Holon global investments

Invest Different

Submission

June 2021

Senate Select Committee on Australia as a Technology and Financial Centre – Third Issues Paper

Holon Global Investments Limited provides the following submission to the Senate Select Committee on Australia as a Technology and Financial Centre regarding its Third Issues Paper

About Holon

Holon Global Investments is a next generation fund manager designing the core investment portfolios and platforms of the future. A different wealth creation strategy and a different business model to create and protect wealth is needed at a time when the pace of change is astonishing.

We believe innovation drives wealth creation, and everyone should have access to investing in the best companies globally that are driving innovation today, tomorrow and in the future. For more information, visit http://www.holon.investments

Executive Summary

Holon Global Investments Limited believes that the accelerating evolution of Web 3.0 innovation (peer-to-peer applications across verified networks) will disrupt Web 2.0 (social platforms), providing a multi-trillion dollar opportunity for Australian jobs and the economy.

Web 3.0 is challenging the idea of centrally controlled money and what it traditionally represents. The example of Bitcoin, with its value proposition as 'digital gold' in increasingly volatile monetary and fiscal systems around the world, is evident.

The digitalisation of financial services, and what it means for the future of banking, is rapidly becoming a reality. Legal certainty for owners of digital assets and digital asset friendly 'banking as a service' has been legislated in Wyoming, U.S., representing a much lower risk, sustainable business model.

Web 3.0 is also challenging conventional notions of data storage and retrieval. The example of Filecoin and the interplanetary file system, with its user-driven, user-owned data model to provide personal data security and privacy in a world run by data consuming conglomerates, is taking flight.

We believe that time is running out for Australia to be a competitive participant in Web 3.0 if we don't take practical steps now, beginning with establishing a comprehensive and clear set of digital asset laws, and introducing a new type of digital bank – an Australian Depository Institution - to provide basic banking to blockchain and businesses dealing in digital assets.

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Broad Response to the Third Issues Paper

The exponential growth of Web 1.0 & 2.0 industry

At the birth of the internet, we experienced 'Web 1.0' (1990s) where information was shared mostly via websites in a read-only fashion. We then moved into 'Web 2.0' (2000s) through platforms like Google, Facebook, Apple, Amazon, and Alibaba, where we could not just read, but also write, which allowed us to interact with the platform.

Web 1.0 democratised information. Web 2.0 enabled social coordination of our various activities on a global scale.

Web 2.0 has created significant value. The world's seven largest companies provide the essential digital infrastructure of Web 2.0, which has only been enhanced by the accelerated digitisation caused by the Covid-19 pandemic. We believe that these companies are going to get a lot bigger as a result.

Evolution of Web 3.0 and its disruption to Web 2.0

We have placed our data and enormous power into the hands of a few giant companies that is now widely recognised as one of biggest dangers of our new digital lives.

For example, whether you agree or disagree with former President Trump's positions and views, when a sitting US President is censored — as occurred in January 2021 by the major platforms such as Facebook and Twitter — we all implicitly understand the limitations of the current Web 2.0 data model.

The internet is entering into a third generation known as Web 3.0 that is essentially solving the data issue of Web 2.0. Web 3.0 shifts us to a model of read and write, but it adds something new: the ability to 'verify' that allows us to run applications peer-to-peer without third-party oversight of a Facebook, Google or Twitter.

We believe that most people are yet to understand the potential for significant disruption from Web 3.0 innovations on Web 2.0 businesses as web 3.0 technology enables a new trustless way to transact. Additionally, the value proposition of Web 3.0 —solving the data issue of Web 2.0 — has the potential to be worth many multiples of Web 2.0 solutions, i.e., to be worth many tens of trillions of dollars compared to the trillions of Web 2.0.

Web 3.0 and the global digitalisation of financial services

Our banking system has fundamental issues. Firstly, as we have seen with various deposit guarantee schemes around the world, society essentially guarantees the banking system.

To avoid the guarantee being used, particularly in a world of falling interest rates, Governments and regulators have forced banks to increase capital and operate with more compliance. But that is hurting shareholder returns.

In Australia, banking has transitioned into a period of significantly lower returns on equity (ROE) due to post-Global Financial Crisis (GFC) reforms. Australia's highest returning bank, CBA, has seen their cash ROE more than halved from 22% in 2007 to just 10.5% in the 1H2021 result.

But are shareholders being compensated for these falling returns with a lower risk to shareholder capital? We would argue they have not because of an issue with our current form of money that could see financial services and banks severely disrupted in the future.

While banks have been our trusted custodians of money, they don't actually determine 'what money is'.

What is money at its root? In 1996, in his paper entitled 'Money is Memory', Narayana Kocherlakota, President of the Federal Reserve Bank of Minneapolis, makes a case for understanding money as a primitive form of memory of past transactions. There were two key conclusions of the paper:

1. The only thing that money adds to a society is a (limited) ability to keep track of the past; and
2. That money may only be an imperfect substitute for high-quality information storage and access. There could be better ways to achieve this. This real-world message serves to underscore that the government's monopoly on seigniorage (the ability to create money) might be in some jeopardy as information access and storage costs decline.

Bitcoin – Web 3.0's store of value or 'digital gold'

Due to the permanent and digital form of Bitcoin's ledger, society can now keep track of the past with a high degree of informational certainty while also storing and accessing 'data' or 'memory' at a much lower cost. Ross Stevens, the CEO of Stone Ridge Capital, a well-known investor in Bitcoin, defines money more simply as follows:

> *"…Money is and always has been technology. Whether it was seashells or salt or cattle it's always been technology for making our wealth today available for consumption tomorrow. Throughout history various monies have always co-existed along a continuum of soundness meaning, good money to kind of bad money and they've always been subject to competitive network effects like any competition.*
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> *Given enough time, including right now, no money is absolutely the best money. On all dimensions there are always trade-offs some are better some are worse some are better at this some are better at other things. It also means that all money is temporal, no money has ever been or ever will be forever including bitcoin will not last forever.*
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> *Money is just a good like any other good but what makes money as a good unique is that we value it not for its own sake but for its prospective exchange utility. This means we hope the vessel, whatever we choose to store our money in, keeps its value long enough so we can trade it in the future for stuff we actually want.*
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> *Nobody actually wants green little pieces of paper, nobody actually wants bitcoin either. What we want those things to do is to hopefully allow us to trade them for things in the future we actually want – a vacation, a college education, property, whatever so it's not that we want the money we don't want the money, we want what the money can do for us in the future, what we can trade it for…"*

In essence, Bitcoin is the strongest form of memory, and thereby money that currently exists. Bitcoin enables the sound governance of our money because you cannot manipulate the 'data' or 'memory' of what our money represents, i.e., our hard work and effort over time can be preserved and exchanged in the future.

Today, we are seeing fiat money (and therefore our data and memory) manipulated in unprecedented ways. Central banks have expanded their balance sheets materially since the GFC, and the Covid-19 pandemic only accelerated the trend. There is no doubt that the printing of money in large quantities will distort 'our memory' of what money is supposed to represent.

Are interest rates, at all-time historical lows, the consequence of a distorted monetary unit? Nobody can be sure. It is actually hard to even get a handle on the degree of the distortion because, unlike the Bitcoin ledger which can be verified independently, the current monetary system cannot.

If a Bitcoin Standard underpins the natively digital global financial system, then every asset allocator and financial adviser in the world will need to re-think asset allocation.

Cash in the current fiat-based local financial systems is programmed to lose value each year. If you sit in cash, you will not maintain your purchasing power. So, your financial planner will advise a low cash weighting, particularly in your younger years.

But under a Bitcoin-based global financial system, your purchasing power is maintained, and your cash (or Bitcoin) weighting will therefore be much higher. For example, Gold (the analogue version of Bitcoin) returned approximately 5.4% per annum over the 30 years to mid-March 2021.

By comparison, global equity markets, as measured by the Global MSCI All World Total Return Index, delivered approximately 5.8% per annum over the same period. It is crazy to think that a little shiny bit of metal that simply sat in a vault nearly outperformed global equity markets over a 30-year period.

The network value of Bitcoin has the potential to become exceptionally large — in the tens of trillions of dollars — as it consumes many traditional 'store of value' assets. This is because Bitcoin is likely to displace many asset classes that are acting as an inferior 'store of value' created to solve investor/consumer purchasing power problems in the first place.

Cryptocurrencies and Banks – moving to 'banking as a service' with legal certainty for digital assets

For traditional fiat-based local financial services such as Australia's big banks, the potential for significant disruption is being laid years in advance if they do not engage with the digital asset ecosystem. Some regions of the world are waking up to this possibility.

We are seeing a new type of bank being established to provide a trusted bridge between fiat and Bitcoin. In Wyoming in the United States, special purpose depository institutions (SPDI) have been enacted in legislation to foster a safe and secure banking environment to provide this bridge.

Avanti Bank (in which Holon is a shareholder) is leading the charge in this respect. This new Wyoming bank formed to serve as a compliant bridge to the U.S. dollar payments system and a custodian of digital assets. The Wyoming legislation allows the bank to meet the strictest level of institutional custody standards, creating a new, low risk way of banking in the future.

SPDI banks can accept USD but they cannot lend, thus no fractional reserve banking. In addition, digital assets such as Bitcoin are custodied under a 'bailment' arrangement where the bank does the safekeeping on your asset, however, ownership resides with the customer.

In essence, a new era of 'Banking-as-a-Service' is being ushered in to support the global digitalisation of financial services. Unlike traditional, local-based fiat banks of today, we expect SPDI's to be high returning, high growth and low risk. The very opposite of today's banking model.

As banking is homogenous globally, we would not be surprised if the model spreads around the world in recognition of the significantly lower risk profile. Avanti is also laying the groundwork to solve the substantive issue of the people guaranteeing the current banking system or the 'too big to fail issue'. The value that could be released by this development, i.e., sound money custodied by sound financial institutions is incredibly significant.

If Australia fails to engage in the global digitalisation of financial services, our banks and their shareholders may suffer the same fate as our local media companies. In particular, the United States in the last year has started to embrace crypto and digital assets, with one of the major banking regulators, the Office of the Comptroller of the Currency (OCC) giving banking the green light to engage in the global digital ecosystem.

In addition, states like Wyoming now enable asset managers (like Holon) to provide institutional grade product solutions for digital assets with legal certainty. We can see the groundwork being laid for the next Google and Facebook equivalents in the global digitalisation of financial services.

Unfortunately, Australia is yet to take a step. The problem is that financial services is our largest sector at 10% of GDP, and to not engage is putting the golden goose at risk.

Moving to a trusted model for our data – privacy and security assured

Centralised 'mega-cap' cloud services companies, such Amazon, Google, Alibaba and Tencent, are providing the digital infrastructure of the Web 2.0 age. However, a centralised service can never solve (in an absolute sense) privacy and security of your data. As soon as your 'data' is handed over to a closed third-party platform service, you are putting your trust in that centralised organisation.

Data leaks have become so common that they hardly make headlines anymore. In 2017, an Amazon Web Services S3 bucket was configured to let any AWS Authenticated User download its data, resulting in exposing the personal information of millions of Dow Jones customers.

A 2019 configuration error on Google cloud services disrupted services for up to four and a half hours impacting Snapchat, Vimeo, Shopify and Discord. This represents a single point of failure, where a central controller is compromised, your data could be compromised as well.

Tech giants are also moderating more and more content, raising significant freedom of speech issues. Facebook and Twitter banning Trump content and AWS shutting down Parler in January 2021 at the time of the Capitol Hill attack was the first time the government has been silenced by the media.

However, a new decentralised data model in Web 3.0 is evolving to ensure privacy and security of your data. San Francisco-based 'Protocol Labs' — a lab that develops and deploys research protocols — has developed an 'Airbnb' model for data storage through an open-source public network for data storage.

Your data is encrypted end-to-end and stored on a public network. This has been achieved by shifting data from location to 'content-based addressing' (a way to store information so it can be retrieved based on its content, not its location) while incentivising participants in the network to store data.

The protocol that enables this shift (from HTTP location- based addressing) is the 'InterPlanetary File System' (IPFS). The decentralised storage network — 'Filecoin' — provides the economic incentive to do so by creating a marketplace based on Filecoin tokens (FIL).

The economics of the Filecoin network are designed to achieve two main things: increase speed and lower the cost of data storage and retrieval on the internet. The FIL tokens turn what is effectively an over-the-counter market in centralised data storage today into a global commodity market supporting the most secure and cost-effective way of storing and accessing our data.

Today's cloud players are the largest companies on Earth. Each of them has committed to investing tens of billions to support the shift into centralised cloud services.

So how does a decentralised cloud network acquire the resources to compete with these established networks, even if the value proposition (privacy and security) is vastly superior? By providing a community-based incentive model for global participants to build upon an open-source model for data.

Under the Filecoin network protocol, up to two billion FIL will be issued by the network over the years ahead to incentivise participants. At US$52 per token in today's prices, the Filecoin network would be valued notionally at US$108bn, if all tokens were issued today.

Approximately 70% of all the FIL tokens will be issued to providers of the decentralised cloud storage over time. In the first few years (5-7 years), approximately US$23bn in FIL block rewards will be earned by cloud storage providers proportional to their storage capacity on the network.

Currently, there are nearly 1,486 cloud storage providers (or storage miners), 100+ organisations, 200+ new Web 3.0 projects and 5,581 developers contributing to Github (a code hosting platform for version control and collaboration that lets you and others work together on projects from anywhere) on the Filecoin ecosystem. Many of the cloud storage providers are also contributing capital and time, matching the block rewards.

When you add up the contributions from the global community supporting the ecosystem's development, you start to realise the resources employed have the potential to easily match the centralised cloud systems at an early stage.

The incentives enable the network to establish a significant baseline of useful data storage for Web 3.0 developers to build upon. Longer term, the Filecoin ecosystem is aiming to establish a Yottabyte of storage, which is approximately 1,000 times larger than the data storage within all existing centralised cloud providers (albeit growing rapidly) today.

In the Web 3.0 age of native digitalisation, we are going to need as much cost-effective, privacy-assured data storage as possible. Autonomous vehicles, for example, may end up consuming most of this storage alone. Given the value proposition and the size of the market, it is not surprising that the IPFS/Filecoin ecosystem is probably the largest early-stage ecosystem in the world.

Investment in Web 3.0 for wealth creation

The Filecoin/IPFS protocols for data, like the Bitcoin protocol for money, solve fundamental coordination challenges for human interaction at scale. In both cases, the protocols (or Web 3.0 internet infrastructure) enable trust when dealing with our data and money. Both solutions are fundamentally valuable for humanity and significant innovations.

Both Bitcoin and Filecoin directly or indirectly have the potential to benefit or significantly disrupt investment portfolios within a typical investor time horizon (5-7 years).

Bitcoin has the potential to disrupt global financial services, while Filecoin/IPFS infrastructure enables a more natively digital infrastructure where your data is owned by you, not Facebook, Twitter or Google. This has the potential to significantly change search, online advertising, and other core internet services today.

Five years ago, the network value of Bitcoin was less than US$10bn, compared to the near US$600 billion dollars in value today. In total, today's digital asset markets are trading close to US$1.3 trillion, or approximately 70% of the size of all companies listed on the Australian Stock Exchange (US$1.8 trillion).

Holon believes digital markets will be significantly larger in the next 5-7 years as the value propositions (mostly globally scalable infrastructure) are translated into easy-to-use customer interfaces. We see this happening with Bitcoin today, and the rest of the space will start to follow.

At Holon, we believe this is coming much faster than expected due to the natively digital implementation to which the public is now very familiar. After spending significant time and effort on the Web 3.0 space, we understand all the business models and value propositions are picking apart Web 2.0 in addition to the old-world economy. We have a saying at Holon - *"If you are not over Web 3.0, you don't understand Web 2.0"*.

In 2000, markets were excited about the prospects for the internet. However, the infrastructure was yet to be built and so led to a 'tech-bubble' for investors. Fast forward twenty years, the digital infrastructure is now essential for home, work and play.

Today's Web 2.0 Mega Cap Companies provide that infrastructure that are the new 'defensives' of the digital age. However, Web 3.0, just like Web 2.0, has the potential to accelerate the pace of change once again, with even larger game-changing innovations.

Given the strength of the value propositions (we highlighted just two important ones), we believe digital markets underpinned by Web 3.0 innovation will be substantially larger in the future. The opportunities and disruption that can result has the potential to materially impact investment portfolios.

Web 3.0 and Australian jobs

Recent findings from ***The Technology Impacts on the Australian Workforce*** report, prepared by artificial-intelligence (AI) analytics platform Faethm in conjunction with ACS[1], highlighted that emerging technologies driven by the Fourth Industrial Revolution (such as Web 3.0) are transforming all industry sectors. The report suggests that over the next 15 years that:

- 2.7 million Australian jobs are at risk of displacement from automation; and
- 5.6 million new jobs could be added to the Australian economy if our country is more engaged in the digital economy through appropriate policy and regulation.

Overall, we believe that the report is conservative in that there is an underestimation of the time-compressed scalability effects that occur with Web 3.0 innovations. Australia is poised on a rapidly approaching precipice where we are quickly left behind the rest of the world or boldly pivot to embrace the digital future. Either way, the choice is ours, but time is not on our side.

[1] https://www.acs.org.au/insightsandpublications/reports-publications/technology-impacts-on-the-australian-workforce.html

Specific recommendations to the Committee

Recommendation 1: a comprehensive and clear set of digital asset laws

Law and technology are discrete systems. For a new technology to attain wide adoption, the law and technology must be backwards-compatible. Recognising direct property rights for individual owners of digital assets of all types (virtual currencies, digital securities and utility tokens) that reflect the true nature of digital assets (directly owned, peer-to-peer assets) will lay a foundation to enable development of new global industries out of Australia.

Over the next 20 years as we transition from the 'internet of communication' into the 'internet of value', Holon believes Australia's largest sector, Financial Services, is materially at risk from disruption due to blockchain and related technologies. As a small country without scale (there are 54 countries larger than Australia out of the 195 that exist today), we need to be proactive in ensuring we are benefiting from the global digitalisation of financial services as opposed to being disrupted by this significant shift.

The Mega Cap Communication Services companies, like Google and Facebook, dominate today's internet of communication. Holon is already seeing the foundations being set for the arrival of new Mega Cap Financials to dominate the internet of value. Without comprehensive digital asset laws, Australian financial services companies are unlikely to be a part of the global financial services landscape.

Capital ultimately flows to where it is treated best. Formally, recognising the innovation in law and providing legal certainty for digital assets has the potential to attract significant capital investment (in the billions over time) into Australia.

As an example, Holon's distributed cloud service on the Filecoin network would benefit from legal certainty in regards designating what the Filecoin token ("FIL") that drives the network represents under law. Holon believes FIL would be defined as a utility token.

Having FIL defined in law would provide much needed clarity for institutional capital to invest in supporting the development of Web 3.0 infrastructure which provides an alternative to the centralised Mega Tech data platforms dominating Web 2.0. In simple terms for Web 3.0, Google and Facebook won't own your data, you will, and it won't need to be legislated, it will happen as result of technology enabling what society values.

We recommend studying the principals behind the digital asset laws developed in State of Wyoming (USA) as the reforms have been more comprehensive than anywhere in the world. The laws passed recognised the nature of the innovation while also learning from the mistakes of the past.

We also believe the Committee needs to understand the significance of the structural change that comprehensive digital asset laws will initiate. Many traditional financial services companies (Banks, Exchanges, etc.) are unlikely to welcome such reforms if the process Wyoming went through is any indication.

Recommendation 2: introduce a new type of digital bank – an Australian Depository Institution to provide basic banking to blockchain and businesses dealing in digital assets

There is an incompatibility issue between crypto assets and legacy banking systems. Traditional banks are not set up (operationally or technologically) to hold on-balance sheet assets such as bitcoin that settle in minutes with irreversibility.

Bitcoin has no operational fault tolerance. This is one reason why bitcoin inherently doesn't integrate well with existing banking systems, where clawbacks, transaction reversibility and operational fault tolerance are common. What's more, the structural features that protect against settlement risks in traditional finance don't apply to Bitcoin.

As articulated by Caitlin Long (Founder of Avanti Bank), there is a safe and sound way to integrate bitcoin and other Group 2 crypto assets into banking systems:

- Conduct all bitcoin activities in a ring-fenced bank that is either stand-alone or is a bankruptcy-remote subsidiary of a traditional (leveraged) bank;

- *Use no leverage in the bank*. No re-hypothecation of bitcoin held in custody. Hypothecation of assets held in custody is fine, but the bank must not permit greater than 1:1 leverage. Reminder - Bitcoin has no lender of last resort or clearinghouse;
- *Take no credit or interest rate risk within the bank*. Hold 100% reserves in cash, bills or similar short-term, high-quality liquid assets. The bank makes money on fees, which crypto fintechs have successfully done for years due to high transaction volume;
- Pre-fund transactions so that the bank settles second or simultaneously instead of settling first and thereby avoid "back door" leverage caused by a counterparty failing to deliver;
- Permit no collateral substitution or commingling in prime brokerage; and
- Design ICT and operational processes for fast settlement with irreversibility, complete with minute-by-minute risk monitoring and reconciliation processes.

A bank structured according to these guidelines should pose minimal risk to the payment system, regardless of the price volatility of bitcoin, because the bank is designed to withstand a bank run.

This new type of digital bank would essentially be a software platform with a bank charter, built to connect digital assets with the legacy financial system. The full reserve requirement (i.e., no fractional reserve banking) would mean all money (AUD) could be withdrawn at any point in time.

In Wyoming, digital assets custodied under Special Purpose Depository Institutions (SPDI's) are done so under a 'bailment arrangement', meaning the customer always retains the legal title to the digital asset. Thus, shifting the model to 'banking as a service'.

A digital bank structured in this way is taking on substantially less risk. Therefore, capital requirements are significantly less, reflecting the diminished risk to taxpayers.

The new digital banking structure would start us down a new banking pathway ('banking as a service') while addressing the 'too big to fail' issue. Importantly, this would provide a superior regulatory structure relative to digital asset competitors globally. Banks structured in this way would be ready for the introduction of new global payment rails (such as stablecoins) and central bank digital currencies.

Holon is a shareholder in Avanti Bank. We invested in Avanti because of its clear value proposition. We see Avanti as providing the safest banking and custody service for digital assets globally.

Holon is applying for a licence with ASIC to become our own responsible entity and launch a retail Bitcoin Fund using Avanti's custody solution for Bitcoin. Due to clear Wyoming laws and bank purpose built for asset custody (via SPDI's), we can discharge our legal duties with certainty. Ultimately, our preference would be to perform digital asset custody ourselves under similar banking arrangements in Australia.

It is important to note that Wyoming introduced Special Purpose Depository Institutions in part due to the response from the existing banking system not being prepared to bank digital asset related businesses. This has also been Holon's experience in Australia. For example, when Holon informed its Bank management of its plans to bridge into digital assets (starting with Bitcoin), they indicated the plans were not within their 'risk appetite'.

Post Banking Royal Commission and AML/CTF regulatory action taken against the banking sector, the risk appetite that authorised deposit-taking institutions (ADIs) have for providing banking services to digital asset businesses has deteriorated. Although ADIs may take the view that an individual business' approach to dealing in digital assets may be low risk, given the broader view of digital assets in the context of regulated banking services, banks are not willing to provide any services due to the perceived risks.

Holon is currently in discussions with a number of ADIs in relation to moving our core banking relationship. The process is not straight forward. The perceived career risk to bank management is high. While bankers are interested, they are hesitant to engage publicly in digital assets. This has forced Holon to consider offshore providers.

We believe legislation should be introduced (either as a standalone regime or under existing regimes (e.g., Banking Act, PSRA, AML/CTF Act) for the creation of a new class of ADI to deal in digital assets and service digital asset businesses.

As highlighted above, such a regime has already been implemented in the state of Wyoming (USA), with regulated entities referred to as SPDIs. A similar regime could be applied in the Australian context, with SPDIs limited to holding deposits and digital assets, but not lending money or using held assets as collateral for lending activities. That is, a prudentially regulated category of ADI or custody provider.

The digital assets held by the SPDI could be under a 'bailment' or similar custody arrangement, where legal ownership of the digital assets reside with the customers (given the ownership implications generally associated with holding digital assets). By creating a narrow authorisation (i.e., no fractional reserve banking) without the ability to rehypothecate assets, the risks to customer deposits and assets are significantly reduced.

Furthermore, we believe a SPDI could issue an AUD 'Stablecoin' or 'Digital Asset Stored Value Facility' with greater certainty and address customer risks in a commensurate manner. A completely native digital bank could foster and support the development of new digital assets across the economy (e.g., the eAUD).

Yours sincerely

Heath Behncke

Managing Director