 846 221.00
08-Apr-21	$	27.03	$	27.97	$	25.72	$	26.51	$	377 988 327.00
09-Apr-21	$	27.78	$	29.01	$	26.90	$	26.99	$	282 477 938.00
10-Apr-21	$	26.84	$	28.26	$	25.96	$	27.65	$	270 235 258.00
11-Apr-21	$	27.93	$	28.69	$	25.58	$	26.81	$	232 938 762.00
12-Apr-21	$	28.51	$	29.86	$	26.84	$	27.92	$	308 804 546.00
13-Apr-21	$	27.44	$	28.80	$	26.42	$	28.54	$	258 183 912.00
14-Apr-21	$	26.48	$	27.48	$	24.79	$	27.40	$	342 565 805.00
15-Apr-21	$	27.82	$	28.25	$	25.54	$	26.44	$	221 346 739.00
16-Apr-21	$	25.40	$	28.23	$	24.97	$	27.82	$	240 665 351.00
17-Apr-21	$	25.10	$	26.82	$	25.10	$	25.37	$	201 720 376.00
18-Apr-21	$	32.30	$	32.90	$	21.54	$	25.14	$	1 155 150 688.00
19-Apr-21	$	31.68	$	36.08	$	29.93	$	32.34	$	1 219 130 981.00
20-Apr-21	$	31.77	$	32.70	$	28.93	$	31.48	$	793 008 154.00
21-Apr-21	$	32.51	$	35.00	$	30.17	$	31.68	$	729 130 141.00
22-Apr-21	$	38.88	$	40.97	$	31.60	$	32.68	$	1 638 622 971.00
23-Apr-21	$	36.98	$	41.46	$	31.66	$	38.90	$	1 612 232 268.00
24-Apr-21	$	40.74	$	43.53	$	34.68	$	37.26	$	1 101 380 795.00
25-Apr-21	$	47.37	$	48.43	$	40.51	$	40.85	$	1 583 800 800.00
26-Apr-21	$	43.98	$	48.31	$	43.37	$	47.54	$	1 357 487 872.00
27-Apr-21	$	43.24	$	46.55	$	42.56	$	43.89	$	904 891 996.00
28-Apr-21	$	44.83	$	46.92	$	40.67	$	43.16	$	1 021 154 320.00
29-Apr-21	$	42.46	$	46.07	$	40.95	$	44.85	$	772 259 307.00
30-Apr-21	$	42.96	$	44.27	$	41.24	$	42.50	$	534 976 437.00
01-May-21	$	49.51	$	49.84	$	42.03	$	42.89	$	859 524 423.00
02-May-21	$	46.89	$	49.90	$	45.98	$	49.50	$	571 072 187.00
03-May-21	$	45.93	$	49.01	$	45.04	$	46.90	$	609 194 252.00
04-May-21	$	42.73	$	47.76	$	42.31	$	45.98	$	682 976 428.00
05-May-21	$	44.92	$	45.93	$	42.32	$	42.64	$	503 781 975.00
06-May-21	$	43.46	$	44.97	$	42.59	$	44.97	$	391 497 018.00
07-May-21	$	43.16	$	46.06	$	41.44	$	43.50	$	514 344 601.00
08-May-21	$	45.56	$	46.64	$	42.30	$	43.15	$	451 056 655.00
09-May-21	$	44.33	$	47.12	$	43.30	$	45.62	$	510 603 312.00
10-May-21	$	42.91	$	45.88	$	39.56	$	44.34	$	499 528 076.00
11-May-21	$	44.58	$	45.15	$	39.76	$	42.87	$	473 731 333.00
12-May-21	$	42.46	$	48.98	$	42.46	$	44.59	$	1 151 668 076.00
13-May-21	$	41.00	$	45.42	$	37.53	$	43.24	$	1 016 860 656.00
14-May-21	$	42.72	$	44.79	$	39.99	$	41.03	$	504 167 711.00
15-May-21	$	43.46	$	45.39	$	39.37	$	42.70	$	500 445 722.00
16-May-21	$	47.20	$	52.50	$	41.92	$	43.40	$	1 990 976 771.00
17-May-21	$	46.86	$	51.88	$	43.30	$	46.90	$	1 951 921 366.00
18-May-21	$	55.91	$	58.30	$	46.19	$	46.66	$	2 025 388 219.00
19-May-21	$	35.11	$	57.53	$	29.43	$	56.09	$	2 772 224 999.00
20-May-21	$	44.74	$	51.26	$	32.32	$	35.04	$	2 487 748 626.00

Date		Market Price (Close)		High		Low		Open		Volume
21-May-21	$	38.81	$	47.65	$	33.84	$	44.45	$	1 769 762 028.00
22-May-21	$	31.32	$	40.01	$	31.25	$	38.99	$	1 078 751 751.00
23-May-21	$	24.69	$	32.44	$	19.14	$	31.23	$	1 925 832 341.00
24-May-21	$	31.28	$	32.09	$	24.50	$	24.50	$	1 346 786 023.00
25-May-21	$	30.00	$	33.13	$	26.10	$	31.40	$	909 470 305.00
26-May-21	$	35.54	$	37.24	$	29.01	$	30.05	$	1 069 991 365.00
27-May-21	$	33.58	$	35.53	$	31.13	$	35.48	$	649 389 058.00
28-May-21	$	29.04	$	34.50	$	28.07	$	33.68	$	600 255 582.00
29-May-21	$	27.38	$	30.02	$	25.75	$	29.00	$	376 859 866.00
30-May-21	$	28.60	$	29.75	$	25.65	$	27.41	$	359 661 704.00
31-May-21	$	32.82	$	32.98	$	27.52	$	28.60	$	534 826 504.00
01-Jun-21	$	30.99	$	33.29	$	29.88	$	32.77	$	432 053 117.00
02-Jun-21	$	33.96	$	35.04	$	30.43	$	30.94	$	497 567 418.00
03-Jun-21	$	39.47	$	41.15	$	33.79	$	34.02	$	960 056 106.00
04-Jun-21	$	37.42	$	39.61	$	34.31	$	39.58	$	1 056 279 506.00
05-Jun-21	$	39.59	$	42.82	$	37.10	$	37.42	$	1 112 426 664.00
06-Jun-21	$	42.31	$	43.38	$	38.96	$	39.75	$	794 387 364.00
07-Jun-21	$	38.26	$	44.10	$	38.09	$	42.25	$	923 157 614.00
08-Jun-21	$	41.52	$	42.48	$	33.69	$	38.25	$	1 786 996 802.00
09-Jun-21	$	42.03	$	44.00	$	39.37	$	41.28	$	1 218 831 041.00
10-Jun-21	$	41.10	$	43.00	$	39.60	$	42.02	$	595 246 689.00
11-Jun-21	$	36.05	$	41.31	$	35.31	$	41.11	$	518 666 603.00
12-Jun-21	$	36.44	$	37.61	$	34.32	$	36.16	$	549 070 417.00
13-Jun-21	$	38.77	$	39.36	$	34.78	$	36.51	$	452 988 674.00
14-Jun-21	$	38.71	$	40.48	$	36.81	$	38.70	$	477 871 463.00
15-Jun-21	$	41.15	$	41.76	$	39.44	$	40.54	$	605 285 143.00
16-Jun-21	$	39.70	$	41.50	$	37.50	$	39.55	$	576 016 902.00
17-Jun-21	$	39.26	$	41.24	$	38.29	$	39.69	$	417 775 600.00
18-Jun-21	$	36.65	$	39.43	$	35.00	$	39.27	$	424 163 369.00
19-Jun-21	$	35.35	$	37.35	$	34.98	$	36.82	$	264 640 750.00
20-Jun-21	$	35.32	$	35.93	$	31.36	$	35.24	$	452 587 531.00
21-Jun-21	$	26.66	$	35.50	$	25.95	$	35.26	$	760 344 541.00
22-Jun-21	$	26.77	$	28.71	$	20.38	$	26.59	$	1 258 580 061.00
23-Jun-21	$	30.05	$	32.77	$	25.70	$	26.91	$	1 111 302 687.00
24-Jun-21	$	31.18	$	32.99	$	28.55	$	30.85	$	641 150 364.00
25-Jun-21	$	28.70	$	32.90	$	28.04	$	31.17	$	632 052 177.00
26-Jun-21	$	29.71	$	30.01	$	26.71	$	28.61	$	560 342 710.00
27-Jun-21	$	31.93	$	31.93	$	29.27	$	29.75	$	497 353 288.00
28-Jun-21	$	32.93	$	34.24	$	31.04	$	31.88	$	473 612 135.00
29-Jun-21	$	33.87	$	35.79	$	32.73	$	33.01	$	471 854 279.00
30-Jun-21	$	35.56	$	35.95	$	31.60	$	33.96	$	570 984 168.00
01-Jul-21	$	33.40	$	35.54	$	32.39	$	35.51	$	474 665 321.00
02-Jul-21	$	34.02	$	34.03	$	31.48	$	33.31	$	440 298 780.00
03-Jul-21	$	34.48	$	35.40	$	33.30	$	34.02	$	327 019 964.00
04-Jul-21	$	34.31	$	35.50	$	33.56	$	34.50	$	303 420 520.00
05-Jul-21	$	32.98	$	34.46	$	32.48	$	34.28	$	313 839 322.00
06-Jul-21	$	34.27	$	34.98	$	32.93	$	32.93	$	365 336 040.00
07-Jul-21	$	36.59	$	38.01	$	33.84	$	34.23	$	519 252 659.00
08-Jul-21	$	33.20	$	36.92	$	32.80	$	36.72	$	498 201 257.00
09-Jul-21	$	33.26	$	34.39	$	31.99	$	33.13	$	327 170 629.00
10-Jul-21	$	31.79	$	34.14	$	31.19	$	33.32	$	296 566 657.00
11-Jul-21	$	32.18	$	32.54	$	31.41	$	31.69	$	211 679 810.00
12-Jul-21	$	30.85	$	32.64	$	30.07	$	32.17	$	221 058 993.00
13-Jul-21	$	29.12	$	31.09	$	28.92	$	30.79	$	197 825 362.00
14-Jul-21	$	31.28	$	31.44	$	27.52	$	29.14	$	331 866 434.00
15-Jul-21	$	28.45	$	31.48	$	28.01	$	31.36	$	329 918 376.00
16-Jul-21	$	26.37	$	29.44	$	26.23	$	28.55	$	374 718 328.00
17-Jul-21	$	26.72	$	27.70	$	26.04	$	26.25	$	289 689 475.00

Date	Market Price (Close)	High	Low	Open	Volume
18-Jul-21	$ 26.75	$ 27.73	$ 26.36	$ 26.78	$ 230 336 396.00
19-Jul-21	$ 24.45	$ 26.72	$ 24.01	$ 26.67	$ 361 915 410.00
20-Jul-21	$ 23.49	$ 24.98	$ 22.18	$ 24.51	$ 413 439 963.00
21-Jul-21	$ 26.62	$ 27.42	$ 22.87	$ 23.44	$ 555 770 206.00
22-Jul-21	$ 27.70	$ 28.14	$ 25.95	$ 26.67	$ 364 666 998.00
23-Jul-21	$ 28.51	$ 28.69	$ 26.43	$ 27.71	$ 407 955 237.00
24-Jul-21	$ 28.70	$ 29.51	$ 28.07	$ 28.52	$ 353 750 758.00
25-Jul-21	$ 28.17	$ 28.87	$ 26.53	$ 28.65	$ 309 208 018.00
26-Jul-21	$ 28.31	$ 31.05	$ 27.90	$ 28.23	$ 743 673 802.00
27-Jul-21	$ 28.07	$ 28.95	$ 27.01	$ 28.21	$ 375 599 550.00
28-Jul-21	$ 27.82	$ 28.75	$ 27.41	$ 28.15	$ 315 682 626.00
29-Jul-21	$ 31.28	$ 31.89	$ 27.37	$ 27.88	$ 448 009 571.00
30-Jul-21	$ 32.39	$ 33.06	$ 30.07	$ 31.28	$ 617 830 199.00
31-Jul-21	$ 36.83	$ 36.87	$ 31.68	$ 32.35	$ 587 168 181.00
01-Aug-21	$ 34.25	$ 36.72	$ 33.28	$ 36.68	$ 490 639 931.00
02-Aug-21	$ 33.22	$ 35.91	$ 33.06	$ 34.19	$ 407 399 691.00
03-Aug-21	$ 34.00	$ 35.83	$ 32.40	$ 33.19	$ 474 629 269.00
04-Aug-21	$ 35.76	$ 36.65	$ 33.27	$ 34.11	$ 413 657 602.00
05-Aug-21	$ 37.36	$ 38.21	$ 35.53	$ 35.77	$ 595 137 193.00
06-Aug-21	$ 39.45	$ 40.39	$ 35.69	$ 37.36	$ 589 190 671.00
07-Aug-21	$ 39.40	$ 40.51	$ 37.63	$ 39.49	$ 534 979 916.00
08-Aug-21	$ 37.67	$ 39.53	$ 36.94	$ 39.47	$ 358 570 315.00
09-Aug-21	$ 38.77	$ 40.00	$ 36.48	$ 37.66	$ 377 034 585.00
10-Aug-21	$ 40.64	$ 41.66	$ 38.22	$ 38.68	$ 452 480 699.00
11-Aug-21	$ 41.74	$ 43.74	$ 40.63	$ 40.65	$ 507 980 107.00
12-Aug-21	$ 41.10	$ 43.40	$ 39.38	$ 41.70	$ 527 833 804.00
13-Aug-21	$ 44.89	$ 44.90	$ 40.72	$ 41.11	$ 541 894 525.00
14-Aug-21	$ 44.11	$ 44.87	$ 42.94	$ 44.85	$ 363 834 257.00
15-Aug-21	$ 53.75	$ 54.63	$ 43.45	$ 44.15	$ 1 448 656 564.00
16-Aug-21	$ 62.43	$ 68.82	$ 52.47	$ 53.54	$ 3 799 339 365.00
17-Aug-21	$ 64.21	$ 74.89	$ 58.98	$ 62.12	$ 4 043 742 154.00
18-Aug-21	$ 72.54	$ 80.12	$ 60.27	$ 64.17	$ 4 507 409 622.00
19-Aug-21	$ 72.76	$ 75.09	$ 68.61	$ 72.84	$ 2 467 398 203.00
20-Aug-21	$ 78.72	$ 79.99	$ 70.94	$ 72.75	$ 1 844 455 899.00
21-Aug-21	$ 73.76	$ 81.81	$ 72.70	$ 78.70	$ 1 513 097 171.00
22-Aug-21	$ 72.80	$ 77.48	$ 71.55	$ 73.87	$ 968 933 849.00
23-Aug-21	$ 75.71	$ 76.71	$ 71.68	$ 72.77	$ 1 372 134 245.00
24-Aug-21	$ 70.67	$ 79.37	$ 68.62	$ 75.78	$ 2 153 611 667.00
25-Aug-21	$ 71.95	$ 72.70	$ 66.22	$ 70.68	$ 1 551 240 766.00
26-Aug-21	$ 75.32	$ 78.06	$ 66.26	$ 71.97	$ 2 713 050 538.00
27-Aug-21	$ 88.09	$ 88.85	$ 72.72	$ 74.81	$ 3 263 988 286.00
28-Aug-21	$ 96.70	$ 97.84	$ 85.79	$ 88.00	$ 2 580 080 503.00
29-Aug-21	$ 94.47	$ 97.78	$ 90.99	$ 96.56	$ 1 830 344 091.00
30-Aug-21	$ 110.54	$ 116.85	$ 94.04	$ 94.34	$ 5 274 104 165.00
31-Aug-21	$ 108.48	$ 130.01	$ 103.35	$ 109.76	$ 7 590 894 022.00
01-Sep-21	$ 111.03	$ 119.53	$ 106.27	$ 107.44	$ 3 974 443 896.00
02-Sep-21	$ 128.10	$ 131.96	$ 109.65	$ 110.73	$ 5 074 399 603.00
03-Sep-21	$ 146.58	$ 148.83	$ 128.39	$ 128.39	$ 7 526 373 837.00
04-Sep-21	$ 139.11	$ 150.43	$ 136.45	$ 146.42	$ 3 970 422 964.00
05-Sep-21	$ 142.07	$ 145.00	$ 135.08	$ 138.99	$ 2 996 918 105.00
06-Sep-21	$ 164.38	$ 165.88	$ 138.04	$ 142.06	$ 5 774 090 688.00
07-Sep-21	$ 173.15	$ 194.82	$ 133.10	$ 164.18	$ 17 068 643 416.00
08-Sep-21	$ 191.04	$ 197.99	$ 147.99	$ 173.28	$ 13 187 213 606.00
09-Sep-21	$ 188.20	$ 214.96	$ 181.45	$ 209.47	$ 12 676 272 744.00
10-Sep-21	$ 179.87	$ 196.95	$ 168.69	$ 187.61	$ 7 087 524 572.00
11-Sep-21	$ 178.87	$ 193.41	$ 175.57	$ 179.37	$ 5 367 389 010.00
12-Sep-21	$ 174.54	$ 181.57	$ 170.58	$ 179.23	$ 3 012 633 094.00
13-Sep-21	$ 169.27	$ 174.93	$ 150.97	$ 174.42	$ 6 437 530 449.00

Date		Market Price (Close)		High		Low		Open		Volume
14-Sep-21	$	158.09	$	171.30	$	143.55	$	169.77	$	5 799 758 794.00
15-Sep-21	$	159.12	$	166.18	$	154.24	$	158.42	$	3 908 939 772.00
16-Sep-21	$	152.47	$	163.12	$	147.65	$	158.81	$	3 215 168 472.00
17-Sep-21	$	147.59	$	153.44	$	135.25	$	152.35	$	4 675 731 485.00
18-Sep-21	$	169.18	$	171.14	$	144.39	$	147.45	$	5 415 012 910.00
19-Sep-21	$	152.52	$	170.65	$	151.25	$	169.23	$	3 350 530 308.00
20-Sep-21	$	132.13	$	153.39	$	131.26	$	152.79	$	5 623 667 250.00
21-Sep-21	$	123.95	$	144.47	$	116.34	$	132.76	$	5 243 953 819.00
22-Sep-21	$	147.92	$	150.94	$	122.35	$	124.18	$	4 952 222 859.00
23-Sep-21	$	149.75	$	152.36	$	143.20	$	148.06	$	3 389 212 044.00
24-Sep-21	$	139.40	$	151.20	$	128.80	$	149.94	$	3 852 350 632.00
25-Sep-21	$	136.18	$	144.07	$	134.11	$	139.30	$	2 037 106 949.00
26-Sep-21	$	135.70	$	140.78	$	125.12	$	136.22	$	2 674 182 809.00
27-Sep-21	$	136.73	$	148.50	$	133.98	$	135.93	$	2 867 246 888.00
28-Sep-21	$	131.54	$	139.29	$	128.24	$	136.51	$	2 422 542 861.00
29-Sep-21	$	135.35	$	140.04	$	131.23	$	132.34	$	2 428 105 040.00
30-Sep-21	$	141.07	$	142.85	$	134.31	$	135.41	$	2 244 376 110.00
01-Oct-21	$	161.68	$	164.74	$	138.44	$	141.38	$	4 387 488 320.00
02-Oct-21	$	169.09	$	174.90	$	156.32	$	161.59	$	3 471 658 582.00
03-Oct-21	$	172.59	$	176.97	$	166.07	$	169.11	$	3 149 579 954.00
04-Oct-21	$	166.73	$	172.96	$	162.77	$	172.96	$	3 109 040 100.00
05-Oct-21	$	164.12	$	169.98	$	160.59	$	166.99	$	2 541 087 419.00
06-Oct-21	$	154.11	$	165.36	$	150.77	$	164.61	$	3 259 712 887.00
07-Oct-21	$	154.28	$	161.36	$	150.54	$	153.96	$	2 579 187 256.00
08-Oct-21	$	158.95	$	168.85	$	152.76	$	154.26	$	2 781 848 650.00
09-Oct-21	$	156.83	$	161.41	$	154.87	$	158.70	$	1 522 023 824.00
10-Oct-21	$	148.05	$	158.36	$	146.90	$	156.75	$	1 556 965 341.00
11-Oct-21	$	144.86	$	153.92	$	140.36	$	147.80	$	1 851 795 187.00
12-Oct-21	$	152.74	$	153.26	$	137.81	$	145.01	$	2 853 992 440.00
13-Oct-21	$	148.18	$	155.35	$	144.41	$	152.52	$	2 105 226 551.00
14-Oct-21	$	149.76	$	155.33	$	147.33	$	148.02	$	1 948 101 208.00
15-Oct-21	$	162.60	$	165.12	$	146.98	$	150.05	$	3 970 589 003.00
16-Oct-21	$	157.54	$	164.71	$	156.74	$	163.01	$	1 531 502 795.00
17-Oct-21	$	159.74	$	167.43	$	154.09	$	157.46	$	2 168 838 138.00
18-Oct-21	$	157.23	$	162.86	$	155.03	$	160.00	$	1 698 878 759.00
19-Oct-21	$	156.02	$	159.41	$	153.22	$	157.21	$	1 400 902 548.00
20-Oct-21	$	175.95	$	176.44	$	155.20	$	155.88	$	3 315 306 825.00
21-Oct-21	$	190.32	$	193.60	$	176.77	$	176.77	$	6 865 815 461.00
22-Oct-21	$	196.43	$	214.04	$	188.27	$	190.45	$	7 486 821 306.00
23-Oct-21	$	197.70	$	205.67	$	192.56	$	196.30	$	3 253 670 286.00
24-Oct-21	$	202.36	$	204.72	$	185.57	$	197.97	$	3 413 057 378.00
25-Oct-21	$	210.10	$	218.73	$	198.20	$	202.32	$	4 837 376 169.00
26-Oct-21	$	199.81	$	213.98	$	197.49	$	209.53	$	3 194 205 752.00
27-Oct-21	$	183.77	$	205.40	$	178.73	$	199.87	$	4 552 692 842.00
28-Oct-21	$	194.86	$	201.05	$	182.22	$	184.52	$	3 463 958 628.00
29-Oct-21	$	200.18	$	204.90	$	194.91	$	194.91	$	2 468 703 579.00
30-Oct-21	$	195.42	$	200.39	$	187.82	$	200.23	$	1 732 207 667.00
31-Oct-21	$	202.42	$	205.16	$	186.06	$	195.77	$	2 577 364 486.00
01-Nov-21	$	203.55	$	211.36	$	198.24	$	202.63	$	3 157 612 663.00
02-Nov-21	$	220.24	$	222.23	$	201.18	$	203.52	$	3 020 087 232.00
03-Nov-21	$	242.90	$	246.32	$	216.20	$	221.08	$	6 024 951 132.00
04-Nov-21	$	247.39	$	250.47	$	235.15	$	243.10	$	4 440 296 290.00
05-Nov-21	$	236.47	$	248.38	$	231.16	$	247.27	$	2 752 870 913.00
06-Nov-21	$	258.93	$	260.06	$	235.29	$	236.49	$	3 869 779 683.00
07-Nov-21	$	249.82	$	258.85	$	246.12	$	258.78	$	2 624 869 522.00
08-Nov-21	$	248.47	$	253.25	$	241.14	$	249.98	$	3 344 410 176.00
09-Nov-21	$	239.21	$	253.18	$	237.90	$	248.36	$	2 819 309 492.00
10-Nov-21	$	233.78	$	247.95	$	218.39	$	239.13	$	3 873 202 098.00

Date	Market Price (Close)	High	Low	Open	Volume
11-Nov-21	$ 234.24	$ 246.45	$ 229.75	$ 233.91	$ 2 693 456 862.00
12-Nov-21	$ 228.50	$ 238.70	$ 221.25	$ 233.72	$ 3 022 054 714.00
13-Nov-21	$ 241.83	$ 241.83	$ 225.08	$ 228.60	$ 2 322 796 265.00
14-Nov-21	$ 238.43	$ 242.04	$ 230.69	$ 241.86	$ 1 705 211 600.00
15-Nov-21	$ 237.55	$ 245.98	$ 235.10	$ 238.73	$ 2 414 551 003.00
16-Nov-21	$ 219.24	$ 238.50	$ 215.44	$ 238.50	$ 3 557 977 024.00
17-Nov-21	$ 218.72	$ 222.03	$ 210.03	$ 219.30	$ 2 982 505 239.00
18-Nov-21	$ 195.49	$ 222.88	$ 187.67	$ 218.88	$ 3 911 214 658.00
19-Nov-21	$ 215.28	$ 219.37	$ 189.75	$ 195.07	$ 3 431 624 914.00
20-Nov-21	$ 218.02	$ 221.45	$ 206.29	$ 215.41	$ 2 003 638 941.00
21-Nov-21	$ 231.28	$ 235.23	$ 210.81	$ 217.78	$ 2 636 480 460.00
22-Nov-21	$ 215.74	$ 231.90	$ 212.03	$ 230.99	$ 3 254 258 844.00
23-Nov-21	$ 221.84	$ 226.06	$ 211.31	$ 215.84	$ 2 328 763 768.00
24-Nov-21	$ 214.92	$ 222.46	$ 200.50	$ 221.86	$ 2 293 934 142.00
25-Nov-21	$ 206.25	$ 216.40	$ 202.32	$ 205.89	$ 2 586 718 627.00
26-Nov-21	$ 191.51	$ 210.50	$ 184.33	$ 210.05	$ 3 380 122 748.00
27-Nov-21	$ 193.10	$ 199.36	$ 191.04	$ 192.28	$ 1 443 178 833.00

Terra Luna

Statistics	**Value**
Accrual in Units	3 360.00
Accrual Date	01-Aug-19
Accrual Price	$ 1.28
Tax Rate	35.00%
Investment Rate	0.00%

Period	01-Aug-19	31-Aug-19	30-Sep-19	31-Oct-19	30-Nov-19	31-Dec-19	31-Jan-20	29-Feb-20	31-Mar-20
Monthly Average Price	$ 1.28	$ 1.23	$ 1.03	$ 0.61	$ 0.36	$ 0.27	$ 0.20	$ 0.24	$ 0.17

<u>Receipts-based Asset Model (Units)</u>

	01-Aug-19	31-Aug-19	30-Sep-19	31-Oct-19	30-Nov-19	31-Dec-19	31-Jan-20	29-Feb-20	31-Mar-20
Opening Balance	-	546.00	663.00	780.00	897.00	1 014.00	1 131.00	1 248.00	1 365.00
Settlement of Unit Accrual	840.00	180.00	180.00	180.00	180.00	180.00	180.00	180.00	180.00
Investment Return - *in specie*	-	-	-	-	-	-	-	-	-
Tax Transactions	- 294.00	- 63.00	- 63.00	- 63.00	- 63.00	- 63.00	- 63.00	- 63.00	- 63.00
Closing Balance	546.00	663.00	780.00	897.00	1 014.00	1 131.00	1 248.00	1 365.00	1 482.00
Closing Market Value	**$ 698.88**	**$ 816.35**	**$ 801.41**	**$ 545.73**	**$ 361.14**	**$ 305.88**	**$ 253.69**	**$ 322.29**	**$ 256.31**

<u>Tax Collection (Nominal USD)</u>

	01-Aug-19	31-Aug-19	30-Sep-19	31-Oct-19	30-Nov-19	31-Dec-19	31-Jan-20	29-Feb-20	31-Mar-20
Opportunity Cost of Treatment	$ -1 505.28	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Revenue Collected	$ 376.32	$ 77.57	$ 64.73	$ 38.33	$ 22.44	$ 17.04	$ 12.81	$ 14.87	$ 10.90
Net Revenue	**$ -1 128.96**	**$ 77.57**	**$ 64.73**	**$ 38.33**	**$ 22.44**	**$ 17.04**	**$ 12.81**	**$ 14.87**	**$ 10.90**

IRR

-14%

Total Nominal Revenue Collected:

$ 740.36

<u>Accrual-based Asset Model (Units)</u>

	01-Aug-19	31-Aug-19	30-Sep-19	31-Oct-19	30-Nov-19	31-Dec-19	31-Jan-20	29-Feb-20	31-Mar-20
Opening Balance	-	- 336.00	- 156.00	24.00	204.00	384.00	564.00	744.00	924.00
Settlement of Unit Accrual	840.00	180.00	180.00	180.00	180.00	180.00	180.00	180.00	180.00
Investment Return - *in specie*	-	-	-	-	-	-	-	-	-
Tax Transactions	- 1 176.00	-	-	-	-	-	-	-	-
Closing Balance	- 336.00	- 156.00	24.00	204.00	384.00	564.00	744.00	924.00	1 104.00
Closing Market Value	$ -430.08	$ -192.08	$ 24.66	$ 124.11	$ 136.76	$ 152.53	$ 151.24	$ 218.17	$ 190.94

<u>Tax Collection (Nominal USD)</u>

	01-Aug-19	31-Aug-19	30-Sep-19	31-Oct-19	30-Nov-19	31-Dec-19	31-Jan-20	29-Feb-20	31-Mar-20
Opportunity Cost of Treatment	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Revenue Collected	$ 1 505.28	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Net Revenue	**$ 1 505.28**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**

<u>Total Nominal Revenue Collected:</u>

$ 1 505.28

Terra Luna

Period	30-Apr-20	31-May-20	30-Jun-20	31-Jul-20	31-Aug-20	30-Sep-20	31-Oct-20	30-Nov-20	31-Dec-20	31-Jan-21	28-Feb-21
Monthly Average Price	$ 0.19	$ 0.19	$ 0.21	$ 0.28	$ 0.47	$ 0.33	$ 0.31	$ 0.33	$ 0.51	$ 0.90	$ 5.22
Receipts-based Asset Model (Units)											
Opening Balance	1 482.00	1 599.00	1 716.00	1 833.00	1 950.00	2 067.00	2 184.00	2 301.00	2 418.00	2 535.00	2 652.00
Settlement of Unit Accrual	180.00	180.00	180.00	180.00	180.00	180.00	180.00	180.00	180.00	180.00	180.00
Investment Return - *in specie*	-	-	-	-	-	-	-	-	-	-	-
Tax Transactions	- 63.00	- 63.00	- 63.00	- 63.00	- 63.00	- 63.00	- 63.00	- 63.00	- 63.00	- 63.00	- 63.00
Closing Balance	1 599.00	1 716.00	1 833.00	1 950.00	2 067.00	2 184.00	2 301.00	2 418.00	2 535.00	2 652.00	2 769.00
Closing Market Value	**$ 301.07**	**$ 327.08**	**$ 385.78**	**$ 544.19**	**$ 971.50**	**$ 729.24**	**$ 718.18**	**$ 799.81**	**$ 1 293.01**	**$ 2 398.70**	**$ 14 462.09**
Tax Collection (Nominal USD)											
Opportunity Cost of Treatment	$ -	$ -	$ -	$ -	$ -	$ -	$ 1.00	$ 2.00	$ 3.00	$ 4.00	$ 5.00
Revenue Collected	$ 11.86	$ 12.01	$ 13.26	$ 17.58	$ 29.61	$ 21.04	$ 19.66	$ 20.84	$ 32.13	$ 56.98	$ 329.04
Net Revenue	**$ 11.86**	**$ 12.01**	**$ 13.26**	**$ 17.58**	**$ 29.61**	**$ 21.04**	**$ 20.66**	**$ 22.84**	**$ 35.13**	**$ 60.98**	**$ 334.04**

IRR

-14%

Total Nominal Revenue Collected:

$ 740.36

Accrual-based Asset Model (Units)	30-Apr-20	31-May-20	30-Jun-20	31-Jul-20	31-Aug-20	30-Sep-20	31-Oct-20	30-Nov-20	31-Dec-20	31-Jan-21	28-Feb-21
Opening Balance	1 104.00	1 284.00	1 464.00	1 644.00	1 824.00	2 004.00	2 184.00	2 364.00	2 544.00	2 724.00	2 904.00
Settlement of Unit Accrual	180.00	180.00	180.00	180.00	180.00	180.00	180.00	180.00	180.00	180.00	180.00
Investment Return - *in specie*	-	-	-	-	-	-	-	-	-	-	-
Tax Transactions	-	-	-	-	-	-	-	-	-	-	-
Closing Balance	1 284.00	1 464.00	1 644.00	1 824.00	2 004.00	2 184.00	2 364.00	2 544.00	2 724.00	2 904.00	3 084.00
Closing Market Value	$ 241.76	$ 279.05	$ 346.00	$ 509.03	$ 941.89	$ 729.24	$ 737.84	$ 841.49	$ 1 389.41	$ 2 626.63	$ 16 107.29
Tax Collection (Nominal USD)											
Opportunity Cost of Treatment	$ -	$ -	$ -	$ -	$ -	$ -	$ 1.00	$ 2.00	$ 3.00	$ 4.00	$ 5.00
Revenue Collected	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Net Revenue	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ 1.00**	**$ 2.00**	**$ 3.00**	**$ 4.00**	**$ 5.00**

Total Nominal Revenue Collected:

$ 1 505.28

Terra Luna

Period	31-Mar-21	30-Apr-21	31-May-21	30-Jun-21	31-Jul-21	31-Aug-21	30-Sep-21	31-Oct-21
Monthly Average Price	$ 14.82	$ 15.97	$ 12.36	$ 5.88	$ 7.56	$ 22.76	$ 34.36	$ 41.09
Receipts-based Asset Model (Units)								
Opening Balance	2 769.00	2 886.00	3 003.00	3 120.00	3 237.00	3 354.00	3 471.00	3 588.00
Settlement of Unit Accrual	180.00	180.00	180.00	180.00	180.00	180.00	180.00	180.00
Investment Return - *in specie*	-	-	-	-	-	-	-	-
Tax Transactions	- 63.00	- 63.00	- 63.00	- 63.00	- 63.00	- 63.00	- 63.00	- 63.00
Closing Balance	2 886.00	3 003.00	3 120.00	3 237.00	3 354.00	3 471.00	3 588.00	3 705.00
Closing Market Value	**$ 42 762.14**	**$ 47 954.91**	**$ 38 554.14**	**$ 19 040.03**	**$ 25 358.40**	**$ 79 004.44**	**$ 123 283.68**	**$ 152 253.99**
Tax Collection (Nominal USD)								
Opportunity Cost of Treatment	$ 6.00	$ 7.00	$ 8.00	$ 9.00	$ 10.00	$ 11.00	$ 12.00	$ 13.00
Revenue Collected	$ 933.48	$ 1 006.05	$ 778.50	$ 370.57	$ 476.32	$ 1 433.96	$ 2 164.68	$ 2 588.93
Net Revenue	**$ 939.48**	**$ 1 013.05**	**$ 786.50**	**$ 379.57**	**$ 486.32**	**$ 1 444.96**	**$ 2 176.68**	**$ 2 601.93**

IRR

-14%

Total Nominal Revenue Collected:

$ 740.36

Accrual-based Asset Model (Units)	31-Mar-21	30-Apr-21	31-May-21	30-Jun-21	31-Jul-21	31-Aug-21	30-Sep-21	31-Oct-21
Opening Balance	3 084.00	3 264.00	3 444.00	3 624.00	3 804.00	3 984.00	4 164.00	4 344.00
Settlement of Unit Accrual	180.00	180.00	180.00	180.00	180.00	180.00	180.00	180.00
Investment Return - *in specie*	-	-	-	-	-	-	-	-
Tax Transactions	-	-	-	-	-	-	-	-
Closing Balance	3 264.00	3 444.00	3 624.00	3 804.00	3 984.00	4 164.00	4 344.00	4 524.00
Closing Market Value	$ 48 363.00	$ 54 997.24	$ 44 782.12	$ 22 375.13	$ 30 121.61	$ 94 778.01	$ 149 259.84	$ 185 910.13
Tax Collection (Nominal USD)								
Opportunity Cost of Treatment	$ 6.00	$ 7.00	$ 8.00	$ 9.00	$ 10.00	$ 11.00	$ 12.00	$ 13.00
Revenue Collected	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Net Revenue	**$ 6.00**	**$ 7.00**	**$ 8.00**	**$ 9.00**	**$ 10.00**	**$ 11.00**	**$ 12.00**	**$ 13.00**

Total Nominal Revenue Collected:

$ 1 505.28


Price over Time (Days)
Spot Market PRice (Close)
$ 60.00
$ 50.00
$ 40.00
$ 30.00
$ 20.00
$ 10.00
$-
$- 10.00
$- 20.00
15-May-19
23-Aug-19
01-Dec-19
10-Mar-20
18-Jun-20
26-Sep-20
04-Jan-21
14-Apr-21
23-Jul-21
31-Oct-21
08-Feb-22
Date Continuum
y = 0.0375x - 1648.5
R² = 0.519
Market Price (Close)
Linear (Market Price (Close))

Date	Market Price (Close)	Open	High	Low
27-Nov-21	$ 43.89	$ 41.03	$ 44.33	$ 40.91
26-Nov-21	$ 40.77	$ 43.54	$ 45.06	$ 38.10
25-Nov-21	$ 40.05	$ 38.58	$ 43.77	$ 38.40
24-Nov-21	$ 41.36	$ 42.70	$ 43.06	$ 37.92
23-Nov-21	$ 42.69	$ 41.11	$ 43.38	$ 39.94
22-Nov-21	$ 41.07	$ 43.55	$ 43.90	$ 40.45
21-Nov-21	$ 43.60	$ 45.18	$ 45.37	$ 42.65
20-Nov-21	$ 45.12	$ 42.43	$ 45.44	$ 41.47
19-Nov-21	$ 42.42	$ 40.21	$ 43.49	$ 39.65
18-Nov-21	$ 40.28	$ 43.24	$ 45.10	$ 38.95
17-Nov-21	$ 43.15	$ 43.26	$ 43.86	$ 40.54
16-Nov-21	$ 43.25	$ 48.18	$ 48.18	$ 41.31
15-Nov-21	$ 48.05	$ 51.08	$ 51.54	$ 48.04
14-Nov-21	$ 51.07	$ 52.08	$ 52.47	$ 49.11
13-Nov-21	$ 52.17	$ 49.56	$ 53.38	$ 48.46
12-Nov-21	$ 49.56	$ 50.47	$ 50.64	$ 47.04
11-Nov-21	$ 50.60	$ 48.79	$ 51.90	$ 47.60
10-Nov-21	$ 48.79	$ 50.23	$ 54.68	$ 44.54
09-Nov-21	$ 50.24	$ 54.12	$ 54.13	$ 50.06
08-Nov-21	$ 54.16	$ 50.58	$ 54.77	$ 49.73
07-Nov-21	$ 50.61	$ 51.25	$ 52.63	$ 50.48
06-Nov-21	$ 51.18	$ 49.97	$ 51.18	$ 47.54
05-Nov-21	$ 49.97	$ 51.96	$ 52.99	$ 48.87
04-Nov-21	$ 51.92	$ 47.99	$ 52.17	$ 46.16
03-Nov-21	$ 48.06	$ 44.77	$ 49.71	$ 43.91
02-Nov-21	$ 44.76	$ 44.09	$ 45.49	$ 42.79
01-Nov-21	$ 44.06	$ 42.88	$ 44.35	$ 41.59
31-Oct-21	$ 42.89	$ 43.26	$ 43.64	$ 41.27
30-Oct-21	$ 43.34	$ 45.62	$ 45.71	$ 42.54
29-Oct-21	$ 45.58	$ 43.01	$ 45.96	$ 42.22
28-Oct-21	$ 42.96	$ 39.90	$ 43.68	$ 39.65
27-Oct-21	$ 39.87	$ 43.85	$ 44.88	$ 38.54
26-Oct-21	$ 43.87	$ 42.76	$ 46.91	$ 42.76
25-Oct-21	$ 42.79	$ 41.41	$ 43.77	$ 41.23
24-Oct-21	$ 41.48	$ 43.19	$ 43.56	$ 39.95
23-Oct-21	$ 43.19	$ 43.70	$ 44.04	$ 41.58
22-Oct-21	$ 43.62	$ 40.95	$ 45.48	$ 40.91
21-Oct-21	$ 40.91	$ 42.59	$ 43.62	$ 39.31
20-Oct-21	$ 42.55	$ 37.71	$ 43.96	$ 37.71
19-Oct-21	$ 37.73	$ 35.81	$ 38.36	$ 35.59
18-Oct-21	$ 35.82	$ 36.16	$ 37.32	$ 35.34
17-Oct-21	$ 36.19	$ 36.60	$ 37.39	$ 35.04
16-Oct-21	$ 36.59	$ 36.97	$ 38.40	$ 36.26
15-Oct-21	$ 36.95	$ 37.16	$ 37.96	$ 35.81
14-Oct-21	$ 37.15	$ 36.59	$ 39.73	$ 36.14
13-Oct-21	$ 36.62	$ 37.61	$ 38.88	$ 35.23
12-Oct-21	$ 37.60	$ 39.20	$ 39.20	$ 35.33
11-Oct-21	$ 39.21	$ 39.27	$ 40.73	$ 37.57
10-Oct-21	$ 39.37	$ 42.49	$ 43.21	$ 39.09
09-Oct-21	$ 42.47	$ 43.26	$ 44.38	$ 42.09
08-Oct-21	$ 43.29	$ 46.51	$ 48.53	$ 43.11
07-Oct-21	$ 46.54	$ 42.04	$ 47.41	$ 40.89
06-Oct-21	$ 41.95	$ 44.69	$ 44.79	$ 40.46
05-Oct-21	$ 44.71	$ 46.79	$ 47.18	$ 43.65
04-Oct-21	$ 46.72	$ 42.74	$ 49.45	$ 41.61
03-Oct-21	$ 42.74	$ 41.52	$ 46.09	$ 41.52
02-Oct-21	$ 41.48	$ 37.75	$ 43.51	$ 37.11
01-Oct-21	$ 37.74	$ 38.83	$ 39.98	$ 36.56

Date	Market Price (Close)	Open	High	Low
30-Sep-21	$ 38.60	$ 34.18	$ 38.67	$ 33.85
29-Sep-21	$ 34.19	$ 33.19	$ 36.25	$ 33.08
28-Sep-21	$ 33.16	$ 36.80	$ 37.17	$ 33.03
27-Sep-21	$ 36.91	$ 34.78	$ 39.63	$ 33.93
26-Sep-21	$ 34.64	$ 37.92	$ 37.94	$ 33.47
25-Sep-21	$ 37.91	$ 40.19	$ 40.84	$ 36.25
24-Sep-21	$ 40.20	$ 36.19	$ 41.19	$ 32.79
23-Sep-21	$ 36.20	$ 33.19	$ 36.81	$ 32.59
22-Sep-21	$ 33.27	$ 25.12	$ 33.57	$ 25.12
21-Sep-21	$ 25.15	$ 27.46	$ 29.36	$ 24.02
20-Sep-21	$ 27.22	$ 32.95	$ 33.01	$ 26.40
19-Sep-21	$ 32.96	$ 34.76	$ 36.35	$ 32.08
18-Sep-21	$ 34.78	$ 34.42	$ 36.30	$ 34.12
17-Sep-21	$ 34.43	$ 37.46	$ 39.15	$ 34.11
16-Sep-21	$ 37.52	$ 36.79	$ 39.72	$ 35.27
15-Sep-21	$ 36.69	$ 35.68	$ 37.63	$ 34.95
14-Sep-21	$ 35.67	$ 37.22	$ 37.91	$ 34.68
13-Sep-21	$ 37.19	$ 39.25	$ 39.57	$ 33.91
12-Sep-21	$ 39.23	$ 39.25	$ 43.47	$ 37.90
11-Sep-21	$ 39.09	$ 43.34	$ 44.34	$ 37.66
10-Sep-21	$ 43.54	$ 30.58	$ 43.90	$ 30.58
09-Sep-21	$ 30.51	$ 29.96	$ 31.45	$ 28.38
08-Sep-21	$ 29.43	$ 27.83	$ 31.87	$ 25.05
07-Sep-21	$ 27.79	$ 32.32	$ 32.59	$ 23.07
06-Sep-21	$ 32.35	$ 34.48	$ 35.07	$ 30.59
05-Sep-21	$ 34.49	$ 31.40	$ 35.30	$ 31.12
04-Sep-21	$ 31.41	$ 31.74	$ 32.45	$ 31.01
03-Sep-21	$ 31.74	$ 32.86	$ 33.83	$ 31.14
02-Sep-21	$ 32.87	$ 31.77	$ 33.87	$ 31.39
01-Sep-21	$ 31.66	$ 31.55	$ 32.51	$ 30.58
31-Aug-21	$ 31.56	$ 33.35	$ 34.46	$ 30.64
30-Aug-21	$ 33.47	$ 33.32	$ 35.92	$ 32.23
29-Aug-21	$ 33.33	$ 35.04	$ 36.76	$ 33.26
28-Aug-21	$ 34.96	$ 32.68	$ 35.83	$ 30.49
27-Aug-21	$ 32.66	$ 27.00	$ 32.88	$ 26.43
26-Aug-21	$ 27.01	$ 30.07	$ 30.07	$ 26.20
25-Aug-21	$ 29.99	$ 29.67	$ 31.20	$ 28.49
24-Aug-21	$ 29.67	$ 30.00	$ 34.51	$ 29.67
23-Aug-21	$ 29.92	$ 28.02	$ 30.14	$ 27.24
22-Aug-21	$ 28.03	$ 27.56	$ 28.84	$ 26.42
21-Aug-21	$ 27.55	$ 30.64	$ 30.64	$ 27.16
20-Aug-21	$ 30.65	$ 29.42	$ 31.38	$ 28.73
19-Aug-21	$ 29.40	$ 30.73	$ 33.39	$ 28.85
18-Aug-21	$ 30.84	$ 25.32	$ 31.77	$ 22.59
17-Aug-21	$ 25.23	$ 21.92	$ 26.81	$ 20.88
16-Aug-21	$ 22.00	$ 19.27	$ 23.83	$ 19.19
15-Aug-21	$ 19.28	$ 17.40	$ 19.63	$ 16.54
14-Aug-21	$ 17.40	$ 17.79	$ 17.85	$ 16.90
13-Aug-21	$ 17.80	$ 16.60	$ 17.82	$ 16.58
12-Aug-21	$ 16.57	$ 17.03	$ 17.17	$ 15.84
11-Aug-21	$ 17.02	$ 16.71	$ 18.01	$ 16.52
10-Aug-21	$ 16.75	$ 13.94	$ 16.91	$ 13.74
09-Aug-21	$ 13.97	$ 13.42	$ 14.35	$ 12.98
08-Aug-21	$ 13.41	$ 14.62	$ 14.73	$ 13.14
07-Aug-21	$ 14.59	$ 14.52	$ 15.65	$ 13.96
06-Aug-21	$ 14.50	$ 14.56	$ 15.29	$ 14.15
05-Aug-21	$ 14.55	$ 14.52	$ 15.10	$ 13.74
04-Aug-21	$ 14.51	$ 14.77	$ 15.56	$ 13.56

Date	Market Price (Close)	Open	High	Low
03-Aug-21	$ 14.72	$ 12.33	$ 14.85	$ 11.66
02-Aug-21	$ 12.33	$ 11.98	$ 12.47	$ 11.19
01-Aug-21	$ 11.93	$ 10.73	$ 12.15	$ 10.56
31-Jul-21	$ 10.76	$ 10.83	$ 11.29	$ 10.55
30-Jul-21	$ 10.85	$ 11.04	$ 11.12	$ 10.03
29-Jul-21	$ 11.04	$ 10.96	$ 11.75	$ 10.66
28-Jul-21	$ 10.97	$ 9.53	$ 11.12	$ 9.16
27-Jul-21	$ 9.51	$ 8.51	$ 9.59	$ 8.07
26-Jul-21	$ 8.52	$ 8.25	$ 9.67	$ 8.20
25-Jul-21	$ 8.25	$ 8.47	$ 8.53	$ 7.79
24-Jul-21	$ 8.49	$ 7.89	$ 8.50	$ 7.55
23-Jul-21	$ 7.93	$ 7.34	$ 7.93	$ 6.92
22-Jul-21	$ 7.35	$ 6.60	$ 7.50	$ 6.59
21-Jul-21	$ 6.61	$ 5.87	$ 6.76	$ 5.70
20-Jul-21	$ 5.87	$ 5.97	$ 6.06	$ 5.60
19-Jul-21	$ 5.95	$ 6.49	$ 6.54	$ 5.93
18-Jul-21	$ 6.50	$ 6.49	$ 6.88	$ 6.48
17-Jul-21	$ 6.48	$ 6.56	$ 6.78	$ 6.27
16-Jul-21	$ 6.58	$ 6.67	$ 6.99	$ 6.22
15-Jul-21	$ 6.61	$ 6.93	$ 7.22	$ 6.49
14-Jul-21	$ 6.92	$ 7.12	$ 7.44	$ 6.60
13-Jul-21	$ 7.10	$ 7.89	$ 8.14	$ 6.98
12-Jul-21	$ 7.89	$ 8.44	$ 8.54	$ 7.57
11-Jul-21	$ 8.42	$ 7.89	$ 8.72	$ 7.89
10-Jul-21	$ 7.90	$ 8.10	$ 8.57	$ 7.51
09-Jul-21	$ 8.09	$ 6.71	$ 8.40	$ 6.44
08-Jul-21	$ 6.70	$ 7.10	$ 7.20	$ 6.43
07-Jul-21	$ 7.09	$ 6.53	$ 7.69	$ 6.46
06-Jul-21	$ 6.53	$ 6.03	$ 6.56	$ 5.99
05-Jul-21	$ 6.04	$ 5.97	$ 6.19	$ 5.62
04-Jul-21	$ 5.97	$ 5.81	$ 6.22	$ 5.66
03-Jul-21	$ 5.81	$ 5.71	$ 5.97	$ 5.62
02-Jul-21	$ 5.73	$ 5.90	$ 6.09	$ 5.51
01-Jul-21	$ 5.92	$ 6.56	$ 6.56	$ 5.73
30-Jun-21	$ 6.52	$ 6.02	$ 6.66	$ 5.69
29-Jun-21	$ 5.99	$ 5.53	$ 6.32	$ 5.41
28-Jun-21	$ 5.53	$ 5.41	$ 5.67	$ 5.21
27-Jun-21	$ 5.40	$ 5.21	$ 5.44	$ 5.08
26-Jun-21	$ 5.20	$ 5.06	$ 5.29	$ 4.90
25-Jun-21	$ 5.06	$ 5.48	$ 5.59	$ 4.86
24-Jun-21	$ 5.45	$ 5.19	$ 5.59	$ 5.01
23-Jun-21	$ 5.25	$ 4.73	$ 5.76	$ 4.62
22-Jun-21	$ 4.71	$ 4.84	$ 5.47	$ 4.55
21-Jun-21	$ 4.84	$ 5.87	$ 5.91	$ 4.78
20-Jun-21	$ 5.89	$ 5.74	$ 5.90	$ 5.38
19-Jun-21	$ 5.76	$ 5.96	$ 6.05	$ 5.67
18-Jun-21	$ 5.92	$ 6.16	$ 6.56	$ 5.70
17-Jun-21	$ 6.15	$ 6.17	$ 6.42	$ 6.05
16-Jun-21	$ 6.17	$ 6.58	$ 6.58	$ 5.97
15-Jun-21	$ 6.59	$ 6.33	$ 6.86	$ 6.14
14-Jun-21	$ 6.04	$ 6.05	$ 6.33	$ 5.83
13-Jun-21	$ 6.07	$ 5.50	$ 6.13	$ 5.35
12-Jun-21	$ 5.50	$ 5.56	$ 5.87	$ 5.17
11-Jun-21	$ 5.55	$ 6.16	$ 6.35	$ 5.46
10-Jun-21	$ 6.14	$ 6.02	$ 6.48	$ 5.58
09-Jun-21	$ 6.02	$ 5.60	$ 6.04	$ 5.26
08-Jun-21	$ 5.62	$ 5.60	$ 5.77	$ 4.91
07-Jun-21	$ 5.58	$ 6.26	$ 6.66	$ 5.52

Date	Market Price (Close)	Open	High	Low
06-Jun-21	$ 6.25	$ 6.04	$ 6.33	$ 6.04
05-Jun-21	$ 6.06	$ 6.39	$ 6.91	$ 5.80
04-Jun-21	$ 6.39	$ 7.68	$ 7.69	$ 5.98
03-Jun-21	$ 7.67	$ 6.84	$ 7.87	$ 6.69
02-Jun-21	$ 6.84	$ 6.30	$ 7.23	$ 6.08
01-Jun-21	$ 6.30	$ 6.55	$ 6.67	$ 6.10
31-May-21	$ 6.56	$ 6.20	$ 6.60	$ 5.61
30-May-21	$ 6.22	$ 5.50	$ 6.59	$ 5.12
29-May-21	$ 5.49	$ 5.90	$ 6.14	$ 5.11
28-May-21	$ 5.90	$ 6.70	$ 6.86	$ 5.40
27-May-21	$ 6.65	$ 7.35	$ 7.35	$ 6.43
26-May-21	$ 7.33	$ 6.65	$ 7.96	$ 6.41
25-May-21	$ 6.64	$ 6.62	$ 7.02	$ 5.19
24-May-21	$ 6.59	$ 4.09	$ 7.30	$ 4.09
23-May-21	$ 4.11	$ 6.61	$ 7.13	$ 3.94
22-May-21	$ 6.58	$ 8.28	$ 8.33	$ 6.54
21-May-21	$ 8.27	$ 10.37	$ 11.62	$ 7.18
20-May-21	$ 10.41	$ 9.51	$ 11.83	$ 8.13
19-May-21	$ 9.64	$ 15.68	$ 15.92	$ 9.28
18-May-21	$ 15.70	$ 14.95	$ 16.19	$ 14.71
17-May-21	$ 14.96	$ 16.17	$ 16.19	$ 14.70
16-May-21	$ 16.18	$ 15.20	$ 17.38	$ 15.18
15-May-21	$ 15.22	$ 16.40	$ 16.61	$ 15.19
14-May-21	$ 16.41	$ 15.90	$ 16.96	$ 15.19
13-May-21	$ 15.90	$ 14.63	$ 16.99	$ 13.76
12-May-21	$ 14.48	$ 16.31	$ 17.90	$ 14.48
11-May-21	$ 16.31	$ 15.84	$ 16.44	$ 15.25
10-May-21	$ 15.87	$ 16.99	$ 18.14	$ 15.58
09-May-21	$ 16.99	$ 16.98	$ 17.45	$ 16.70
08-May-21	$ 16.98	$ 16.55	$ 17.14	$ 16.51
07-May-21	$ 16.58	$ 16.77	$ 16.95	$ 16.44
06-May-21	$ 16.77	$ 17.02	$ 17.44	$ 16.35
05-May-21	$ 17.02	$ 16.29	$ 17.51	$ 16.26
04-May-21	$ 16.34	$ 17.25	$ 17.45	$ 15.87
03-May-21	$ 17.28	$ 17.15	$ 19.18	$ 17.15
02-May-21	$ 17.15	$ 16.55	$ 17.57	$ 16.43
01-May-21	$ 16.54	$ 16.69	$ 16.81	$ 16.40
30-Apr-21	$ 16.69	$ 16.24	$ 16.94	$ 15.79
29-Apr-21	$ 16.24	$ 16.82	$ 16.94	$ 15.87
28-Apr-21	$ 16.82	$ 17.69	$ 17.88	$ 16.46
27-Apr-21	$ 17.72	$ 17.63	$ 19.58	$ 17.18
26-Apr-21	$ 17.62	$ 17.71	$ 18.05	$ 16.97
25-Apr-21	$ 17.66	$ 15.55	$ 18.92	$ 15.55
24-Apr-21	$ 15.57	$ 14.10	$ 16.50	$ 13.62
23-Apr-21	$ 14.08	$ 13.63	$ 14.29	$ 12.88
22-Apr-21	$ 13.65	$ 13.24	$ 15.57	$ 12.98
21-Apr-21	$ 13.28	$ 13.42	$ 14.43	$ 13.19
20-Apr-21	$ 13.43	$ 13.86	$ 13.86	$ 12.67
19-Apr-21	$ 13.91	$ 13.38	$ 16.31	$ 13.17
18-Apr-21	$ 13.40	$ 15.36	$ 15.40	$ 11.87
17-Apr-21	$ 15.34	$ 15.78	$ 16.26	$ 15.23
16-Apr-21	$ 15.80	$ 16.88	$ 17.02	$ 15.56
15-Apr-21	$ 16.89	$ 15.29	$ 17.46	$ 15.03
14-Apr-21	$ 15.30	$ 15.60	$ 16.46	$ 15.11
13-Apr-21	$ 15.62	$ 14.62	$ 16.89	$ 14.62
12-Apr-21	$ 14.64	$ 15.14	$ 15.21	$ 14.27
11-Apr-21	$ 15.14	$ 15.49	$ 15.56	$ 15.00
10-Apr-21	$ 15.51	$ 15.68	$ 15.96	$ 14.77

Date	Market Price (Close)	Open	High	Low
09-Apr-21	$ 15.68	$ 15.75	$ 17.00	$ 15.55
08-Apr-21	$ 15.75	$ 15.46	$ 16.11	$ 15.23
07-Apr-21	$ 15.46	$ 16.74	$ 16.78	$ 14.83
06-Apr-21	$ 16.73	$ 17.55	$ 17.59	$ 16.48
05-Apr-21	$ 17.56	$ 18.35	$ 18.62	$ 17.24
04-Apr-21	$ 18.35	$ 18.14	$ 18.72	$ 18.05
03-Apr-21	$ 18.14	$ 18.57	$ 18.89	$ 18.11
02-Apr-21	$ 18.57	$ 18.50	$ 19.19	$ 18.43
01-Apr-21	$ 18.52	$ 18.70	$ 19.15	$ 18.14
31-Mar-21	$ 18.70	$ 18.67	$ 19.55	$ 18.05
30-Mar-21	$ 18.67	$ 18.90	$ 19.21	$ 18.24
29-Mar-21	$ 18.90	$ 18.57	$ 19.50	$ 18.25
28-Mar-21	$ 18.59	$ 18.72	$ 19.27	$ 18.09
27-Mar-21	$ 18.75	$ 18.46	$ 19.24	$ 18.07
26-Mar-21	$ 18.53	$ 16.46	$ 19.00	$ 16.45
25-Mar-21	$ 16.45	$ 16.64	$ 17.22	$ 16.06
24-Mar-21	$ 16.69	$ 17.03	$ 18.78	$ 15.95
23-Mar-21	$ 17.05	$ 19.42	$ 19.80	$ 16.78
22-Mar-21	$ 19.43	$ 21.97	$ 22.04	$ 19.24
21-Mar-21	$ 21.98	$ 20.90	$ 22.33	$ 20.84
20-Mar-21	$ 20.89	$ 19.95	$ 21.40	$ 19.73
19-Mar-21	$ 20.01	$ 18.98	$ 21.88	$ 18.61
18-Mar-21	$ 19.01	$ 18.53	$ 19.25	$ 17.73
17-Mar-21	$ 18.59	$ 19.91	$ 19.91	$ 17.23
16-Mar-21	$ 19.88	$ 16.33	$ 20.74	$ 16.13
15-Mar-21	$ 16.34	$ 15.84	$ 16.68	$ 14.63
14-Mar-21	$ 15.87	$ 14.59	$ 16.68	$ 13.89
13-Mar-21	$ 14.59	$ 14.16	$ 14.82	$ 12.72
12-Mar-21	$ 14.16	$ 10.82	$ 14.34	$ 10.60
11-Mar-21	$ 10.82	$ 11.12	$ 11.37	$ 10.43
10-Mar-21	$ 11.15	$ 11.67	$ 11.75	$ 10.90
09-Mar-21	$ 11.71	$ 9.67	$ 12.06	$ 9.61
08-Mar-21	$ 9.64	$ 8.25	$ 9.77	$ 8.10
07-Mar-21	$ 8.27	$ 8.25	$ 8.30	$ 7.79
06-Mar-21	$ 8.24	$ 8.48	$ 8.94	$ 8.11
05-Mar-21	$ 8.49	$ 7.47	$ 8.76	$ 7.00
04-Mar-21	$ 7.50	$ 7.21	$ 8.13	$ 7.11
03-Mar-21	$ 7.22	$ 6.47	$ 8.20	$ 6.44
02-Mar-21	$ 6.46	$ 6.75	$ 6.78	$ 6.23
01-Mar-21	$ 6.75	$ 5.36	$ 6.77	$ 5.35
28-Feb-21	$ 5.35	$ 5.92	$ 6.02	$ 5.00
27-Feb-21	$ 5.92	$ 5.90	$ 6.37	$ 5.77
26-Feb-21	$ 5.90	$ 5.99	$ 6.40	$ 5.59
25-Feb-21	$ 5.96	$ 6.68	$ 7.21	$ 5.96
24-Feb-21	$ 6.69	$ 6.73	$ 7.66	$ 6.42
23-Feb-21	$ 6.71	$ 7.06	$ 7.11	$ 5.57
22-Feb-21	$ 7.07	$ 6.12	$ 8.41	$ 5.97
21-Feb-21	$ 6.12	$ 5.95	$ 6.36	$ 5.81
20-Feb-21	$ 5.96	$ 6.31	$ 6.74	$ 5.73
19-Feb-21	$ 6.32	$ 6.70	$ 6.88	$ 6.20
18-Feb-21	$ 6.71	$ 7.29	$ 7.52	$ 6.46
17-Feb-21	$ 7.30	$ 6.52	$ 7.44	$ 5.83
16-Feb-21	$ 6.51	$ 5.45	$ 6.71	$ 5.30
15-Feb-21	$ 5.45	$ 5.64	$ 5.85	$ 4.97
14-Feb-21	$ 5.65	$ 5.58	$ 6.15	$ 5.36
13-Feb-21	$ 5.59	$ 5.72	$ 5.98	$ 5.39
12-Feb-21	$ 5.73	$ 5.47	$ 6.13	$ 5.41
11-Feb-21	$ 5.48	$ 6.09	$ 6.49	$ 5.48

Date	Market Price (Close)	Open	High	Low
10-Feb-21	$ 6.12	$ 6.43	$ 6.96	$ 5.78
09-Feb-21	$ 6.44	$ 5.75	$ 7.36	$ 4.84
08-Feb-21	$ 5.79	$ 3.07	$ 6.08	$ 3.07
07-Feb-21	$ 3.05	$ 2.68	$ 3.14	$ 2.48
06-Feb-21	$ 2.68	$ 2.87	$ 2.96	$ 2.63
05-Feb-21	$ 2.87	$ 2.66	$ 3.01	$ 2.66
04-Feb-21	$ 2.64	$ 2.11	$ 2.85	$ 1.98
03-Feb-21	$ 2.10	$ 2.35	$ 2.49	$ 2.01
02-Feb-21	$ 2.34	$ 1.80	$ 2.34	$ 1.80
01-Feb-21	$ 1.79	$ 1.46	$ 1.90	$ 1.42
31-Jan-21	$ 1.46	$ 1.43	$ 1.53	$ 1.37
30-Jan-21	$ 1.43	$ 1.47	$ 1.57	$ 1.40
29-Jan-21	$ 1.48	$ 1.47	$ 1.70	$ 1.45
28-Jan-21	$ 1.45	$ 1.12	$ 1.57	$ 1.11
27-Jan-21	$ 1.12	$ 1.27	$ 1.28	$ 1.12
26-Jan-21	$ 1.27	$ 0.87	$ 1.35	$ 0.87
25-Jan-21	$ 0.87	$ 0.91	$ 0.94	$ 0.87
24-Jan-21	$ 0.91	$ 0.90	$ 0.92	$ 0.86
23-Jan-21	$ 0.90	$ 0.81	$ 0.90	$ 0.81
22-Jan-21	$ 0.81	$ 0.80	$ 0.86	$ 0.77
21-Jan-21	$ 0.80	$ 0.90	$ 0.91	$ 0.80
20-Jan-21	$ 0.90	$ 0.91	$ 0.94	$ 0.87
19-Jan-21	$ 0.91	$ 0.80	$ 1.00	$ 0.79
18-Jan-21	$ 0.80	$ 0.81	$ 0.82	$ 0.79
17-Jan-21	$ 0.81	$ 0.76	$ 0.83	$ 0.75
16-Jan-21	$ 0.76	$ 0.79	$ 0.81	$ 0.76
15-Jan-21	$ 0.79	$ 0.83	$ 0.85	$ 0.76
14-Jan-21	$ 0.83	$ 0.82	$ 0.90	$ 0.80
13-Jan-21	$ 0.82	$ 0.75	$ 0.85	$ 0.72
12-Jan-21	$ 0.75	$ 0.74	$ 0.84	$ 0.71
11-Jan-21	$ 0.74	$ 0.85	$ 0.85	$ 0.70
10-Jan-21	$ 0.85	$ 0.82	$ 0.89	$ 0.82
09-Jan-21	$ 0.82	$ 0.85	$ 0.85	$ 0.82
08-Jan-21	$ 0.85	$ 0.86	$ 0.90	$ 0.83
07-Jan-21	$ 0.86	$ 0.72	$ 0.95	$ 0.71
06-Jan-21	$ 0.72	$ 0.72	$ 0.72	$ 0.70
05-Jan-21	$ 0.72	$ 0.67	$ 0.72	$ 0.65
04-Jan-21	$ 0.67	$ 0.66	$ 0.72	$ 0.64
03-Jan-21	$ 0.66	$ 0.63	$ 0.68	$ 0.63
02-Jan-21	$ 0.63	$ 0.65	$ 0.65	$ 0.62
01-Jan-21	$ 0.65	$ 0.65	$ 0.67	$ 0.63
31-Dec-20	$ 0.65	$ 0.67	$ 0.68	$ 0.63
30-Dec-20	$ 0.67	$ 0.65	$ 0.70	$ 0.64
29-Dec-20	$ 0.65	$ 0.62	$ 0.68	$ 0.61
28-Dec-20	$ 0.62	$ 0.55	$ 0.65	$ 0.55
27-Dec-20	$ 0.55	$ 0.54	$ 0.57	$ 0.53
26-Dec-20	$ 0.54	$ 0.54	$ 0.57	$ 0.54
25-Dec-20	$ 0.54	$ 0.52	$ 0.56	$ 0.52
24-Dec-20	$ 0.52	$ 0.46	$ 0.54	$ 0.45
23-Dec-20	$ 0.46	$ 0.51	$ 0.51	$ 0.45
22-Dec-20	$ 0.51	$ 0.47	$ 0.51	$ 0.46
21-Dec-20	$ 0.47	$ 0.49	$ 0.52	$ 0.45
20-Dec-20	$ 0.49	$ 0.54	$ 0.54	$ 0.48
19-Dec-20	$ 0.54	$ 0.53	$ 0.54	$ 0.53
18-Dec-20	$ 0.53	$ 0.48	$ 0.53	$ 0.48
17-Dec-20	$ 0.48	$ 0.50	$ 0.53	$ 0.48
16-Dec-20	$ 0.50	$ 0.48	$ 0.53	$ 0.48
15-Dec-20	$ 0.48	$ 0.47	$ 0.48	$ 0.47

Date	Market Price (Close)	Open	High	Low
14-Dec-20	$ 0.47	$ 0.48	$ 0.48	$ 0.47
13-Dec-20	$ 0.48	$ 0.48	$ 0.48	$ 0.48
12-Dec-20	$ 0.48	$ 0.46	$ 0.49	$ 0.46
11-Dec-20	$ 0.46	$ 0.48	$ 0.49	$ 0.46
10-Dec-20	$ 0.48	$ 0.49	$ 0.50	$ 0.48
09-Dec-20	$ 0.49	$ 0.47	$ 0.52	$ 0.47
08-Dec-20	$ 0.47	$ 0.51	$ 0.53	$ 0.47
07-Dec-20	$ 0.51	$ 0.50	$ 0.51	$ 0.49
06-Dec-20	$ 0.50	$ 0.51	$ 0.51	$ 0.49
05-Dec-20	$ 0.51	$ 0.45	$ 0.51	$ 0.45
04-Dec-20	$ 0.45	$ 0.50	$ 0.51	$ 0.45
03-Dec-20	$ 0.50	$ 0.41	$ 0.50	$ 0.41
02-Dec-20	$ 0.41	$ 0.39	$ 0.41	$ 0.38
01-Dec-20	$ 0.39	$ 0.40	$ 0.43	$ 0.38
30-Nov-20	$ 0.40	$ 0.38	$ 0.42	$ 0.38
29-Nov-20	$ 0.38	$ 0.39	$ 0.39	$ 0.38
28-Nov-20	$ 0.39	$ 0.38	$ 0.39	$ 0.38
27-Nov-20	$ 0.38	$ 0.35	$ 0.41	$ 0.35
26-Nov-20	$ 0.35	$ 0.41	$ 0.41	$ 0.34
25-Nov-20	$ 0.41	$ 0.41	$ 0.43	$ 0.39
24-Nov-20	$ 0.41	$ 0.38	$ 0.42	$ 0.37
23-Nov-20	$ 0.38	$ 0.35	$ 0.40	$ 0.34
22-Nov-20	$ 0.35	$ 0.35	$ 0.38	$ 0.33
21-Nov-20	$ 0.35	$ 0.34	$ 0.35	$ 0.34
20-Nov-20	$ 0.34	$ 0.32	$ 0.35	$ 0.32
19-Nov-20	$ 0.32	$ 0.32	$ 0.33	$ 0.31
18-Nov-20	$ 0.32	$ 0.31	$ 0.32	$ 0.31
17-Nov-20	$ 0.31	$ 0.31	$ 0.33	$ 0.31
16-Nov-20	$ 0.31	$ 0.31	$ 0.32	$ 0.29
15-Nov-20	$ 0.31	$ 0.31	$ 0.31	$ 0.30
14-Nov-20	$ 0.31	$ 0.32	$ 0.32	$ 0.30
13-Nov-20	$ 0.32	$ 0.32	$ 0.33	$ 0.31
12-Nov-20	$ 0.32	$ 0.32	$ 0.33	$ 0.31
11-Nov-20	$ 0.32	$ 0.31	$ 0.34	$ 0.31
10-Nov-20	$ 0.31	$ 0.30	$ 0.31	$ 0.29
09-Nov-20	$ 0.30	$ 0.30	$ 0.31	$ 0.30
08-Nov-20	$ 0.30	$ 0.29	$ 0.31	$ 0.29
07-Nov-20	$ 0.29	$ 0.30	$ 0.31	$ 0.29
06-Nov-20	$ 0.30	$ 0.29	$ 0.31	$ 0.29
05-Nov-20	$ 0.29	$ 0.28	$ 0.29	$ 0.28
04-Nov-20	$ 0.28	$ 0.29	$ 0.29	$ 0.28
03-Nov-20	$ 0.29	$ 0.29	$ 0.29	$ 0.28
02-Nov-20	$ 0.29	$ 0.30	$ 0.30	$ 0.29
01-Nov-20	$ 0.30	$ 0.30	$ 0.30	$ 0.30
31-Oct-20	$ 0.30	$ 0.30	$ 0.31	$ 0.30
30-Oct-20	$ 0.30	$ 0.30	$ 0.31	$ 0.30
29-Oct-20	$ 0.30	$ 0.31	$ 0.31	$ 0.30
28-Oct-20	$ 0.31	$ 0.31	$ 0.32	$ 0.30
27-Oct-20	$ 0.31	$ 0.30	$ 0.32	$ 0.30
26-Oct-20	$ 0.30	$ 0.31	$ 0.32	$ 0.30
25-Oct-20	$ 0.31	$ 0.31	$ 0.31	$ 0.31
24-Oct-20	$ 0.31	$ 0.32	$ 0.32	$ 0.31
23-Oct-20	$ 0.32	$ 0.31	$ 0.33	$ 0.31
22-Oct-20	$ 0.31	$ 0.31	$ 0.32	$ 0.31
21-Oct-20	$ 0.31	$ 0.31	$ 0.32	$ 0.31
20-Oct-20	$ 0.31	$ 0.32	$ 0.32	$ 0.31
19-Oct-20	$ 0.32	$ 0.31	$ 0.33	$ 0.31
18-Oct-20	$ 0.31	$ 0.32	$ 0.32	$ 0.31

Date	Market Price (Close)	Open	High	Low
17-Oct-20	$ 0.32	$ 0.32	$ 0.32	$ 0.31
16-Oct-20	$ 0.32	$ 0.32	$ 0.32	$ 0.31
15-Oct-20	$ 0.32	$ 0.32	$ 0.33	$ 0.32
14-Oct-20	$ 0.32	$ 0.32	$ 0.33	$ 0.32
13-Oct-20	$ 0.32	$ 0.33	$ 0.33	$ 0.31
12-Oct-20	$ 0.33	$ 0.32	$ 0.33	$ 0.31
11-Oct-20	$ 0.32	$ 0.31	$ 0.32	$ 0.30
10-Oct-20	$ 0.31	$ 0.32	$ 0.32	$ 0.30
09-Oct-20	$ 0.32	$ 0.30	$ 0.32	$ 0.30
08-Oct-20	$ 0.30	$ 0.30	$ 0.30	$ 0.30
07-Oct-20	$ 0.30	$ 0.29	$ 0.30	$ 0.29
06-Oct-20	$ 0.29	$ 0.31	$ 0.32	$ 0.29
05-Oct-20	$ 0.31	$ 0.30	$ 0.33	$ 0.30
04-Oct-20	$ 0.30	$ 0.31	$ 0.31	$ 0.30
03-Oct-20	$ 0.31	$ 0.33	$ 0.33	$ 0.31
02-Oct-20	$ 0.33	$ 0.32	$ 0.34	$ 0.29
01-Oct-20	$ 0.32	$ 0.33	$ 0.34	$ 0.31
30-Sep-20	$ 0.33	$ 0.33	$ 0.34	$ 0.33
29-Sep-20	$ 0.33	$ 0.32	$ 0.36	$ 0.32
28-Sep-20	$ 0.32	$ 0.31	$ 0.35	$ 0.31
27-Sep-20	$ 0.31	$ 0.32	$ 0.32	$ 0.31
26-Sep-20	$ 0.32	$ 0.32	$ 0.32	$ 0.31
25-Sep-20	$ 0.32	$ 0.30	$ 0.34	$ 0.29
24-Sep-20	$ 0.30	$ 0.29	$ 0.30	$ 0.29
23-Sep-20	$ 0.29	$ 0.30	$ 0.30	$ 0.29
22-Sep-20	$ 0.30	$ 0.29	$ 0.30	$ 0.29
21-Sep-20	$ 0.29	$ 0.31	$ 0.32	$ 0.29
20-Sep-20	$ 0.31	$ 0.32	$ 0.32	$ 0.31
19-Sep-20	$ 0.32	$ 0.32	$ 0.32	$ 0.31
18-Sep-20	$ 0.32	$ 0.31	$ 0.33	$ 0.31
17-Sep-20	$ 0.31	$ 0.32	$ 0.33	$ 0.31
16-Sep-20	$ 0.32	$ 0.34	$ 0.36	$ 0.32
15-Sep-20	$ 0.34	$ 0.32	$ 0.35	$ 0.31
14-Sep-20	$ 0.32	$ 0.31	$ 0.33	$ 0.31
13-Sep-20	$ 0.31	$ 0.33	$ 0.35	$ 0.30
12-Sep-20	$ 0.33	$ 0.34	$ 0.34	$ 0.32
11-Sep-20	$ 0.34	$ 0.35	$ 0.36	$ 0.32
10-Sep-20	$ 0.35	$ 0.32	$ 0.38	$ 0.32
09-Sep-20	$ 0.32	$ 0.32	$ 0.33	$ 0.31
08-Sep-20	$ 0.32	$ 0.33	$ 0.33	$ 0.31
07-Sep-20	$ 0.33	$ 0.34	$ 0.36	$ 0.31
06-Sep-20	$ 0.34	$ 0.34	$ 0.34	$ 0.32
05-Sep-20	$ 0.34	$ 0.38	$ 0.38	$ 0.33
04-Sep-20	$ 0.38	$ 0.38	$ 0.39	$ 0.37
03-Sep-20	$ 0.38	$ 0.45	$ 0.45	$ 0.38
02-Sep-20	$ 0.45	$ 0.48	$ 0.48	$ 0.43
01-Sep-20	$ 0.48	$ 0.51	$ 0.51	$ 0.48
31-Aug-20	$ 0.51	$ 0.53	$ 0.53	$ 0.51
30-Aug-20	$ 0.53	$ 0.54	$ 0.56	$ 0.53
29-Aug-20	$ 0.54	$ 0.56	$ 0.57	$ 0.52
28-Aug-20	$ 0.56	$ 0.50	$ 0.57	$ 0.50
27-Aug-20	$ 0.50	$ 0.50	$ 0.52	$ 0.48
26-Aug-20	$ 0.49	$ 0.46	$ 0.49	$ 0.46
25-Aug-20	$ 0.46	$ 0.53	$ 0.53	$ 0.45
24-Aug-20	$ 0.53	$ 0.48	$ 0.53	$ 0.48
23-Aug-20	$ 0.48	$ 0.47	$ 0.48	$ 0.45
22-Aug-20	$ 0.47	$ 0.43	$ 0.50	$ 0.42
21-Aug-20	$ 0.43	$ 0.51	$ 0.52	$ 0.43

Date	Market Price (Close)	Open	High	Low
20-Aug-20	$ 0.51	$ 0.51	$ 0.54	$ 0.51
19-Aug-20	$ 0.51	$ 0.56	$ 0.64	$ 0.50
18-Aug-20	$ 0.56	$ 0.56	$ 0.57	$ 0.52
17-Aug-20	$ 0.56	$ 0.60	$ 0.60	$ 0.55
16-Aug-20	$ 0.60	$ 0.51	$ 0.60	$ 0.51
15-Aug-20	$ 0.51	$ 0.52	$ 0.52	$ 0.51
14-Aug-20	$ 0.52	$ 0.53	$ 0.54	$ 0.51
13-Aug-20	$ 0.53	$ 0.57	$ 0.57	$ 0.53
12-Aug-20	$ 0.57	$ 0.52	$ 0.58	$ 0.52
11-Aug-20	$ 0.52	$ 0.57	$ 0.58	$ 0.50
10-Aug-20	$ 0.57	$ 0.44	$ 0.60	$ 0.41
09-Aug-20	$ 0.44	$ 0.36	$ 0.44	$ 0.36
08-Aug-20	$ 0.36	$ 0.34	$ 0.40	$ 0.34
07-Aug-20	$ 0.34	$ 0.35	$ 0.35	$ 0.33
06-Aug-20	$ 0.35	$ 0.34	$ 0.36	$ 0.34
05-Aug-20	$ 0.34	$ 0.33	$ 0.35	$ 0.32
04-Aug-20	$ 0.33	$ 0.33	$ 0.34	$ 0.31
03-Aug-20	$ 0.33	$ 0.33	$ 0.35	$ 0.32
02-Aug-20	$ 0.33	$ 0.28	$ 0.33	$ 0.28
01-Aug-20	$ 0.28	$ 0.31	$ 0.31	$ 0.28
31-Jul-20	$ 0.31	$ 0.34	$ 0.34	$ 0.30
30-Jul-20	$ 0.34	$ 0.35	$ 0.36	$ 0.32
29-Jul-20	$ 0.35	$ 0.38	$ 0.39	$ 0.34
28-Jul-20	$ 0.38	$ 0.40	$ 0.40	$ 0.37
27-Jul-20	$ 0.40	$ 0.42	$ 0.44	$ 0.37
26-Jul-20	$ 0.42	$ 0.38	$ 0.42	$ 0.37
25-Jul-20	$ 0.38	$ 0.38	$ 0.39	$ 0.38
24-Jul-20	$ 0.38	$ 0.39	$ 0.39	$ 0.37
23-Jul-20	$ 0.39	$ 0.38	$ 0.41	$ 0.38
22-Jul-20	$ 0.38	$ 0.32	$ 0.41	$ 0.32
21-Jul-20	$ 0.32	$ 0.34	$ 0.35	$ 0.30
20-Jul-20	$ 0.34	$ 0.34	$ 0.38	$ 0.34
19-Jul-20	$ 0.34	$ 0.27	$ 0.35	$ 0.26
18-Jul-20	$ 0.27	$ 0.26	$ 0.27	$ 0.25
17-Jul-20	$ 0.26	$ 0.23	$ 0.26	$ 0.23
16-Jul-20	$ 0.23	$ 0.23	$ 0.24	$ 0.22
15-Jul-20	$ 0.23	$ 0.22	$ 0.24	$ 0.22
14-Jul-20	$ 0.22	$ 0.21	$ 0.22	$ 0.21
13-Jul-20	$ 0.21	$ 0.21	$ 0.22	$ 0.21
12-Jul-20	$ 0.21	$ 0.21	$ 0.22	$ 0.21
11-Jul-20	$ 0.21	$ 0.21	$ 0.21	$ 0.21
10-Jul-20	$ 0.21	$ 0.21	$ 0.21	$ 0.21
09-Jul-20	$ 0.21	$ 0.21	$ 0.21	$ 0.21
08-Jul-20	$ 0.21	$ 0.21	$ 0.22	$ 0.21
07-Jul-20	$ 0.21	$ 0.21	$ 0.22	$ 0.21
06-Jul-20	$ 0.21	$ 0.21	$ 0.22	$ 0.21
05-Jul-20	$ 0.21	$ 0.21	$ 0.21	$ 0.21
04-Jul-20	$ 0.21	$ 0.21	$ 0.21	$ 0.21
03-Jul-20	$ 0.21	$ 0.21	$ 0.21	$ 0.21
02-Jul-20	$ 0.21	$ 0.21	$ 0.21	$ 0.21
01-Jul-20	$ 0.21	$ 0.21	$ 0.21	$ 0.20
30-Jun-20	$ 0.21	$ 0.21	$ 0.21	$ 0.21
29-Jun-20	$ 0.21	$ 0.21	$ 0.21	$ 0.21
28-Jun-20	$ 0.21	$ 0.21	$ 0.21	$ 0.20
27-Jun-20	$ 0.21	$ 0.20	$ 0.21	$ 0.20
26-Jun-20	$ 0.20	$ 0.20	$ 0.21	$ 0.20
25-Jun-20	$ 0.20	$ 0.21	$ 0.21	$ 0.20
24-Jun-20	$ 0.21	$ 0.21	$ 0.21	$ 0.20

Date	Market Price (Close)	Open	High	Low
23-Jun-20	$ 0.21	$ 0.21	$ 0.21	$ 0.21
22-Jun-20	$ 0.21	$ 0.21	$ 0.21	$ 0.20
21-Jun-20	$ 0.21	$ 0.21	$ 0.21	$ 0.21
20-Jun-20	$ 0.21	$ 0.21	$ 0.21	$ 0.21
19-Jun-20	$ 0.21	$ 0.21	$ 0.21	$ 0.21
18-Jun-20	$ 0.21	$ 0.21	$ 0.22	$ 0.21
17-Jun-20	$ 0.21	$ 0.22	$ 0.22	$ 0.21
16-Jun-20	$ 0.22	$ 0.21	$ 0.22	$ 0.21
15-Jun-20	$ 0.21	$ 0.21	$ 0.21	$ 0.20
14-Jun-20	$ 0.21	$ 0.21	$ 0.21	$ 0.21
13-Jun-20	$ 0.21	$ 0.21	$ 0.21	$ 0.21
12-Jun-20	$ 0.21	$ 0.20	$ 0.21	$ 0.20
11-Jun-20	$ 0.20	$ 0.23	$ 0.23	$ 0.20
10-Jun-20	$ 0.23	$ 0.22	$ 0.25	$ 0.22
09-Jun-20	$ 0.22	$ 0.22	$ 0.25	$ 0.22
08-Jun-20	$ 0.22	$ 0.22	$ 0.22	$ 0.21
07-Jun-20	$ 0.22	$ 0.21	$ 0.22	$ 0.21
06-Jun-20	$ 0.21	$ 0.21	$ 0.21	$ 0.21
05-Jun-20	$ 0.21	$ 0.22	$ 0.22	$ 0.21
04-Jun-20	$ 0.22	$ 0.20	$ 0.22	$ 0.20
03-Jun-20	$ 0.20	$ 0.20	$ 0.20	$ 0.20
02-Jun-20	$ 0.20	$ 0.20	$ 0.20	$ 0.20
01-Jun-20	$ 0.20	$ 0.20	$ 0.20	$ 0.20
31-May-20	$ 0.20	$ 0.20	$ 0.20	$ 0.19
30-May-20	$ 0.20	$ 0.20	$ 0.20	$ 0.19
29-May-20	$ 0.20	$ 0.20	$ 0.22	$ 0.20
28-May-20	$ 0.20	$ 0.20	$ 0.20	$ 0.20
27-May-20	$ 0.20	$ 0.20	$ 0.20	$ 0.19
26-May-20	$ 0.20	$ 0.19	$ 0.20	$ 0.19
25-May-20	$ 0.19	$ 0.18	$ 0.19	$ 0.18
24-May-20	$ 0.18	$ 0.19	$ 0.19	$ 0.18
23-May-20	$ 0.19	$ 0.18	$ 0.19	$ 0.18
22-May-20	$ 0.18	$ 0.18	$ 0.19	$ 0.17
21-May-20	$ 0.18	$ 0.19	$ 0.19	$ 0.18
20-May-20	$ 0.19	$ 0.19	$ 0.19	$ 0.19
19-May-20	$ 0.19	$ 0.19	$ 0.19	$ 0.18
18-May-20	$ 0.19	$ 0.19	$ 0.20	$ 0.19
17-May-20	$ 0.19	$ 0.19	$ 0.20	$ 0.18
16-May-20	$ 0.19	$ 0.18	$ 0.19	$ 0.18
15-May-20	$ 0.18	$ 0.19	$ 0.19	$ 0.18
14-May-20	$ 0.19	$ 0.19	$ 0.19	$ 0.19
13-May-20	$ 0.19	$ 0.19	$ 0.19	$ 0.19
12-May-20	$ 0.19	$ 0.18	$ 0.19	$ 0.18
11-May-20	$ 0.18	$ 0.18	$ 0.19	$ 0.18
10-May-20	$ 0.18	$ 0.19	$ 0.19	$ 0.18
09-May-20	$ 0.19	$ 0.19	$ 0.20	$ 0.19
08-May-20	$ 0.19	$ 0.19	$ 0.20	$ 0.19
07-May-20	$ 0.19	$ 0.22	$ 0.23	$ 0.19
06-May-20	$ 0.22	$ 0.19	$ 0.25	$ 0.19
05-May-20	$ 0.19	$ 0.19	$ 0.19	$ 0.19
04-May-20	$ 0.19	$ 0.19	$ 0.19	$ 0.19
03-May-20	$ 0.19	$ 0.20	$ 0.20	$ 0.19
02-May-20	$ 0.20	$ 0.19	$ 0.20	$ 0.19
01-May-20	$ 0.19	$ 0.19	$ 0.20	$ 0.19
30-Apr-20	$ 0.19	$ 0.20	$ 0.21	$ 0.19
29-Apr-20	$ 0.20	$ 0.20	$ 0.20	$ 0.20
28-Apr-20	$ 0.20	$ 0.20	$ 0.20	$ 0.19
27-Apr-20	$ 0.20	$ 0.20	$ 0.20	$ 0.19

Date	Market Price (Close)	Open	High	Low
26-Apr-20	$ 0.20	$ 0.20	$ 0.20	$ 0.19
25-Apr-20	$ 0.20	$ 0.20	$ 0.20	$ 0.19
24-Apr-20	$ 0.20	$ 0.20	$ 0.20	$ 0.19
23-Apr-20	$ 0.20	$ 0.20	$ 0.20	$ 0.19
22-Apr-20	$ 0.20	$ 0.21	$ 0.21	$ 0.19
21-Apr-20	$ 0.21	$ 0.21	$ 0.22	$ 0.20
20-Apr-20	$ 0.21	$ 0.23	$ 0.23	$ 0.21
19-Apr-20	$ 0.23	$ 0.22	$ 0.24	$ 0.22
18-Apr-20	$ 0.22	$ 0.22	$ 0.22	$ 0.21
17-Apr-20	$ 0.22	$ 0.22	$ 0.23	$ 0.21
16-Apr-20	$ 0.22	$ 0.20	$ 0.22	$ 0.19
15-Apr-20	$ 0.20	$ 0.20	$ 0.21	$ 0.19
14-Apr-20	$ 0.20	$ 0.18	$ 0.21	$ 0.18
13-Apr-20	$ 0.18	$ 0.19	$ 0.19	$ 0.17
12-Apr-20	$ 0.19	$ 0.17	$ 0.19	$ 0.17
11-Apr-20	$ 0.17	$ 0.17	$ 0.17	$ 0.17
10-Apr-20	$ 0.17	$ 0.18	$ 0.18	$ 0.16
09-Apr-20	$ 0.18	$ 0.18	$ 0.18	$ 0.18
08-Apr-20	$ 0.18	$ 0.17	$ 0.18	$ 0.17
07-Apr-20	$ 0.17	$ 0.18	$ 0.18	$ 0.17
06-Apr-20	$ 0.18	$ 0.16	$ 0.18	$ 0.16
05-Apr-20	$ 0.16	$ 0.16	$ 0.17	$ 0.15
04-Apr-20	$ 0.16	$ 0.15	$ 0.16	$ 0.15
03-Apr-20	$ 0.15	$ 0.15	$ 0.15	$ 0.14
02-Apr-20	$ 0.15	$ 0.14	$ 0.15	$ 0.14
01-Apr-20	$ 0.14	$ 0.14	$ 0.14	$ 0.14
31-Mar-20	$ 0.14	$ 0.14	$ 0.14	$ 0.14
30-Mar-20	$ 0.14	$ 0.14	$ 0.14	$ 0.14
29-Mar-20	$ 0.14	$ 0.14	$ 0.14	$ 0.14
28-Mar-20	$ 0.14	$ 0.14	$ 0.14	$ 0.14
27-Mar-20	$ 0.14	$ 0.15	$ 0.15	$ 0.14
26-Mar-20	$ 0.15	$ 0.15	$ 0.15	$ 0.14
25-Mar-20	$ 0.15	$ 0.15	$ 0.15	$ 0.14
24-Mar-20	$ 0.15	$ 0.14	$ 0.15	$ 0.14
23-Mar-20	$ 0.14	$ 0.13	$ 0.14	$ 0.13
22-Mar-20	$ 0.13	$ 0.14	$ 0.15	$ 0.13
21-Mar-20	$ 0.14	$ 0.14	$ 0.14	$ 0.13
20-Mar-20	$ 0.14	$ 0.15	$ 0.16	$ 0.14
19-Mar-20	$ 0.15	$ 0.13	$ 0.19	$ 0.12
18-Mar-20	$ 0.13	$ 0.14	$ 0.14	$ 0.12
17-Mar-20	$ 0.14	$ 0.14	$ 0.14	$ 0.13
16-Mar-20	$ 0.14	$ 0.14	$ 0.15	$ 0.13
15-Mar-20	$ 0.14	$ 0.15	$ 0.15	$ 0.14
14-Mar-20	$ 0.15	$ 0.16	$ 0.16	$ 0.15
13-Mar-20	$ 0.16	$ 0.16	$ 0.17	$ 0.12
12-Mar-20	$ 0.16	$ 0.20	$ 0.20	$ 0.16
11-Mar-20	$ 0.20	$ 0.21	$ 0.21	$ 0.20
10-Mar-20	$ 0.21	$ 0.21	$ 0.21	$ 0.20
09-Mar-20	$ 0.21	$ 0.21	$ 0.21	$ 0.20
08-Mar-20	$ 0.21	$ 0.24	$ 0.24	$ 0.21
07-Mar-20	$ 0.24	$ 0.24	$ 0.24	$ 0.23
06-Mar-20	$ 0.24	$ 0.24	$ 0.24	$ 0.23
05-Mar-20	$ 0.24	$ 0.24	$ 0.24	$ 0.24
04-Mar-20	$ 0.24	$ 0.24	$ 0.25	$ 0.24
03-Mar-20	$ 0.24	$ 0.25	$ 0.25	$ 0.24
02-Mar-20	$ 0.25	$ 0.24	$ 0.26	$ 0.24
01-Mar-20	$ 0.24	$ 0.22	$ 0.26	$ 0.22
29-Feb-20	$ 0.22	$ 0.22	$ 0.22	$ 0.22

Date	Market Price (Close)	Open	High	Low
28-Feb-20	$ 0.22	$ 0.23	$ 0.23	$ 0.21
27-Feb-20	$ 0.23	$ 0.21	$ 0.23	$ 0.21
26-Feb-20	$ 0.22	$ 0.23	$ 0.23	$ 0.21
25-Feb-20	$ 0.23	$ 0.25	$ 0.25	$ 0.23
24-Feb-20	$ 0.25	$ 0.26	$ 0.26	$ 0.24
23-Feb-20	$ 0.26	$ 0.26	$ 0.27	$ 0.26
22-Feb-20	$ 0.26	$ 0.25	$ 0.27	$ 0.25
21-Feb-20	$ 0.25	$ 0.23	$ 0.26	$ 0.23
20-Feb-20	$ 0.23	$ 0.22	$ 0.24	$ 0.22
19-Feb-20	$ 0.22	$ 0.24	$ 0.24	$ 0.22
18-Feb-20	$ 0.24	$ 0.24	$ 0.24	$ 0.23
17-Feb-20	$ 0.24	$ 0.25	$ 0.25	$ 0.23
16-Feb-20	$ 0.25	$ 0.26	$ 0.27	$ 0.25
15-Feb-20	$ 0.26	$ 0.28	$ 0.28	$ 0.26
14-Feb-20	$ 0.28	$ 0.28	$ 0.28	$ 0.27
13-Feb-20	$ 0.28	$ 0.26	$ 0.30	$ 0.26
12-Feb-20	$ 0.26	$ 0.36	$ 0.37	$ 0.26
11-Feb-20	$ 0.34	$ 0.23	$ 0.35	$ 0.22
10-Feb-20	$ 0.23	$ 0.23	$ 0.23	$ 0.22
09-Feb-20	$ 0.23	$ 0.23	$ 0.23	$ 0.22
08-Feb-20	$ 0.23	$ 0.23	$ 0.23	$ 0.21
07-Feb-20	$ 0.23	$ 0.22	$ 0.23	$ 0.22
06-Feb-20	$ 0.22	$ 0.21	$ 0.22	$ 0.20
05-Feb-20	$ 0.21	$ 0.20	$ 0.21	$ 0.20
04-Feb-20	$ 0.20	$ 0.20	$ 0.21	$ 0.19
03-Feb-20	$ 0.20	$ 0.20	$ 0.21	$ 0.20
02-Feb-20	$ 0.20	$ 0.19	$ 0.20	$ 0.19
01-Feb-20	$ 0.19	$ 0.19	$ 0.19	$ 0.19
31-Jan-20	$ 0.19	$ 0.19	$ 0.19	$ 0.19
30-Jan-20	$ 0.19	$ 0.19	$ 0.19	$ 0.19
29-Jan-20	$ 0.19	$ 0.19	$ 0.20	$ 0.19
28-Jan-20	$ 0.19	$ 0.19	$ 0.19	$ 0.18
27-Jan-20	$ 0.19	$ 0.19	$ 0.19	$ 0.18
26-Jan-20	$ 0.19	$ 0.19	$ 0.19	$ 0.19
25-Jan-20	$ 0.19	$ 0.19	$ 0.19	$ 0.18
24-Jan-20	$ 0.19	$ 0.19	$ 0.19	$ 0.19
23-Jan-20	$ 0.19	$ 0.19	$ 0.19	$ 0.19
22-Jan-20	$ 0.19	$ 0.20	$ 0.20	$ 0.19
21-Jan-20	$ 0.20	$ 0.20	$ 0.20	$ 0.20
20-Jan-20	$ 0.20	$ 0.20	$ 0.21	$ 0.20
19-Jan-20	$ 0.20	$ 0.20	$ 0.24	$ 0.20
18-Jan-20	$ 0.20	$ 0.21	$ 0.21	$ 0.20
17-Jan-20	$ 0.21	$ 0.20	$ 0.21	$ 0.20
16-Jan-20	$ 0.20	$ 0.20	$ 0.21	$ 0.19
15-Jan-20	$ 0.20	$ 0.19	$ 0.21	$ 0.19
14-Jan-20	$ 0.20	$ 0.20	$ 0.21	$ 0.19
13-Jan-20	$ 0.20	$ 0.21	$ 0.21	$ 0.19
12-Jan-20	$ 0.21	$ 0.20	$ 0.22	$ 0.20
11-Jan-20	$ 0.20	$ 0.20	$ 0.22	$ 0.20
10-Jan-20	$ 0.20	$ 0.21	$ 0.22	$ 0.20
09-Jan-20	$ 0.21	$ 0.20	$ 0.22	$ 0.20
08-Jan-20	$ 0.20	$ 0.22	$ 0.22	$ 0.20
07-Jan-20	$ 0.22	$ 0.23	$ 0.23	$ 0.22
06-Jan-20	$ 0.23	$ 0.24	$ 0.25	$ 0.22
05-Jan-20	$ 0.24	$ 0.24	$ 0.24	$ 0.24
04-Jan-20	$ 0.24	$ 0.22	$ 0.25	$ 0.22
03-Jan-20	$ 0.22	$ 0.21	$ 0.24	$ 0.20
02-Jan-20	$ 0.21	$ 0.23	$ 0.23	$ 0.21

Date	Market Price (Close)		Open		High		Low	
01-Jan-20	$	0.23	$	0.26	$	0.26	$	0.23
31-Dec-19	$	0.26	$	0.29	$	0.29	$	0.26
30-Dec-19	$	0.29	$	0.31	$	0.32	$	0.28
29-Dec-19	$	0.31	$	0.29	$	0.33	$	0.29
28-Dec-19	$	0.29	$	0.31	$	0.31	$	0.29
27-Dec-19	$	0.31	$	0.35	$	0.46	$	0.29
26-Dec-19	$	0.35	$	0.34	$	0.37	$	0.33
25-Dec-19	$	0.34	$	0.32	$	0.37	$	0.32
24-Dec-19	$	0.32	$	0.28	$	0.33	$	0.28
23-Dec-19	$	0.28	$	0.27	$	0.29	$	0.27
22-Dec-19	$	0.27	$	0.26	$	0.27	$	0.25
21-Dec-19	$	0.26	$	0.24	$	0.28	$	0.24
20-Dec-19	$	0.24	$	0.22	$	0.26	$	0.22
19-Dec-19	$	0.22	$	0.21	$	0.23	$	0.20
18-Dec-19	$	0.21	$	0.22	$	0.22	$	0.20
17-Dec-19	$	0.22	$	0.25	$	0.25	$	0.22
16-Dec-19	$	0.25	$	0.27	$	0.27	$	0.24
15-Dec-19	$	0.27	$	0.27	$	0.27	$	0.26
14-Dec-19	$	0.27	$	0.27	$	0.27	$	0.26
13-Dec-19	$	0.27	$	0.27	$	0.28	$	0.26
12-Dec-19	$	0.27	$	0.26	$	0.27	$	0.26
11-Dec-19	$	0.26	$	0.26	$	0.26	$	0.25
10-Dec-19	$	0.26	$	0.26	$	0.26	$	0.25
09-Dec-19	$	0.26	$	0.27	$	0.27	$	0.26
08-Dec-19	$	0.27	$	0.27	$	0.27	$	0.26
07-Dec-19	$	0.27	$	0.27	$	0.27	$	0.27
06-Dec-19	$	0.27	$	0.25	$	0.27	$	0.25
05-Dec-19	$	0.25	$	0.25	$	0.26	$	0.25
04-Dec-19	$	0.25	$	0.26	$	0.26	$	0.24
03-Dec-19	$	0.26	$	0.26	$	0.27	$	0.26
02-Dec-19	$	0.26	$	0.28	$	0.28	$	0.26
01-Dec-19	$	0.28	$	0.28	$	0.29	$	0.27
30-Nov-19	$	0.28	$	0.29	$	0.29	$	0.28
29-Nov-19	$	0.29	$	0.26	$	0.30	$	0.26
28-Nov-19	$	0.26	$	0.22	$	0.27	$	0.22
27-Nov-19	$	0.22	$	0.23	$	0.24	$	0.22
26-Nov-19	$	0.23	$	0.24	$	0.24	$	0.22
25-Nov-19	$	0.24	$	0.26	$	0.26	$	0.23
24-Nov-19	$	0.26	$	0.27	$	0.27	$	0.26
23-Nov-19	$	0.27	$	0.25	$	0.28	$	0.25
22-Nov-19	$	0.25	$	0.30	$	0.30	$	0.25
21-Nov-19	$	0.30	$	0.33	$	0.33	$	0.29
20-Nov-19	$	0.33	$	0.32	$	0.33	$	0.32
19-Nov-19	$	0.32	$	0.35	$	0.36	$	0.32
18-Nov-19	$	0.35	$	0.38	$	0.38	$	0.35
17-Nov-19	$	0.38	$	0.38	$	0.39	$	0.37
16-Nov-19	$	0.38	$	0.38	$	0.44	$	0.37
15-Nov-19	$	0.38	$	0.37	$	0.39	$	0.35
14-Nov-19	$	0.37	$	0.38	$	0.40	$	0.36
13-Nov-19	$	0.38	$	0.38	$	0.39	$	0.36
12-Nov-19	$	0.38	$	0.38	$	0.39	$	0.38
11-Nov-19	$	0.38	$	0.40	$	0.40	$	0.38
10-Nov-19	$	0.40	$	0.41	$	0.42	$	0.40
09-Nov-19	$	0.41	$	0.42	$	0.43	$	0.41
08-Nov-19	$	0.42	$	0.45	$	0.46	$	0.42
07-Nov-19	$	0.45	$	0.46	$	0.46	$	0.44
06-Nov-19	$	0.46	$	0.46	$	0.47	$	0.45
05-Nov-19	$	0.46	$	0.45	$	0.46	$	0.45

Date	Market Price (Close)	Open	High	Low
04-Nov-19	$ 0.45	$ 0.47	$ 0.47	$ 0.45
03-Nov-19	$ 0.47	$ 0.46	$ 0.47	$ 0.46
02-Nov-19	$ 0.46	$ 0.45	$ 0.46	$ 0.45
01-Nov-19	$ 0.45	$ 0.47	$ 0.47	$ 0.45
31-Oct-19	$ 0.47	$ 0.46	$ 0.47	$ 0.46
30-Oct-19	$ 0.46	$ 0.47	$ 0.48	$ 0.46
29-Oct-19	$ 0.47	$ 0.46	$ 0.48	$ 0.46
28-Oct-19	$ 0.46	$ 0.49	$ 0.49	$ 0.46
27-Oct-19	$ 0.49	$ 0.49	$ 0.49	$ 0.47
26-Oct-19	$ 0.49	$ 0.50	$ 0.51	$ 0.48
25-Oct-19	$ 0.50	$ 0.47	$ 0.50	$ 0.47
24-Oct-19	$ 0.47	$ 0.48	$ 0.48	$ 0.47
23-Oct-19	$ 0.48	$ 0.49	$ 0.51	$ 0.47
22-Oct-19	$ 0.49	$ 0.50	$ 0.50	$ 0.49
21-Oct-19	$ 0.50	$ 0.53	$ 0.54	$ 0.49
20-Oct-19	$ 0.53	$ 0.53	$ 0.54	$ 0.52
19-Oct-19	$ 0.53	$ 0.53	$ 0.55	$ 0.53
18-Oct-19	$ 0.53	$ 0.56	$ 0.57	$ 0.53
17-Oct-19	$ 0.56	$ 0.55	$ 0.58	$ 0.55
16-Oct-19	$ 0.55	$ 0.60	$ 0.60	$ 0.54
15-Oct-19	$ 0.60	$ 0.67	$ 0.67	$ 0.59
14-Oct-19	$ 0.67	$ 0.71	$ 0.71	$ 0.67
13-Oct-19	$ 0.71	$ 0.71	$ 0.72	$ 0.70
12-Oct-19	$ 0.70	$ 0.71	$ 0.72	$ 0.70
11-Oct-19	$ 0.71	$ 0.73	$ 0.74	$ 0.71
10-Oct-19	$ 0.73	$ 0.70	$ 0.75	$ 0.69
09-Oct-19	$ 0.69	$ 0.70	$ 0.71	$ 0.69
08-Oct-19	$ 0.70	$ 0.71	$ 0.72	$ 0.69
07-Oct-19	$ 0.71	$ 0.71	$ 0.71	$ 0.68
06-Oct-19	$ 0.71	$ 0.72	$ 0.74	$ 0.69
05-Oct-19	$ 0.72	$ 0.71	$ 0.72	$ 0.67
04-Oct-19	$ 0.71	$ 0.77	$ 0.78	$ 0.70
03-Oct-19	$ 0.77	$ 0.83	$ 0.83	$ 0.77
02-Oct-19	$ 0.83	$ 0.90	$ 0.90	$ 0.82
01-Oct-19	$ 0.90	$ 1.03	$ 1.08	$ 0.90
30-Sep-19	$ 1.03	$ 0.84	$ 1.03	$ 0.82
29-Sep-19	$ 0.84	$ 0.84	$ 0.85	$ 0.82
28-Sep-19	$ 0.84	$ 0.83	$ 0.85	$ 0.82
27-Sep-19	$ 0.83	$ 0.83	$ 0.83	$ 0.81
26-Sep-19	$ 0.82	$ 0.84	$ 0.85	$ 0.80
25-Sep-19	$ 0.84	$ 0.83	$ 0.85	$ 0.82
24-Sep-19	$ 0.83	$ 0.96	$ 0.97	$ 0.83
23-Sep-19	$ 0.96	$ 0.97	$ 0.98	$ 0.95
22-Sep-19	$ 0.97	$ 0.97	$ 0.97	$ 0.93
21-Sep-19	$ 0.97	$ 0.99	$ 0.99	$ 0.97
20-Sep-19	$ 0.99	$ 0.99	$ 1.82	$ 0.97
19-Sep-19	$ 1.00	$ 1.04	$ 1.04	$ 0.98
18-Sep-19	$ 1.04	$ 1.05	$ 1.06	$ 1.04
17-Sep-19	$ 1.05	$ 1.01	$ 1.06	$ 0.99
16-Sep-19	$ 1.01	$ 1.05	$ 1.06	$ 1.00
15-Sep-19	$ 1.05	$ 1.06	$ 1.07	$ 1.05
14-Sep-19	$ 1.06	$ 1.06	$ 1.07	$ 1.06
13-Sep-19	$ 1.06	$ 1.06	$ 1.07	$ 1.05
12-Sep-19	$ 1.06	$ 1.06	$ 1.07	$ 1.05
11-Sep-19	$ 1.06	$ 1.09	$ 1.10	$ 1.05
10-Sep-19	$ 1.09	$ 1.11	$ 1.12	$ 1.05
09-Sep-19	$ 1.11	$ 1.15	$ 1.16	$ 1.10
08-Sep-19	$ 1.15	$ 1.16	$ 1.17	$ 1.15

Date	Market Price (Close)	Open	High	Low
07-Sep-19	$ 1.16	$ 1.13	$ 1.17	$ 1.06
06-Sep-19	$ 1.13	$ 1.16	$ 1.19	$ 1.13
05-Sep-19	$ 1.16	$ 1.18	$ 1.19	$ 1.15
04-Sep-19	$ 1.18	$ 1.23	$ 1.23	$ 1.13
03-Sep-19	$ 1.23	$ 1.16	$ 1.24	$ 1.11
02-Sep-19	$ 1.16	$ 1.16	$ 1.17	$ 1.14
01-Sep-19	$ 1.16	$ 1.17	$ 1.18	$ 1.15
31-Aug-19	$ 1.17	$ 1.17	$ 1.19	$ 1.14
30-Aug-19	$ 1.17	$ 1.15	$ 1.19	$ 1.14
29-Aug-19	$ 1.15	$ 1.12	$ 1.19	$ 1.10
28-Aug-19	$ 1.12	$ 1.16	$ 1.19	$ 1.11
27-Aug-19	$ 1.16	$ 1.17	$ 1.23	$ 1.13
26-Aug-19	$ 1.17	$ 1.24	$ 1.26	$ 1.16
25-Aug-19	$ 1.24	$ 1.17	$ 1.26	$ 1.12
24-Aug-19	$ 1.17	$ 1.18	$ 1.19	$ 1.12
23-Aug-19	$ 1.18	$ 1.22	$ 1.23	$ 1.15
22-Aug-19	$ 1.22	$ 1.30	$ 1.30	$ 1.17
21-Aug-19	$ 1.30	$ 1.26	$ 1.33	$ 1.22
20-Aug-19	$ 1.26	$ 1.31	$ 2.06	$ 1.22
19-Aug-19	$ 1.31	$ 1.31	$ 1.36	$ 1.21
18-Aug-19	$ 1.30	$ 1.32	$ 1.33	$ 1.22
17-Aug-19	$ 1.32	$ 1.30	$ 1.37	$ 1.23
16-Aug-19	$ 1.30	$ 1.32	$ 1.33	$ 1.20
15-Aug-19	$ 1.32	$ 1.30	$ 1.36	$ 1.24
14-Aug-19	$ 1.30	$ 1.39	$ 1.42	$ 1.25
13-Aug-19	$ 1.39	$ 1.28	$ 1.42	$ 1.12
12-Aug-19	$ 1.28	$ 1.27	$ 1.39	$ 1.14
11-Aug-19	$ 1.27	$ 1.14	$ 1.29	$ 1.09
10-Aug-19	$ 1.14	$ 1.22	$ 1.22	$ 1.09
09-Aug-19	$ 1.22	$ 1.20	$ 1.28	$ 1.19
08-Aug-19	$ 1.20	$ 1.11	$ 1.23	$ 1.10
07-Aug-19	$ 1.11	$ 1.15	$ 1.16	$ 1.07
06-Aug-19	$ 1.15	$ 1.19	$ 1.28	$ 1.05
05-Aug-19	$ 1.19	$ 1.25	$ 1.28	$ 1.16
04-Aug-19	$ 1.25	$ 1.26	$ 1.26	$ 1.19
03-Aug-19	$ 1.26	$ 1.27	$ 1.28	$ 1.24
02-Aug-19	$ 1.27	$ 1.28	$ 1.35	$ 1.21
01-Aug-19	$ 1.28	$ 1.30	$ 1.36	$ 1.28
31-Jul-19	$ 1.30	$ 1.29	$ 1.33	$ 1.27
30-Jul-19	$ 1.29	$ 1.29	$ 1.37	$ 1.27
29-Jul-19	$ 1.29	$ 1.26	$ 1.38	$ 1.18
28-Jul-19	$ 1.27	$ 1.31	$ 1.37	$ 1.24
27-Jul-19	$ 1.31	$ 1.33	$ 1.40	$ 1.22
26-Jul-19	$ 1.33	$ 1.70	$ 1.83	$ 1.26