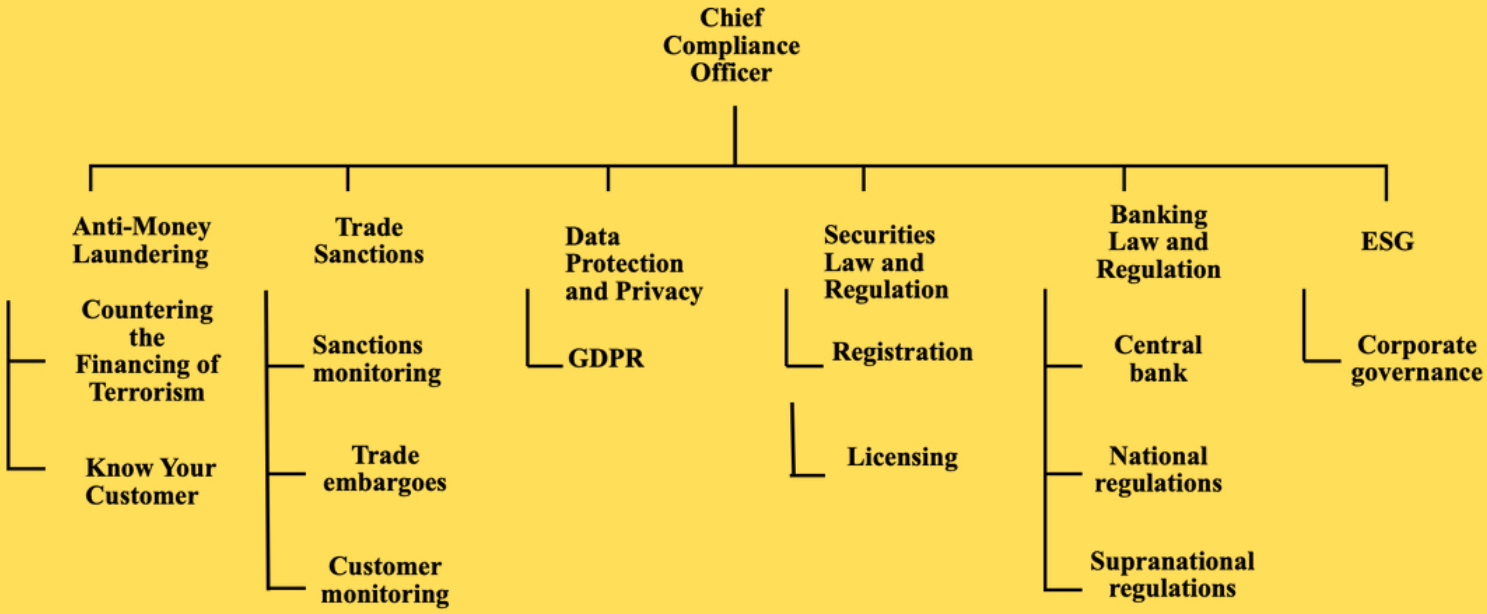
Future of Finance

DIGITAL ASSET CUSTODY:

REGULATION MATTERS



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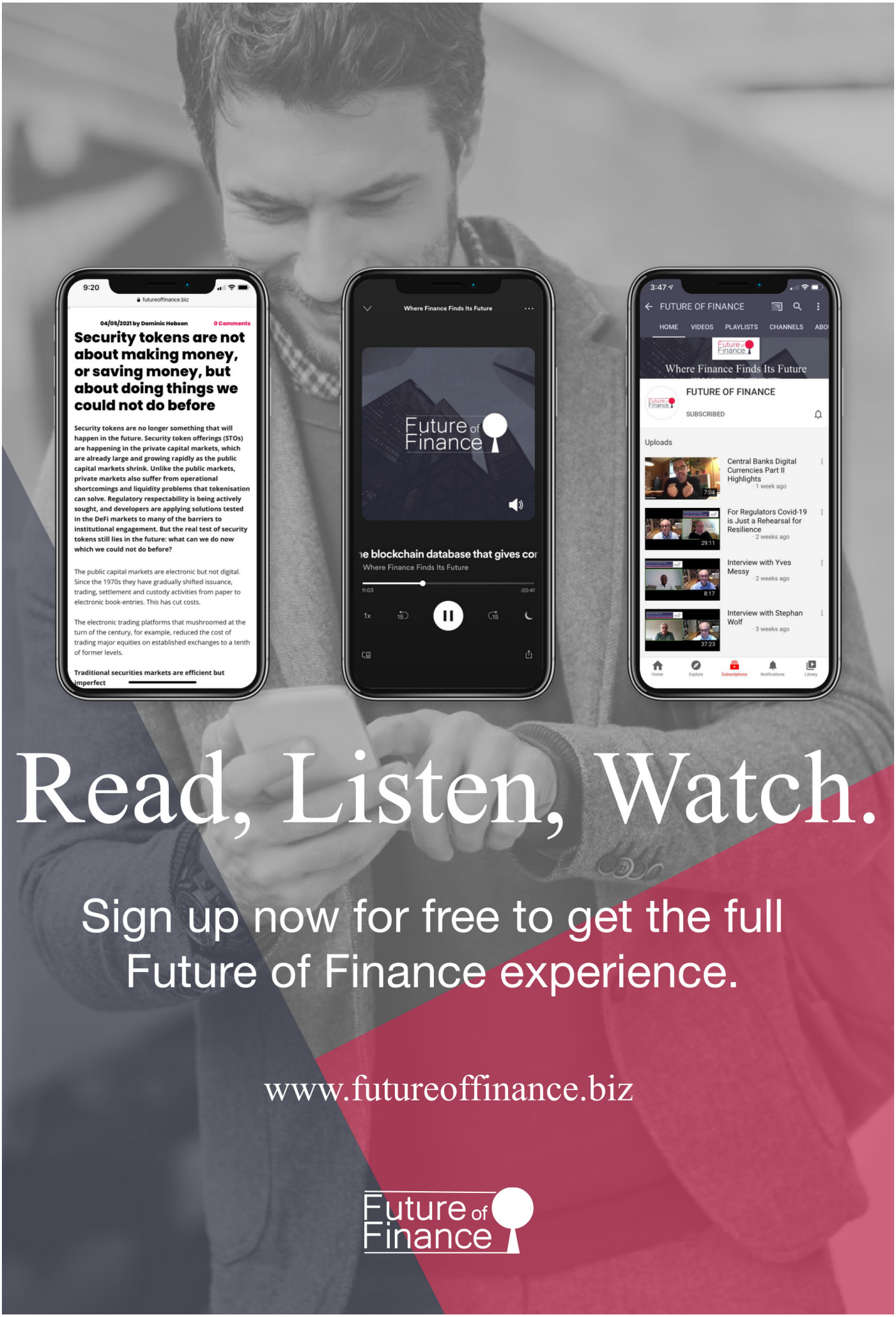

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1.0 INTRODUCTION

Welcome to the second edition of the Digital Asset Custody Guide (DACG). As promised in the inaugural issue, *Future of Finance* continues to monitor developments in the delivery, technology support, regulation and legal treatment of digital asset custody, and to map both new entrants and the process of consolidation that is now under way.

We maintain our thesis that in the long run mainstream (or traditional) finance will come to dominate the sector, with the turning point likely to occur as tokenisation of some combination of securities, funds, privately managed assets, real estate and physical commodities takes off into self-sustaining growth. For now, however, most assets in digital custody are still cryptocurrencies, and they remain largely in custody with purely cryptocurrency custodians. Digital asset custodians originating in mainstream finance are as yet immature.

That said, cryptocurrency and mainstream finance are on different trajectories. The cryptocurrency providers are undergoing a significant degree of consolidation with a few firms –BitGo being the most obvious - expanding in multiple directions. While the mainstream providers are at a much earlier stage in their development - with their offerings constrained not only by lack of experience but by the strict regulation of banks, especially in the United States - they are likely to be the principal beneficiaries of tokenisation, especially as institutional money enters the markets.

It is not surprising that mainstream providers are restricting their services to Bitcoin and Ether, and sometimes a handful of other cryptocurrencies. After all, Bitcoin and Ether, though less dominant than they were in 2021, still accounted for 70 per cent of the total market capitalisation of the cryptocurrency markets in mid-December 2023.[1]

The Decentralised Finance (DeFi) market, though potentially more interesting for mainstream providers, has only just begun to recover from its precipitous decline in mid-2022. At mid-December 2023, it was capitalised at US$74 billion[2], which is a trivial sum by comparison with the cryptocurrency markets (US$1.64 trillion) let alone the global equity (US$101.2 trillion in 2022) or bond markets (US$129.8 trillion).[3]

Importantly, the future of the third category of provider of digital asset custody services monitored by *Future of Finance* - namely, the vendors of digital asset custody technology - is increasingly being shaped by mainstream finance. A handful of technology vendors are assuming a dominant position, and their strategic focus is demonstrably on providing services and systems to large and established financial entities, notably banks. An implication is that self-custody, always proffered in the cryptocurrency industry as the key to safety and independence, is declining. These trends in digital

1 *https://coinmarketcap.com/charts/*

2 *https://www.coingecko.com/en/categories/decentralized-finance-defi#:~:text=DeFi%20or%20Decentralized%20Finance%20refers,in%20the%20last%2024%20hours.*

3 *Securities Industry and Financial Markets Association (Sifma), 2023 Capital Markets Fact Book, July 2023, page 8.*

asset custody technology will be explored further in the next issue of the DACG.

In this issue, we set the pattern for future editions of the DACG. Alongside reflections based on our databases of custodians and market events and developments – numbers and types, industry structure and location, new entrants and consolidation and regulatory licences obtained - sit in-depth feature articles.

In the features in this issue, we explore two topics. First, the legal changes in Germany and their effect on practice in the local market. Secondly, the likely course of two extraordinary measures affecting digital asset custody directly – Staff Accounting Bulletin 121 (SAB 121) and the proposed revision of the Custody Rule of the 1940 Investment Advisors Act – taken by the Securities and Exchange Commission (SEC) in the United States.

As the articles explain, Germany is an unexpected world leader in providing legal and regulatory certainty to digital asset issuers and investors, while the United States looks set to remain an equally unlikely laggard, mainly because of the constraints imposed by the complicated legislative process bequeathed by the Constitution and a quarrelsome political climate. The proposed revision of the Custody Rule of the 1940 Investment Advisors Act in particular has prompted an unusually broad wave of hostility from the American financial services industry.

Regulation is certain to remain a topic of enduring importance in the DACG. This is partly because cryptocurrencies are being brought within the regulatory perimeter in all major financial markets, but mainly because securities and funds laws and regulations are being adapted in every major financial market by lawmakers and regulators hoping to release the potential of tokenisation. The measures taken by the Monetary Authority of Singapore (MAS), the member-states of the Gulf Cooperation Council (GCC) and the Japanese government are of particular interest.

One gauge we will apply is the degree of consistency between regulatory measures taken in different jurisdictions. We are also cross-referencing regulations in particular jurisdictions to the licences obtained by digital asset custody providers in our database, and we include some preliminary insights from that exercise in this issue.

We hope you find the content insightful and useful. We welcome feedback on issues raised, suggestions for new topics to explore, and would be pleased to hear from any digital asset custodians and digital asset custody technology providers that would be interested to contribute to future issues or to complete the questionnaire which feeds our ever-expanding databases. The questionnaire can be found here and is open for completion at any time.

Piers Cardew
Head of Research

2.0 SUMMARY

The Future of Finance database of verified and categorised digital asset custody service providers and technology vendors continue to expand, though in terms of sheer numbers it falls far short of the total numbers of firms registered with regulators to provide a digital asset custody service.

The surge in the number of banks offering digital asset custody services, as recorded by the *Future of Finance*, almost certainly reflects information capture rather than a step-change in the industry. This is partly confirmed by a relative absence of banks in regulatory registration and licensing lists.

Though banks are often able to provide services under existing banking licences, publicly available information about the activities of the major global custodian banks in Europe, North America and Japan also suggests they are proceeding cautiously with investments in digital asset custody.

Leading non-bank digital asset custodians, which are now operating in bear market conditions in the cryptocurrency markets, are focusing on improving inter-operability for clients trading digital assets issued on to different blockchain protocols, through strategic partnerships.

Consolidation is likely to continue in the non-bank sector, and potential winners in the process of consolidation are emerging both within the industry (such as BitGo) and from outside it (such as Ripple). The long-term opportunity for consolidators lies in the institutionalisation of digital assets.

Globalisation is also evident, in the expanding physical presence of non-bank digital asset custodians across advanced economies, and especially in the growing appetite of institutionally-focused digital asset custodians on registering with multiple regulators and/or securing operating licences from them.

Some jurisdictions are more advanced than others in registering and licensing digital asset custodians. Germany is an unexpected leader in the field, with laws and regulations adapted to the purpose. Germany is also a European leader in issuance of digitised (not fully tokenised) securities and funds.

The foundation of the German success is the adaptation of existing laws to digital assets through an omnibus act popularly abbreviated to eWpG. The legal and regulatory infrastructure is detailed, distinguishing between centralised and decentralised ledgers and asset-backed and “native” tokens, and is demonstrably effective in encouraging activity.

Germany has hosted 62 “crypto-security” issues on to blockchain networks only to a total value of c. €200 million and c. 7,000 “digitised” twins of existing debt securities which continue to be serviced after issue via the traditional infrastructure of custodians and a central securities depository (CSD).

Both forms of issuance are nevertheless fractions of the whole in a market where an average of 400,000 traditional securities are issued every month. The volumes are nevertheless impressive by comparison with other markets in Europe, and have fostered a specialist registration industry.

Singapore, with multiple trading as well as issuance venues, is hosting more business, in terms of volume and value, than Germany. Although it has not established a separate regime for licensing and regulating digital asset custodians, Singapore is global leader in digital asset trading as well as issuance.

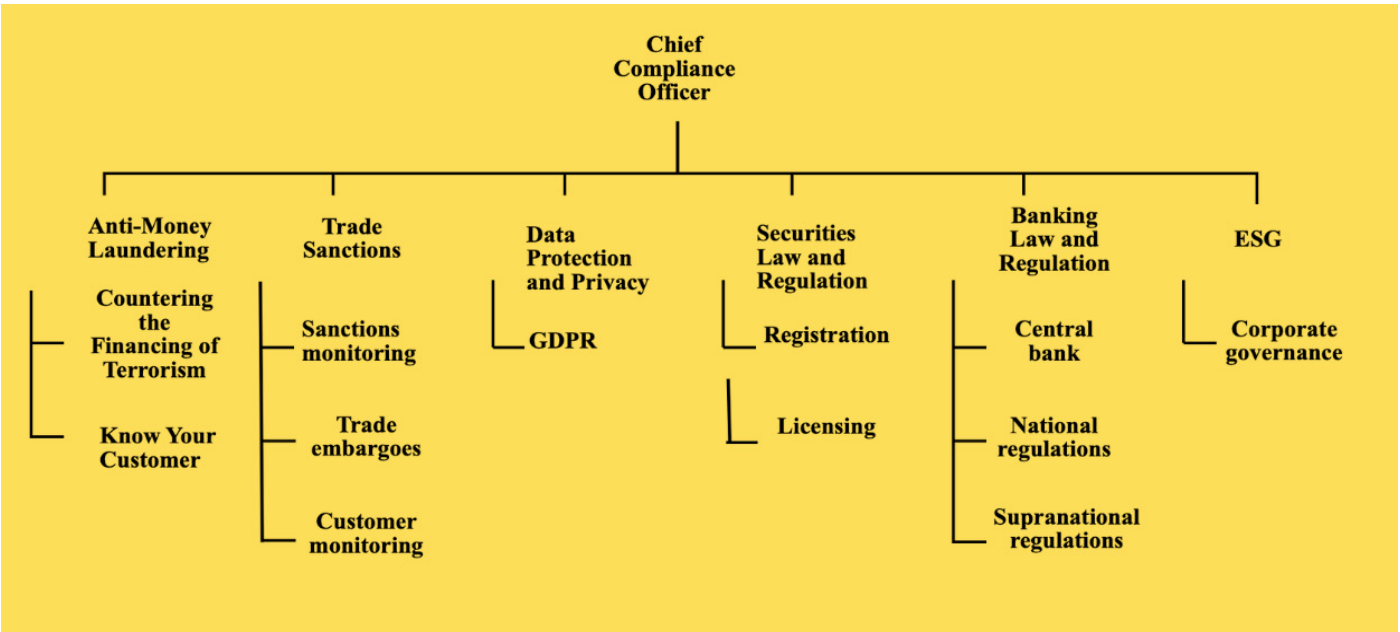
In clarifying the legal and regulatory status of digital assets and digital asset custodians, the United States finds itself behind not only Singapore and Germany, but the rest of the world. In two recent regulatory measures taken by the SEC – SAB 121 and revisions to the custody rule of the 1940 Investment Advisers Act, to turn it into a broader "safeguarding rule" - the United States may even be going backwards.

The stalled progress or even regression in the United States reflects inherent conflict between competing regulators; a litigious culture that traps problems and solutions in the courts, with even judgements failing to dispel legal uncertainty; and a legislature with an institutional bias against passing legislation quickly.

In addition, the current leaderships of both the SEC (the federal securities regulator) and the OCC (the federal banking regulator) have backtracked from the relative enthusiasm of their predecessors for cryptocurrency and digital asset custody innovations. SAB 121 and the Safeguarding Rule are further symptoms of this regression.

SAB 121 (which requires custodians, in contrast to longstanding practice and current BIS rules on the capital treatment of custodial assets, to recognise the fair value of assets in custody on both sides of their balance sheets) has inhibited the leading global custodians from offering a digital asset custody service.

This matters little in relation to cryptocurrencies but would be fatal to the tokenisation of securities and funds – because of the capital allocations banks would have to apply to custodial liabilities currently measured in tens of trillions of US dollars.



The SEC, which is under intense Congressional and industry pressure to overturn SAB 121, argues the capital implications are the responsibility of banking regulators. But neither the OCC nor the Federal Reserve has yet pronounced definitively on this issue, so SAB 121 remains *de facto* in force.

Industry opposition to the new safeguarding rule is more forceful and better organised than the opposition to SAB 121, encompassing the entirety of the American financial services industry, including industry associations representing local investment advisers and smaller banks.

The scale and intensity of the opposition reflects the ambition of the rule to ensure client cash is segregated, undermining deposit funding and net interest margin revenue, and to force investment advisers to formally contract with the custodians appointed by their clients.

Its widening of custodial liability to include discretionary investment management decisions, liabilities such as client credit, short positions, collateral and derivative contracts, previously out-of-scope assets such a real estate, commodities, syndicated loans and privately managed funds, assets already regulated by agencies other than the SEC and assets in custody with third parties such as sub-custodians and CSDs, is a further source of concern. There is anxiety that custodians will shun the custody business of investment advisers, particularly in digital assets.

Yet, for all the challenges SEC initiatives such as SAB 121 and the safeguarding rule have set, the future shape of the digital asset custody industry in the United States now lies primarily in the hands of the banking regulators and not their securities counterparts. As always, what eventually transpires in America will affect the rest of the world.

3.0 WHAT THE FUTURE OF FINANCE DATABASE SAYS ABOUT THE CURRENT STATE OF THE DIGITAL ASSET CUSTODY MARKET

The *Future of Finance* database of digital asset custodians currently records a total of 115 separate providers, 13 more than the 102 recorded in the first issue of the DACG and 27 more than the 88 recorded in the first iteration of the database in 2022.[4]

An interesting question is whether this increase reflects an increase in the number of providers or an increase in the number of providers recorded in the *Future of Finance* database. The question is harder to answer than it appears.

The number of firms around the world that claim to offer digital asset custody greatly exceeds the number in the *Future of Finance* database. The number of digital asset service providers (DASPs) registered with the *Autorité des marchés financiers* (AMF) in France for example, totals 99, of which 88 - or 89 per cent – offer digital assets custody as a service.[5]

Similarly, the register of Virtual Asset Service Providers (VASPs) maintained by the *Organismo degli Agenti e dei Mediatori* (OAM) in Italy records 128 firms, of which most say they provide digital asset custody services.[6]

Many of the listed firms are registered under more than one guise in registers and in multiple jurisdictions around the world, so the risk of double counting is high. Many provide digital asset custody as a service to clients that want it, while they are waiting for the real opportunity – tokenisation of securities and funds- to materialise.

A further problem is that in most countries - Germany is an exception - established banks do not need to acquire a specific digital asset custody licence but are instead granted an extension of their current licence or given permission to do digital asset custody business under an existing licence. In these cases, the only way to establish whether a firm is providing a digital asset custody service or not is when they announce publicly that they are.

To counter these challenges, only verified names are admitted to the Future of Finance database. In addition to the 115 firms now in the list, a steady flow are currently under review to assess whether they are open for business and actually providing digital asset custody services or digital asset custody technology services to institutional clients. Firms offering digital asset custody on a white-label basis, or as a sales channel, are excluded. Firms that outsource elements of the custody service, on the other hand, are admitted provided the entity remans legally responsible for all aspects of the service.

4 Future of Finance, *Digital Asset Custody: The Future Looks Like the Past, Issue 1, page 12.*

5 *https://www.amf-france.org/en/professionals/fintech/my-relations-amf/obtain-dasp-authorisation#List_of_DASPs_registered_with_the_AMF*

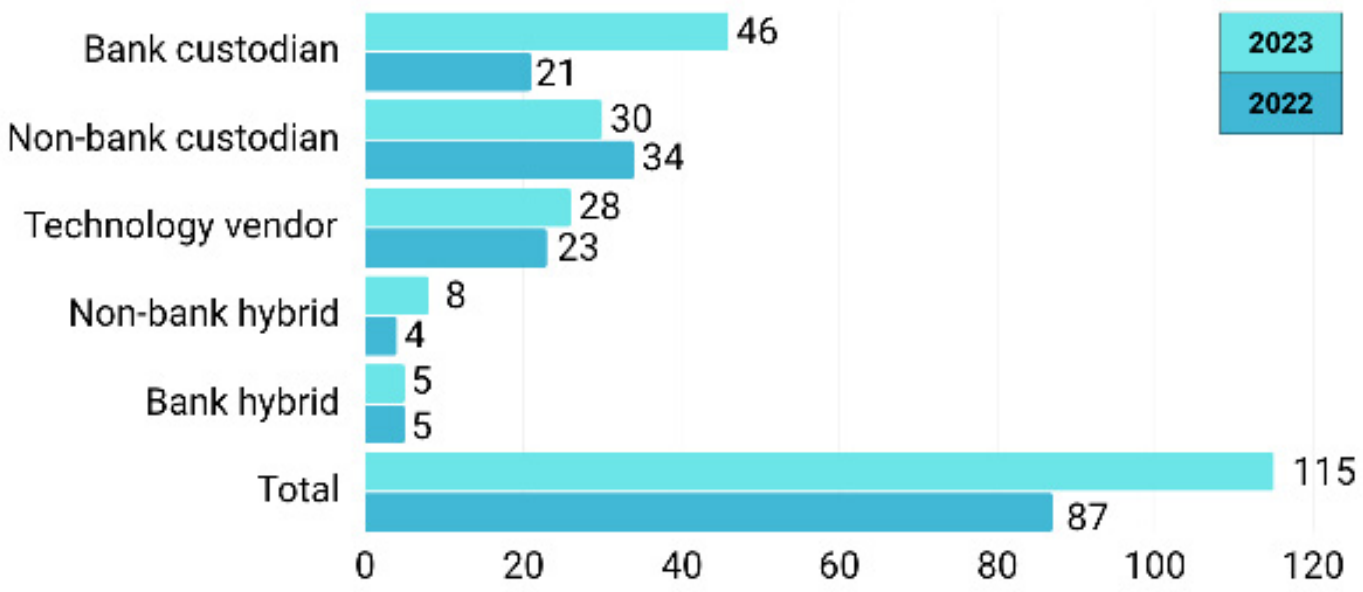
6 *https://www.organismo-am.it/elenchi-registri/operatori_valute_virtuali/*

At this point, it is safe to conclude that the digital asset custody industry is not expanding as fast as registrations with regulators might suggest. Instead, cryptocurrency intermediaries and trading platforms that provide wallets to customers are being brought within the regulatory perimeter through registration. A more accurate gauge of increased activity is the number of regulated banks providing digital asset custody services - but it offers an uncertain signal.

4.0 IS THE INCREASING ROLE OF BANKS IN THE DIGITAL ASSET CUSTODY MARKET FOR REAL?

In the last two years the number of banks recorded by the *Future of Finance* database as offering digital asset custody services has more than doubled (see Chart 1). In fact, bank entrants accounted for 90 per cent of the overall increase in the number of digital asset custody service providers in the database.

Chart 1: Increase in the number of digital asset custody providers 2022-23



Source: Future of Finance

This surge is almost certainly more apparent than real, in that it measures the increasing reach and sophistication of the *Future of Finance* database rather than increased commitment to digital asset custody by regulated banks.

Banks are not an easy group to monitor, because they can enter the market using existing or modified banking licences, and, with only a minority of clients demanding cryptocurrency custody services, they lack powerful incentives to publicise their activities. So their behaviour must be captured through media announcements, press contacts and press stories.

These have obvious limitations in terms of their explanatory power. However, it is clear that the overwhelming majority of banks entering the market are offering no more than custody of a limited range of the larger cryptocurrencies. The services are also designed to support a minority of private banking and institutional asset management clients that are active in the cryptocurrency market. Since the significant opportunity for regulated banks lies in tokenised securities and funds, the commitment is inevitably limited. It would be a mistake to misinterpret even a series of bank entrances of this kind for a secular trend.

Germany provides a useful check on this judgment because every digital asset custodian active in Germany has to be licensed separately by the *Bundesanstalt für Finanzdienstleistungsaufsicht* (BaFin). Though the press reports a steady flow of bank applications for licences to provide digital asset custody services in Germany, they are not visible in the BaFin data. Only one bank (Commerzbank, in November 2023) has actually received a licence from the BaFin.[7]

However, this might under-estimate the number of German banks active in cryptocurrency custody because the BaFin has allowed firms to operate for extended periods with a provisional licence (BitGo, for example, has held a provisional licence for more than three years).

Developments in France also suggest bank involvement is limited. The register of DASPs maintained by the AMF in France - whose chief criterion for admission is compliance with the fifth iteration of the EU Anti Money Laundering Directive (AMLD V), with which all banks comply already - records just three banks.

One is Banque Delubac & Cie, a limited partnership private bank that has offered a "crypto-asset service" since April 2022 using technology supplied by the Taurus Group. Delubac applied to the AMF for a licence just a month before launching the service; a full licence has yet to be granted.

Another Taurus client is CACEIS Investor Services, the custodian bank and fund administration arm of Credit Agricole that has set up what it calls a "Digital Asset Factory" to – importantly – service securities tokens in particular.[8] Its French entity (CACEIS Bank) received approval from the AMF to register as a DASP in June 2023.

The clear leader among French banks is Société Générale, whose FORGE digital assets subsidiary applied for registration as a DASP in September 2022, and in July 2023 became the first DASP to actually receive a full licence.

BNP Paribas Securities Services, a major global and sub-custodian on a global scale with US$13.6 trillion in assets under custody (AuC) in November 2023, which has shown a sustained interest in digital assets and which is now working with two major vendors of digital asset custody technology – namely, Fireblocks and METACO - is a notable absentee from the AMF list of DASPs.

In the United States, the major global custodian banks are also proceeding cautiously. Northern Trust has entered a joint venture with Standard Chartered Bank and SBI (Zodia Custody). State Street had a short-lived licensing agreement with digital asset custody technology vendor Copper that ended in March 2023. Citi announced in June 2022 it was developing digital asset custody capabilities with METACO, but no service was announced before METACO was acquired by Ripple.[9]

However, Citi Securities Services did announce in September 2023 that it was providing custody of the digital assets created on the Singapore-based BondbloX Bond Exchange (BBX), a blockchain-based platform for fractionalised bonds. Citi was already the custodian of the underlying bonds but is now also custodying the digitised fractional bonds. This is expected to encourage institutional clients

7 *https://portal.mvp.bafin.de/database/InstInfo/institutDetails.do?cmd=loadInstitutAction&institutId=157322*

8 *See CACEIS News, CACEIS' Digital Asset Factory - the future of asset servicing, 9 May 2023, at https://www.caceis.com/whats-new/news/spotlight/article/caceis-digital-asset-factory-the-future-of-asset-servicing/detail.html*

9 *See page 29 below.*

to trade on BBX.[10]

Despite the decision by The Office of the Comptroller of the Currency (OCC), in an interpretive letter of July 2020[11] permitting nationally regulated banks in the United States to custody cryptocurrencies, take-up is limited.

Anchorage Digital, which in January 2021 became the first federally chartered bank authorised by the OCC to provide digital asset custody services, remains the only one. Other contenders - Paxos and Protego – have had conditional licences withdrawn.[12] Custodian banks in the United States have relied instead on limited purpose charters, principally from the New York Department of Financial Services (NYDFS) – and the last NYDFS licence was issued as long ago as May 2021.

In Japan, the Financial Services Agency (FSA) published in October 2022 legislation agreed by the Japanese government that allows the trust banks – the major domestic custodian banks in Japan - to offer cryptocurrency custody services.[13] But activity is limited.

Mitsubishi UFJ Trust and Banking Corporation, the trust banking arm of MUFG, the largest bank in Japan, announced in August 2023 a partnership with cryptocurrency wallet provider Ginco. Importantly, MUFG is also the founder of Progmat, a security token platform, so its longer-term vision of the opportunity is clear.

In short, the increase in bank activity in digital asset custody recorded by the Future of Finance database is not illusory, but probably exaggerates the degree to which banks as a group are increasing their commitment.

quis custodiet ipsos custodes?

Juvenal, Satire VI,
lines 347-8

10 *Citi press release, Citi to Become First Digital Custodian on BondbloX Bond Exchange, 15 September 2023 at https://www.citigroup.com/global/news/press-release/2023/citi-to-become-first-digital-custodian-on-bondblox-bond-exchange*

11 *https://www.occ.gov/topics/charters-and-licensing/interpretations-and-actions/2020/int1170.pdf*

12 *See page 61 below and Future of Finance, Digital Asset Custody Guide: The Future Looks Like the Past, Issue 1, page 25.*

13 *https://www.fsa.go.jp/en/newsletter/weekly2022/511.html*

An Article by Reed Smith

ReedSmith
Driving progress
through partnership

The role of intermediaries in safeguarding digital assets

Key Takeaways

- Digital assets raise novel questions in law as to whether intermediaries can legally hold digital assets on behalf of others and, if the answer is yes, how intermediaries can do so, given that digital assets are data and often held on distributed ledgers.
- If the owner of digital assets loses his keys, he is likely to lose the corresponding digital asset, making digital assets similar to traditional bearer bonds, and the management and safekeeping of the keys to digital assets crucially important.
- Owners of digital assets increasingly make use of third party custodians rather than self-custody wallets, but the differences between digital asset custody and traditional custody and the types of custodial service provider is challenging for regulators as well as investors.
- If a third-party custodian fails, the ability of an investor to recover their assets will depend on whether the investor has a contractual or a proprietary claim against the custodian as an intermediary in respect of the digital assets.
- Claims by investors against third-party custodians are further affected by whether and how the assets were segregated, whether the custodian used sub-custodians to hold or manage the keys to the digital assets, and whether the liability of the custodian is limited or capped.
- Under English law, judgments are making it clearer that digital assets held in custody are being held in trust on behalf of investors, but whether a custodian is a trust depends not only on contractual arrangements but how the relationship works in practice.
- The approach of UK regulators to digital assets is developing but remains behind other jurisdictions such as the EU, Singapore and Switzerland, all of which have already passed into law foundational legislation or will do so in the near future.

Authors: Tariq Rasheed and Romin Dabir, partners at Reed Smith.

Introduction

As the old adage, often misquoted and misunderstood, goes: “possession is nine-tenths of the law.” Leaving aside exceptions such as theft, fraud or mistake, there is an innate logic to ownership of an asset being derived from physical possession. English common law supports this view; ownership of an asset is best ascertained by identifying the person who exercises “control” over it. This control should ideally be both positive (e.g., having exclusive use of the asset) and negative (e.g., denying others from enjoying the asset).

Nevertheless, over the course of time human societies have worked hard in concocting arrangements that split ownership for a variety of reasons. An asset can be owned by multiple individuals. It is also possible for a person to hold an asset on behalf of someone else. That is, one person can be a legal owner and an entirely different person can be the beneficial owner.

There are innumerable examples. Before setting out to join a crusade, a knight passes ownership of his lands to his brother for safekeeping and expects them to be given back to him upon his return. A child inherits a hotel chain from his doting aunt and the court appoints a trustee to run the operations until the minor comes of age. School teachers pool their savings into a mutual fund that is overseen by a professional money manager who decides which securities to buy and when to sell them. A couple give legal title over their new home to the bank that has given them a loan to purchase it. And so on and so forth.

In the financial markets of common law jurisdictions, ownership is often splintered by the use of a trust (or a contractual or statutory arrangement that operates similarly to a trust). An intermediary such as a custodian or a depositary holds and safekeeps the financial asset such as a bond, share or derivative on behalf of investors. As the intermediary exercises factual control over the asset, legal ownership resides with it but with the investors having beneficial rights to the asset. Should the intermediary fail in its duties for any reason, the investors rely upon principles such bankruptcy remoteness and segregation to protect their beneficial ownership (that is, the property rights) over the asset.

Bond issuances are instructive. They can be issued in either bearer or registered form. In the former case, the bond was historically represented by a physical (typically paper) instrument. The person -- the bondholder -- possessing this instrument was entitled to interest and principal. He could sell the bond by giving the instrument to another person. Mainly since the 1990s, bearer bonds have been progressively dematerialised. This means that the physical instrument is held by a custodian. Investors participate in the bond indirectly by acquiring and trading rights against the custodian through a chain of intermediaries, with their entitlements represented in account-entry records and any transfers represented by way of book entries.

As the reader is well aware, digital assets continue to grow as a financial asset class. Not all investors want to hold (or are capable of holding) digital assets themselves and would prefer others to do so on their behalf. This raises the question as to whether intermediaries can legally hold digital assets on behalf of others. Even if the answer is yes (and it is yes at least as far as English law is concerned), this then gives rise to further questions as to how intermediaries can do so, given that digital assets are data and often held on distributed ledgers, the risks emanating from intermediary default and a rapidly evolving legal landscape.

This article discusses the following:

a. whether an investor has contractual or proprietary claims following the default of its intermediary;
b. whether a trust can be used to construct an intermediary relationship for holding digital assets; and
c. the differences between omnibus and individual segregation, and the attendant risks and benefits of either model

The building blocks of digital asset custody

"Not your keys, not your coins."

When an owner talks of having custodied his digital asset, what he usually means is that his private keys are with an intermediary. Keys are generated through the use of a string of very long, random, cryptographic characters which make them nearly impervious to replication. The public key is derived from the private key. The former is the address to which people send transactions and, indeed, any transaction can be traced to it. The latter allows the owner to initiate and authenticate transactions of his own in order to access the digital asset he has stored in his wallet on distributed ledger technology (DLT).

The owner's wallet contains both his public and private keys and has a wallet address linked to it. It is common for the wallet address to be a cryptographically hashed version of the public key, thereby making it easier to send digital assets to and from it. A digital wallet, therefore, is not dissimilar from an actual wallet which stores objects (e.g. cash, debit and credit cards, store cards) and so allows a person to engage in transactions.

Wallets fall into one of the following three general categories:

a. *Hot.* A hot wallet is always connected to the Internet. Whilst this makes the wallet easily accessible and so helps in permitting transactions to be executed efficiently, it also inevitably increases security threats such as hacking or phishing attacks.
b. *Cold.* A cold wallet (also known as a hardware wallet) is a physical storage device such as a hard disk or a USB stick and so not connected to the Internet. Whilst this lowers security threats, it necessarily slows down trade execution.
c. *Warm.* A warm wallet is a hybrid between hot and cold wallets. It is not continually connected to the Internet but can be connected when needed. It provides a greater level of security than a hot wallet since it stores private keys offline. However, it is less convenient since it requires manual intervention in order for it to be brought online.

No wallet is immune from security threats. If an owner loses his keys, he is likely to lose the corresponding digital asset. This is especially so given the pseudonymous nature of digital assets, which makes the tracing techniques used to recover traditional financial instruments far more difficult. In this regard, digital assets are very similar to traditional bearer bonds.

All this means that the management of private keys is vitally important.

Private key management

Keys can be managed in the following two ways:

a. *Self (or direct) custody.* The owner himself holds and is responsible for the safekeeping of his private keys. Whilst this gives the owner direct control over his digital asset, it also means he bears the attendant risks. If the owner loses access to his wallet or forgets his private keys, his digital asset will be most likely lost forever.
   Where the digital assets are held on a pooled basis, self-custody is impracticable. Furthermore, certain investor classes are mandated to appoint custodians. For instance, in the context of most fund vehicles (whether the fund vehicle itself is subject to regulation or not), a depositary is required to ensure that investors' entitlement to their interests in the fund is properly recorded. It is expected that the use of digital assets in connection with pooled investment vehicles, both to hold the underlying property of the fund and to record the interests of investors in the fund, will be widespread.
b. *Third-party custody.* The owner gives his private keys to a third-party intermediary for safekeeping. For practical reasons, it is usual for the intermediary to transfer the assets to its own name and so generate new keys.

Third-party custody of digital assets has been growing in leaps and bounds. According to a report by Blockdata, the size of digital assets under custody jumped seven-fold between 2019 and 2022 from US$32 billion to US$223 billion.

Entities are offering different sorts of custodial services. Indeed, some of these services are not custody in the traditional sense but services such as the "sharding" of keys so they are held by multiple individuals for additional security. Such custody-like services can still result in some form of control (positive and/or negative) being exerted over the digital asset. As we will see later, the blurring of lines between traditional custody services and custody-like services is creating challenges for UK regulators as to the extent to which digital asset intermediaries ought to be regulated.

Third-party digital asset custody can be divided into one of the following three categories:

i. *Direct custodians.* These entities fit the traditional mould of intermediaries mentioned above as they exercise factual control (both positive and negative) over digital assets. They include traditional custodial banks, exchanges and digital asset managers.
ii. *Custodial technology services providers.* These entities provide software and/or hardware devices to owners of digital assets to undertake self-custody more securely. They do not exercise positive control (which resides with the owner) but they can potentially exercise negative control. For example, an error in the programming of a wallet provider could result in the private keys being accidentally deleted or being transferred to another person.
iii. *Hybrid service providers.* Hybrid service providers include entities who provide both direct custodial services and, separately, other technology services. This

captures entities who are providing "multi-signature" (or multi-sig) services. A shared custody service is created due to the private key comprising different "shards" and different shards being capable of being shared by the owner and the service provider. The service provider is not capable of exercising unilateral positive control but it can potentially exercise negative control by, say, losing its part, or shard, of the private key.

Determining the nature of the investor's claims against its intermediary

2022 saw high-profile failures of digital asset exchanges and lending platforms such as BlockFi, Celsius Network, FTX and Voyager Digital. FTX's failure has raised vexing questions regarding conflicts of interest, market conduct and operational resilience. It has also demonstrated that integrated business models – currently prevalent across the ecosystem – can result in complex and sometimes reinforcing risk profiles.

Unsurprisingly, insolvency risk is receiving special attention. Were an intermediary to fail, the investor would understandably expect to extract his digital assets from the insolvent estate (subject to first discharging any outstanding liabilities owed to the intermediary and other parties). However, under English law, this ability depends on whether the investor's relationship with his intermediary functions on a title transfer (i.e. a debtor-creditor) or proprietary basis.

In the former case, the term "custody" is misnomer as all property rights (that is, legal and beneficial title) over the digital assets are transferred by the investor to the intermediary against a contractual obligation for the intermediary to deliver *equivalent* digital assets to the investor. Should the intermediary fail, the investor can only claim against the intermediary for breach of this contractual obligation owed to him. In the absence of having been provided security, the investor will most likely rank as an unsecured creditor in the insolvent estate.

In the latter case, where the investor has a proprietary claim, the intermediary acts as the investor's trustee. Since the investor's digital assets should have been ring-fenced from the intermediary's assets (and, where individual segregation applies, from the assets of other investors), the investor should be able to exercise its beneficial rights and have the keys transferred to it. In other words, the investor's keys should be "bankruptcy (or "insolvency") remote".

The key difference, therefore, between the two intermediary relationships is whether the investor has a contractual or a proprietary claim against the intermediary in respect of the digital asset.

Although a trust is clearly more beneficial, title transfer arrangements are significantly more commonplace. They tend to be cheaper for investors due to the intermediary being given the flexibility to use the digital assets for its own purposes (e.g. by generating revenue through transaction and DLT validation activities or selling the digital assets to third parties) whilst only having an obligation to transfer the keys of equivalent digital assets to the investor at contractually pre-agreed times. In fact, title transfer arrangements may well be a necessity if the intermediary is offering market-making or prime brokerage services which require it to have full title over the digital assets.

The following issues further affect the investor's claims against the intermediary:

a. *Segregation*. Whether the intermediary has in fact segregated the digital assets

and, if so, whether such segregation is on an omnibus or individual basis. Where it is the latter, the investor is exposed to shortfalls in the holdings of other investors with which it shares an omnibus account (please see under "Segregation" below);

b. *Sub-custodians.* Whether the intermediary uses other parties (sometimes referred to as sub-custodians) to either hold or manage the keys of digital assets. As discussed above, hybrid service providers are commonplace and even direct intermediaries routinely use the services of specialist entities such as wallet or multi-sig service providers. If a sub-custodian were to lose the private keys, then clearly this would impinge upon the intermediary's ability to return them to the investor. This is especially so if the intermediary only has a contractual (rather than a proprietary) claim of its own against the sub-custodian. In such circumstances, the investor's proprietary claim against the intermediary would be significantly weakened in practice; and

c. *Liability limitations.* Whether the intermediary's liability has been contractually limited or capped. Whilst there are certain liabilities which an intermediary cannot contract out of (e.g., losses resulting from the intermediary's fraud), there are many others which can be watered down (e.g., losses resulting from sub-custodian default, losses resulting from hacking).

It is not unusual for the intermediary documentation to be unclear or even contradictory regarding the nature of the intermediary relationship. If a dispute between the parties arises (and assuming that English law governs the relationship), it is a matter of construction as to whether the investor has proprietary or contractual rights against the intermediary in respect of the digital assets. Unsurprisingly, in a recent paper (the "ISDA Digital Assets Bankruptcy Risks Whitepaper") the International Swaps and Derivatives Association, Inc. ("ISDA") recommended that parties establish at the outset the key aspects of the intermediary relationship such as its governing law, the nature of the investor's claim and whether and how sub-custodians will be used and the sort of segregation being offered.[1]

The digital assets working group of the International Institute for the Unification of Private Law ("UNIDROIT") in fact has recommended that an intermediary relationship should be presumed to be based on custody (in the sense of a trust) where an intermediary holds digital assets on behalf of investors, unless the contractual terms specifically contemplate a title transfer (or another form of) structure.[2] In the Law Commission's consultation paper on digital assets (the "Law Commission Digital Assets Consultation Paper"), while it sees merit in UNIDROIT's suggestion, the Law Commission has hesitated from recommending a law change to accommodate it due, in part, to the desire for safeguarding the diversity of custody and custody-like services that the digital asset industry offers to customers.[3]

Applying a trust to intermediary relationships

A trust relationship provides a key benefit to an investor; namely, that the keys of his digital asset

1 ISDA, *"Navigating Bankruptcy in Digital Asset Markets: Digital Asset Intermediaries and Customer Asset Protection"* dated May 2023, https://www.isda.org/2023/05/03/navigating-bankruptcy-in-digital-asset-markets-digital-asset-intermediaries-and-customer-asset-protection/

2 UNIDROIT, "*UNIDROIT PRINCIPLES ON DIGITAL ASSETS AND PRIVATE LAW*" dated May 2023, https://www.unidroit.org/work-in-progress/digital-assets-and-private-law/

3 UK Law Commission, *"Digital Assets: Consultation Paper"* dated 28 July 2022, https://lawcom.gov.uk/project/digital-assets/

should be bankruptcy remote. Furthermore, being trustees, intermediaries are subject to certain irreducible obligations, including a duty of care.

The value of these benefits naturally raises the question as to whether intermediary relationships over digital assets can be treated as trusts.

Thankfully, there is ever-increasing consensus within the legal industry that English law recognises digital assets as being the subject-matter of property rights and so capable of being held on trust.[4]

The Law Commission Digital Assets Consultation Paper summarises the following "three certainties" necessary for creating a trust under English law:

> "1. a clear intention by the relevant party or parties for the custodian to hold its title to specified crypto-token entitlements on trust for one or more beneficiaries (and resulting in the grant of equitable property claims in such entitlements to those beneficiaries);
> 2. sufficient identification of the beneficiaries that are the objects of the trust; and
> 3. sufficient identification of the crypto-token entitlements constituting the property interests that will be the subject matter of the trust."

The Law Commission's assessment is that digital asset intermediary relationships can satisfy these requirements. In particular, the commission has analysed *Ruscoe v Cryptopia*[5] where the New Zealand High Court recognised the existence of a series of trusts over digital assets held in connection with customer trading accounts (and to a limited extent the intermediary's own trading activity) at the Cryptopia exchange. The court was satisfied that the first of the "three certainties" (i.e., certainty of intention) was established by a combination of factors, including the structure and content of the internal database maintained by Cryptopia to track client account balances, as well as the fact that Cryptopia did not intend to, and in fact never did, use digital assets held on behalf of and in support of its customers' trading balances to engage in trading for its own account. This judgement can be contrasted from *Quonine Pte Ltd v B2C2*[6] where the Singapore Court of Appeal did not recognise a trust structure in connection with customer account balances held at the Quonine exchange for a variety of reasons, including Quonine's market-making activities, the lack of sufficient digital tokens being actually segregated and the exchange's risk disclosures which expressly warned its customers of the substantial losses they could suffer if Quonine became insolvent.

As is demonstrated by these judgements, whether a particular arrangement with an intermediary is considered a trust depends not just on contractual terms governing that arrangement but also how it functions in practice. This only highlights the importance for investors to conduct wide-ranging due diligence before entering into a relationship with an intermediary.

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4 UK Jurisdictional Taskforce, *"Legal Statement on Cryptoassets and Smart Contracts"* dated November 2019, https://technation.io/lawtechuk-panel/

5 Ruscoe v Cryptopia Limited (in liquidation) [2020] NZHC 728 at [156](b)

6 Quonine Pte Ltd v B2C2 Ltd [2020] SGCA(I) 02 at [148]

Segregation

Where an arrangement with an intermediary is intended to operate as a trust, the intermediary ought to segregate the investor's digital assets. Broadly, there are two segregation models:

a. *Individual segregation.* The investor's digital assets are segregated not only from the assets of the intermediary (i.e., house assets) but also the assets of other investors; and
b. *Omnibus segregation.* The investor's digital assets are segregated from house assets but pooled with the assets of other investors (or a sub-set of them).

Given the additional complexities arising by virtue of individual segregation, it is typically a more expensive model than omnibus segregation. On the other hand, it offers the investor greater protection as it is not subject to the risk of shortfall.

If done properly, segregation using either of these two models should occur not just at the level of the intermediary's books and records but also at the intermediary's wallet level. In other words, where an investor has opted for individual segregation, the intermediary's books and records should identify certain digital tokens attributable to the investor. To replicate the book entry records, there should be a wallet on the relevant DLT in the intermediary's name but recognising the investor's beneficial entitlement to the assets held within it.

Conversely, where an investor has opted for omnibus segregation alongside a certain class of other investors, the intermediary's books and records should identify certain digital tokens attributable to such class of investors, as well as each investor's entitlement to the particular assets that investor owns. There should also be a wallet on the relevant DLT in the intermediary's name but holding all the assets attributable to the class of investors. In the event that there are more claims by investors than the number or value of digital assets held in the wallet (e.g., due to the wallet being hacked and certain digital assets being lost), than any shortfalls will be shared between the relevant class investors, typically on a *pro rata* basis.

The UK's and the EU's regulatory trajectories[7]

MiCAR

In May 2023, the European Union ("EU") passed the Markets in Crypto-Assets Regulation[8] ("MiCAR") into law. MiCAR introduces a new regulatory framework for regulating the European crypto-asset industry. The regulation aims to protect consumers and investors and to mitigate risks to financial stability by, amongst other measures, requiring that crypto-asset service providers ("CASPs") obtain authorisation in order to operate within the EU.

CASPs are entities which engage in services or activities pertaining to crypto-assets, including the operation of a crypto-asset trading platform, the execution of orders for crypto-assets on behalf of

7 NB. In this section, we have referred to digital assets as "crypto-assets" as this is the terminology used in MiCAR's and the HMT Consultation.

8 Regulation (EU) 2023/1114 of the European Parliament and of the Council of 31 May 2023 on markets in crypto-assets, and amending Regulations (EU) No 1093/2010 and (EU) No 1095/2010 and Directives 2013/36/EU and (EU) 2019/1937

clients and the receiving and transmitting of orders for crypto-assets on behalf of clients. CASPs also include entities which provide custody and administration of crypto-assets on behalf of clients. The scope of these services betrays the umbilical cord linking MiCAR to MiFID II. In spite of these strong similarities, it is important to note that MiFID II only has the custody of financial instruments as an "ancillary service". The fact that MiCAR makes this service into a standalone service requiring authorisation in its own right effectively means that the regulatory requirements to which a crypto-asset custodian is subject to are analogous to those to which, say, a depository under the Undertakings for the Collective Investment in Transferable Securities Directive ("UCITS") and the Alternative Investment Fund Managers Directive ("AIFMD") is subject to. Another point of departure is that MiCAR has clarified that security tokens (e.g. digital bonds, digital shares) will continue to be regulated by MiFID II on the basis that they fall within the "financial instruments" definition of that directive.

At a high level, intermediaries that are CASPs will be subject to organisational, conduct and prudential requirements. They will have to satisfy requirements in relation to governance and have clear policies regarding the safeguarding of funds, business continuity, complaint handling, management of conflicts of interest and outsourcing.

Unsurprisingly, segregation requirements feature heavily in MiCAR for those intermediaries offering custody services. Ownership of crypto-assets held by the custodian must be clear from a legal perspective, with those crypto-assets belonging to clients being legally distinct from those belonging to the custodian. From an operational perspective too, crypto-assets belonging to clients must be held separately from the custodian's own assets to protect against creditor claims in the event of the intermediary's insolvency. On the DLT, this separation must be clear. Despite these high-level requirements, the application of these rules by Member States is likely to vary.

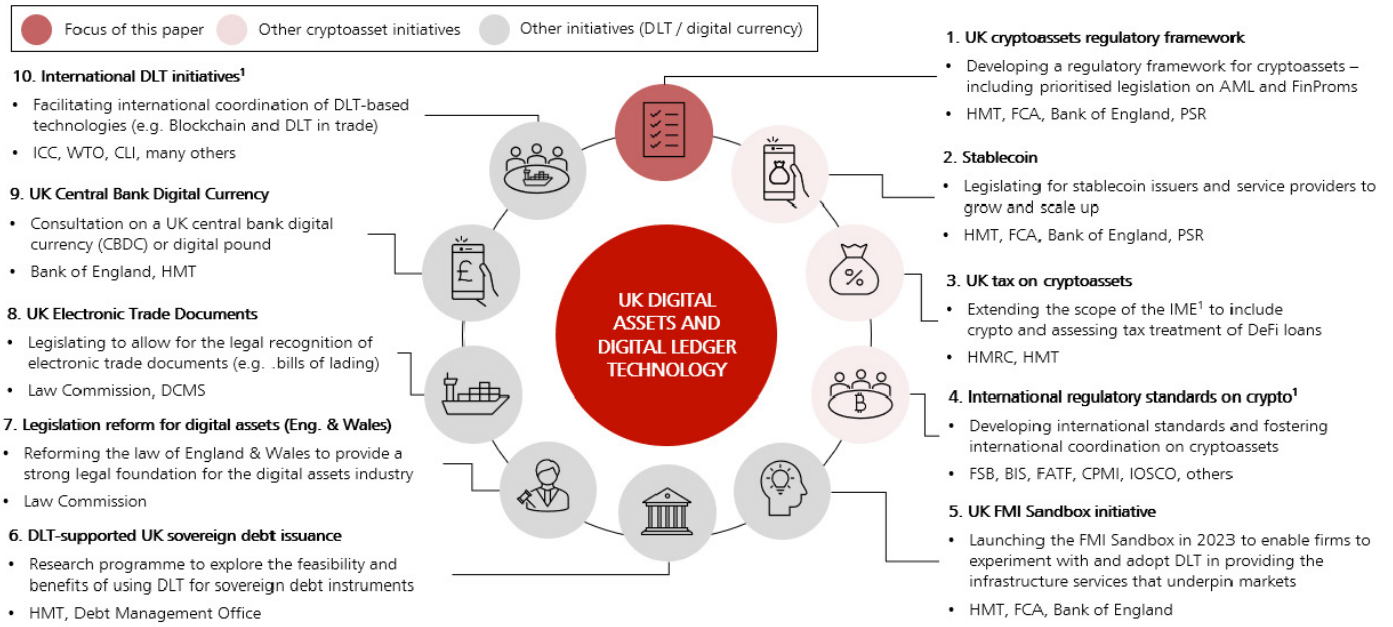
Furthermore, MiCAR provides that a custodian is liable for the loss of client crypto-assets or the means for clients to access those assets (i.e. via their private keys) where such losses are caused by an event or incident within their control. Where a client suffers loss due a wallet being hacked, the intermediary will only avoid liability if it can demonstrate that its security measures and business continuity plans were of a reasonable standard and consistently maintained. MiCAR caps the intermediary's liability to the market value of the relevant crypto-assets that are lost.
From a conduct perspective, intermediaries will be required to;

a. act honestly, fairly and professionally in accordance with the best interest of their clients and perspective clients;
b. provide information that is fair, clear and not misleading, with marketing communications clearly identified;
c. communicate clear warnings regarding risks associated with transactions in crypto-assets; and
d. meet prudential requirements, including holding certain amounts of capital in the form of either own funds or an insurance policy.

UK's regulatory approach

The development of the UK's approach to the regulation of digital assets is behind various other jurisdictions such as the EU, Singapore and Switzerland that have already passed into law foundational legislation or will do so in the near future.

Furthermore, the UK's regulatory approach is somewhat fragmented as various initiatives are being run by different regulators.



Source: HMT Consultation

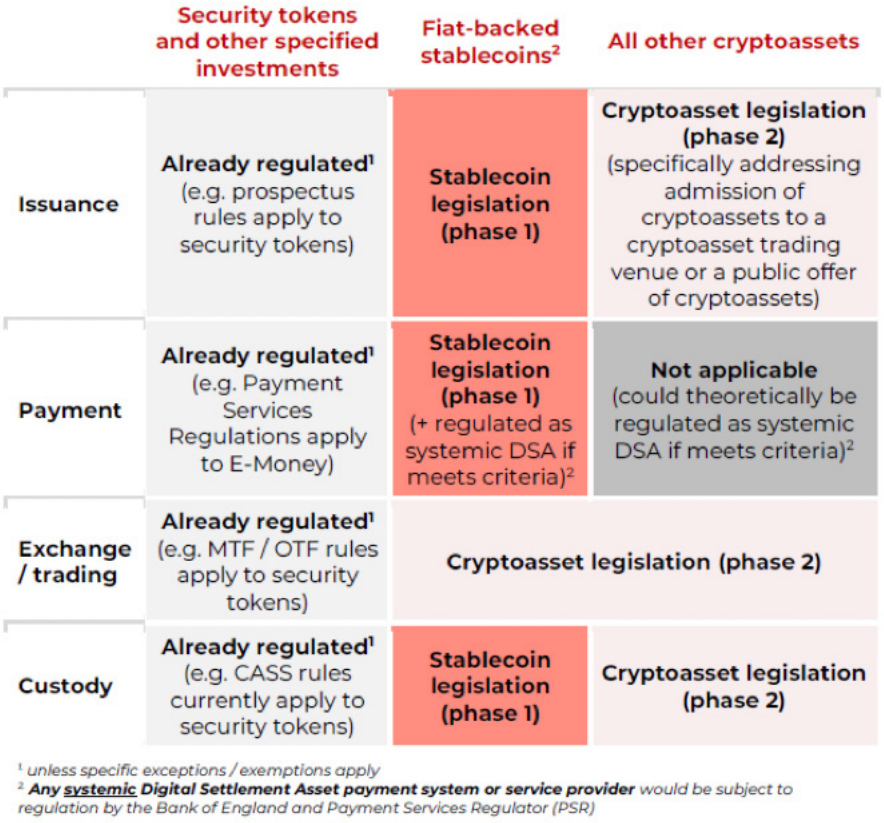
In October 2023, His Majesty's Treasury (HMT) provided its response to a consultation which it has conducted entitled "Future financial services regulatory regime for crypto-assets" (the "HMT Consultation"). The HMT Consultation provides helpful insight into the way the UK framework is likely to develop.

HMT proposes to regulate crypto-assets under the Financial Services and Markets Act 2000 ("FSMA"), as amended by the Financial Services and Markets Act 2023 ("FSMA 2023"). HMT will then be able to specify crypto-asset activities within the existing framework of the Financial Services and Markets Act 2000 (Regulated Activities) Order 2001 ("RAO"), or to designate them as part of the Designated Activities Regime ("DAR"). When such activities are carried out in relation to relevant crypto-assets, the intermediary carrying them on will be subject to regulation.

Crypto-assets will become subject to regulatory oversight through various phases, with Phase 1 focusing on fiat-based stablecoins (including their custody) and Phase 2 on other crypto-assets.

It is worthwhile to note that security tokens in digital form will continue to be regulated as "specified investments" under the RAO provided that their features mean that they are within the scope of this definition. Therefore, the existing custody rules applicable to "specified investments" will continue to apply, including the FCA's Client Asset Sourcebook ("CASS").[9]

9 The CASS provisions aim to protect investors' rights to their assets while a firm is a going concern such that, if and when an intermediary becomes insolvent, assets are returned to investors promptly and as whole as possible.



	Security tokens and other specified investments	Fiat-backed stablecoins[2]	All other cryptoassets
Issuance	**Already regulated**[1] (e.g. prospectus rules apply to security tokens)	**Stablecoin legislation (phase 1)**	**Cryptoasset legislation (phase 2)** (specifically addressing admission of cryptoassets to a cryptoasset trading venue or a public offer of cryptoassets)
Payment	**Already regulated**[1] (e.g. Payment Services Regulations apply to E-Money)	**Stablecoin legislation (phase 1)** (+ regulated as systemic DSA if meets criteria)[2]	**Not applicable** (could theoretically be regulated as systemic DSA if meets criteria)[2]
Exchange / trading	**Already regulated**[1] (e.g. MTF / OTF rules apply to security tokens)	**Cryptoasset legislation (phase 2)**	
Custody	**Already regulated**[1] (e.g. CASS rules currently apply to security tokens)	**Stablecoin legislation (phase 1)**	**Cryptoasset legislation (phase 2)**

[1] *unless specific exceptions / exemptions apply*
[2] ***Any systemic Digital Settlement Asset payment system or service provider*** *would be subject to regulation by the Bank of England and Payment Services Regulator (PSR)*

Source: HMT Consultation

As a result of this approach, intermediaries which are providing custodial services in respect of crypto-assets which constitute specified investments will need to comply with the existing requirements found in CASS. For crypto-assets that are not specified investments but nevertheless fall within the scope of the regime, new rules will be developed.

Due to this, HMT is proposing to apply and adapt Article 40 of the RAO for crypto-asset custody services, making suitable modifications to accommodate unique crypto-asset features, or putting in place new provisions where appropriate. In other words, a new regulated activity is proposed: "Safeguarding, or safeguarding and administering (or arranging the safeguarding or safeguarding and administering) of a cryptoasset other than a fiat backed stablecoin and / or means of access to a cryptoasset (e.g., a wallet or cryptographic private key)".

This is somewhat wider than the existing Article 40 activity as it as it would capture firms that only safeguard assets (e.g., firms that solely safeguard private keys). By contrast, to fall within the existing Article 40 activity, an intermediary must both safeguard and administer specified investments.

Intermediaries conducting this new activity will need to be authorised by the FCA and, as is the case under MiCAR, will be subject to various prudential, conduct and operational resilience requirements. CASS will be used as a basis for designing bespoke custody requirements for cryptoassets. Core components of the custody provisions are expected to be the following:

a. adequate arrangements to safeguard investors' rights to their crypto-assets (e.g. restrict commingling of investors' assets and the firm's own assets);
b. adequate governance and organisational arrangements to minimise risk of loss or diminution of investors' custody assets; and

c. accurate books and records of investors' custody assets holdings.

HMT has indicated that it intends to take a proportionate approach which would not impose full, uncapped liability on the intermediary in the event of a malfunction or hack that was not within the intermediary's control. Whether or not the Financial Services Compensation Scheme ("FSCS") will be applied to losses suffered by investors is not yet clear. Despite calls for HMT to legislate to extend FSCS protections to the crypto-assets held in custody, HMT has indicated that it will leave this decision to the FCA once it has considered, following a consultation.

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5.0 NON-BANK DIGITAL ASSET CUSTODIANS CONTINUE TO ADAPT TO A CRYPTOCURRENCY BEAR MARKET

In the non-bank sector, where all the providers originated in the cryptocurrency markets, the most interesting development is the burgeoning role of custodians in supporting access by traders and investors to digital assets on multiple blockchain networks. By allowing market participants to trade and settle transactions on multiple exchanges without assets moving out of custody, providers hope to boost transactional activity in the cryptocurrency markets.

The partnership announced on 3 November 2023 between two digital asset custodians - BitGo and Copper – illustrates this phenomenon perfectly. It brings together the Copper ClearLoop service (which allows users to settle trades on eight cryptocurrency exchanges off-exchange) with the BitGo Go Network (which also settles transactions on one cryptocurrency exchange in assets held in custody by the BitGo Trust Company). In theory, the combination creates network effects that will increase transactional activity.

The partnership with Copper ClearLoop is not the only step BitGo has taken in 2023 to adapt to changed conditions in the cryptocurrency markets (see Table 1). The firm has formed two other partnerships (with Swan and Hana Bank), both made and withdrawn a takeover offer for another digital asset custodian, secured a custody licence in Germany and raised US$100 million.

Table 1: A busy half-year at BitGo

November 2023	BitGo and Copper ally the BitGo Go Network and Copper Clearloop to allow trading on multipole exchanges without assets moving out of custody
Sepember 2023	BitGo and Bitcoin only exchange and wallet provider Swan form a Bitcoin-only trust company separate from the exchange to hold customer assets
Sepember 2023	BitGo and Hana Bank announce a partnership to develop custody services for clients of the South Korean bank
August 2023	BitGo raises US$100 million in Series C round at US$1.75 billion valuation (more than the US$1.2 billion Galaxy Digital Holdings had offered in 2022)
June 2023	BitGo agrees to rescue Prime Trust Company in Nevada, but the purchase is cancelled when the scale of the problems at Prime Trust emerged
May 2023	BitGo receives a German digital asset custody licence (i.e., not just for cryptocurencies)

Source: Future of Finance

BitGo is now the coming non-bank digital asset custodian. Although Coinbase has historically had more AuC – a function of its status as the dominant cryptocurrency exchange – BitGo is expanding in multiple directions.

It has not disclosed an AuC figure since November 2021 (it was US$64 billion versus the US$255 billion Coinbase had at the time) but if its share of the cryptocurrency market is aligned with its 20 per cent share of all Bitcoin transactions, it might easily be double that November 2021 figure. BitGo is also one the few non-bank custodians with substantial revenues from sales of technology.

But the real importance of BitGo is what its behaviour says about the likely development of digital asset custody. The tie-up with ClearLoop addresses what has become a major concern in the cryptocurrency markets in the wake of the failure of FTX: how to stake, lend and trade on cryptocurrency exchanges without exposing assets when there is a lack of central counterparties to trade against as well as a shortage of regulated exchanges. Though the "walled garden" solution is not unique to ClearLoop, the Copper network of exchanges is the most extensive.

Likewise, BitGo exemplifies a maturing approach to growing and valuing cryptocurrency businesses after the events of 2022. The company was reported to have filed a lawsuit against Galaxy Digital Holdings after Galaxy abandoned its bid – conceived at the height of the cryptocurrency bubble in May 2021 - to acquire BitGo. BitGo withdrew its own offer for Prime Trust in June 2023 when problems became apparent. The company was also able raise $100 million in a bear market for cryptocurrency businesses, indicating investors believe in the strategy.

And the strategy is likely presaged on acquisitions as well as partnerships because the consolidation highlighted in the first issue of the DACG continues.[14] BitGo will not be the only buyer. Indeed, as a potential consolidator, Ripple, the blockchain-based cross-border payments company with a market capitalisation of US$33 billion, is the most intriguing new entrant to the digital asset markets (see Table 2).

Table 2: Ripple

Sepember 2023	Ripple agrees to acquire Fortress Trust (NV), where it was already a shareholder, after Fortress suffered losses in a hack – but later terminated the purchase while agreeing to remain a shareholder
May 2023	Ripple acquires digital asset custody technology vendor METACO
August 2022	A Ripple spokesperson expresses interest in acquiring assets of Celsius Network

Source: Future of Finance

Ripple has become interested in digital assets relatively recently. In 2022 the company expressed interest in purchasing assets of the failed cryptocurrency lender Celsius Network, and in May 2023 paid US$250 million for METACO, the leading digital asset custody technology provider (METACO counts Citi, DBS, HSBC, Northern Trust, BBVA, BNP Paribas and DZ Bank among its clients). In September 2023 Ripple moved to buy Fortress Trust, a Nevada-based custodian that had lost customer funds to a hacker but dropped the bid two weeks after launching it. Fortress still seems to be operating but no news has emerged since.

The strategic logic behind the Ripple interest in digital assets is that the custody market will institutionalise at scale, creating a new revenue stream for the company. METACO, which has

14 *See* Future of Finance, *Digital Asset Custody Guide: The Future Looks Like the Past,* Issue 1, pages 46-48.

acquired a number of regulated banks as clients, is an obvious choice for any buyer that believes institutional money will transition to digital assets soon. In theory, METACO in turn gains access to the banks already using Ripple's cross-border payments services (though the payments and securities businesses of banks are rarely well aligned).

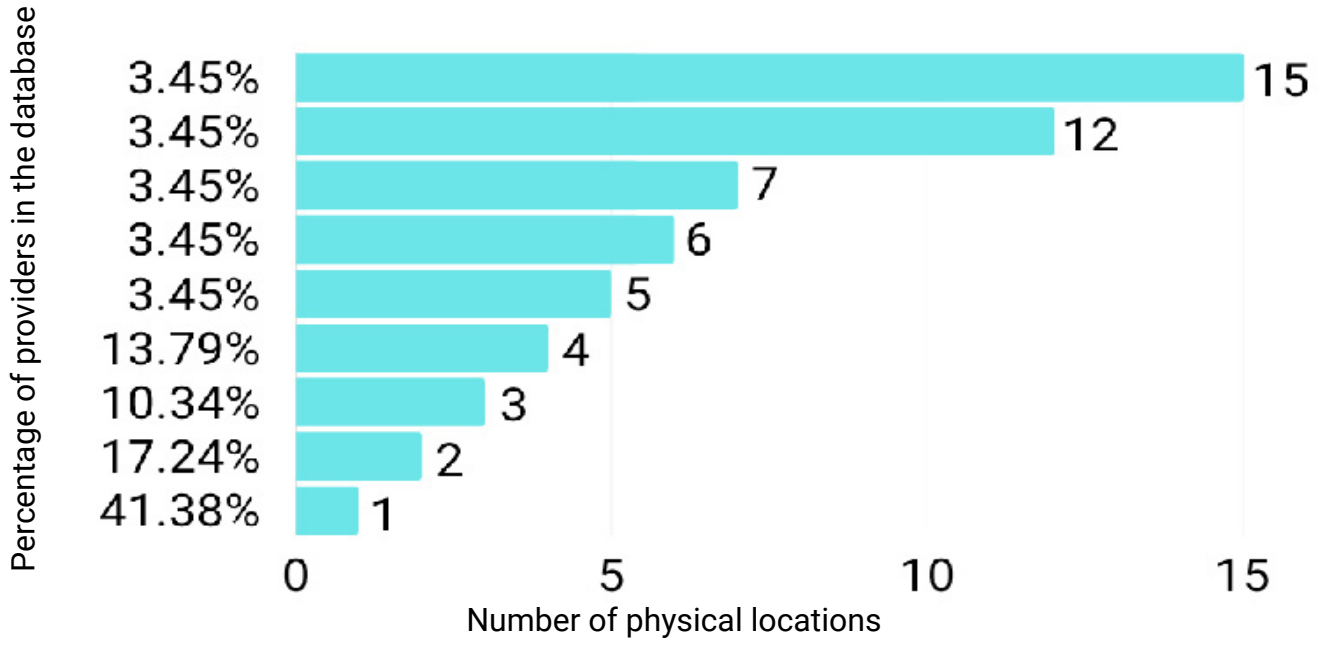
Lastly, BitGo illustrates the growing trend among non-bank digital asset custodians to secure operating licences in multiple jurisdictions. BitGo has two State level trust company licences in the United States (from the South Dakota Division of Banking and NYDFS), an anti-money laundering certification from the VQF self-regulatory organisation in Switzerland (which is supervised by the Swiss Financial Market Supervisory Authority (FINMA)) and now a digital asset custody licence from BaFin.

Other digital asset custodians are thinking and acting the same way as BitGo and Ripple. Zodia, the digital asset custodian controlled by Standard Chartered Bank, Northern Trust and SBI Holdings, announced the extension of its services to Singapore (September) and Hong Kong and Australia (in October) precisely because the three markets are institutional rather than retail. Even the new staking service offered by Zodia in partnership with Blockdaemon is aimed at institutional clients.[15]

Opening new operations locally, particularly for institutional business, requires operating licences. Zodia is already registered with the Financial Authority (FCA) in the United Kingdom, the Central Bank of Ireland (CBI) in Ireland and the Comission de Surveilance du Secteur Financier (CSSF) in Luxembourg. Custody is not yet a licensed activity in Singapore, but Zodia is an early candidate for the new licensing regime administered by the Hong Kong Securities and Futures Commission (SFC). New digital asset regulations are also about to be introduced in Australia.

An increase in the number of physical locations from which digital asset custodians offer services is a discernible trend in the Future of Finance database. More than half the providers in the database have more than one location and a third more than four (see Chart 2).

Chart 2: Physical locations of digital asset custody providers in the Future of Finance database

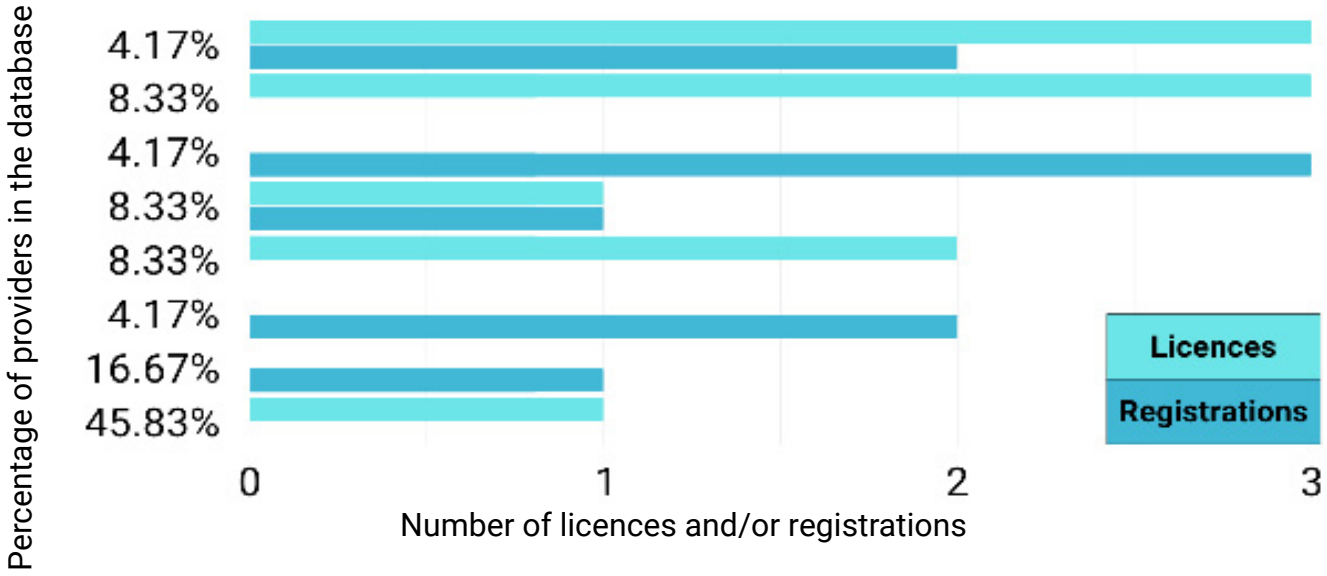


Source: Future of Finance

15 Press release, *Zodia Custody Launches Institutional Staking in Partnership with Blockdaemon,* 6 June 2023.

An increase in physical outlets has necessitated an increase in local authorisations - registrations and licences – to provide the services, especially as the number of markets putting formal regulatory regimes for digital asset custody in place (usually as a sub-set of wider regulation of cryptocurrencies and digital assets) has increased. More than a quarter of the digital asset custodians in the Future of Finance database have secured more than one licence or registration already (see Chart 3) and this is bound to increase as the industry consolidates and globalises.

Chart 3 Registrations and licences secured by digital asset custodians in the Future of Finance database



Source: Future of Finance

Komainu, the Nomura-backed institutional-grade digital asset custodian, is a case in point. In October 2023, the company announced that it had received approval from the FCA in the United Kingdom to register as a custodian wallet provider under the Money Laundering, Terrorist Financing and Transfer of Funds (Information of the Payer) regulations 2017.[16] Komainu, which was first regulated from Jersey by the Jersey Financial Services Commission (JFSC) in November 2019, had earlier acquired a VASP licence from the Virtual Assets Regulatory Authority (VARA) in Dubai and joined the register of VASPs maintained by the OAM in Italy.[17]

Hex Trust, another digital asset custodian aimed at institutional investors, has also expanded its regulatory permissions. In November 2023, following the example of Komainu, it obtained a VASP licence from VARA in Dubai.[18] Hex Trust, which has always pursued regulatory approval in all the jurisdictions where it operates, is also registered as a Trust Company Service Provider (TCSP) with TCSP Registry in Hong Kong, as a DASP with the AFM in France and as a VASP with the OAM in Italy. Hex Trust has a Capital Markets Service (CMS) licence from the Monetary Authority of Singapore (MAS) and has applied for a Digital Assets and Registered Exchanges licence in the Bahamas and a Payments Services Act (PSA) licence in Singapore.

16 Press release, *Komainu Receives Crypto Registration from the FCA,* 6 October 2023.

17 Komainu, like BitGo, has also joined the Copper ClearLoop network. *See page 28 above.*

18 Press release, *Hex Trust Receives Virtual Asset Service Provider (VASP) License from VARA in Dubai,* 15 November 2023.

6.0 GERMANY: THE UNEXPECTED LEADER OF THE DIGITAL ASSET REVOLUTION

Singapore has a good claim to be the jurisdiction that is leading the digital asset revolution. The Monetary Authority of Singapore (MAS) has certainly earned universal admiration for its dense and practical engagement with the private sector and the State at home and with its regulatory counterparts abroad to progress the development of digital asset exchanges and other infrastructures in Singapore and to build the support that cross-border activity requires.

In Europe, Switzerland – again with conspicuous levels of mutual support between the central bank, the private banks and the vertically integrated stock exchange – has emerged as the leading jurisdiction. *Finanzplatz Schweiz* has built infrastructure and made some progress in re-shaping securities laws and regulations to accommodate digital assets, though it is not yet completely clear what counts as a security token.

Luxembourg might argue it has achieved that clarity but, unlike Switzerland, it is a member-state of the European Union (EU), where uncertainty over securities tokens persists. The flagship Markets in Crypto-Assets (MiCA) Regulation, which came partially into force on 29 June 2023 and will not be fully in force until December 2024, explicitly excludes securities (as opposed to cryptocurrencies, Stablecoins and e-money). Instead, the EU is testing future possibilities via its so-called Pilot Regime for financial market infrastructures interested in developing digital assets services.

True, this has left the field open for national governments and regulators in EU member-states to set their own pace of reform. And Luxembourg is right to consider itself a contender for leadership. After all, the government has passed a succession of three "Blockchain Laws" that enable tokenised securities and funds to be issued, registered and used as collateral. These laws have persuaded a number of digital asset businesses – notably those in the funds sector - to establish themselves in the Grand Duchy.

What nobody had expected to find is that Germany – by the admission of its own leadership, a digital laggard in most areas – is leading both Switzerland (see Box 1) and Luxembourg in getting digital securities and funds issued into the marketplace, as opposed to being experimented with and merely talked about. By November 2023, Germany had hosted the tokenisation of no less than 56 bonds and funds. So the explanation of that success, whether it is more apparent than real, and how Germany might build upon it, is worth exploring.

Box 1: A comparison of digital asset developments in Germany and Switzerland

Switzerland has built a reputation as a magnet for FinTechs in general and cryptocurrency and digital asset talent and investment. It has certainly promoted that image and introduced policies designed to encourage the development of the market. Germany, on the other hand, has pursued a quieter strategy.

But quietness has not made it any less effective. A FINTECH Global survey of deal activity in FinTechs in the third quarter of 2023 put London far ahead (with 85 deals) but Germany (41) ahead of both France (30) and Switzerland (13).[19]

Similarly, in the AI Rankings prepared by Tortoise Media, Germany is only one place (eighth) ahead of Switzerland (ninth) overall but third in terms of scale – behind only Singapore and Israel - while Switzerland is in 16th place.[20]

Where the two countries are closely matched is in terms of legal infrastructure. Both are civil law jurisdictions that must pass new laws to make securities compatible with on-chain activities. Both adopted the same basic solution of an omnibus act plus amendment of multiple related laws.

In Switzerland, the Federal Act on the Adaptation of Federal Law to Developments in Distributed Electronic Ledger Technology (known colloquially as "the DLT law") amended four core laws and six others. In Germany, the *Gesetz zur Einführung von elektronischen Wertpapiere* (eWpG) also not only introduced electronic securities to Germany but made changes to existing laws.[21]

Structurally, where Germany and Switzerland part company is that the Swiss emphasise the integration of security tokens with regulated trading markets under the DLT law. Custody, on the other hand, is not integrated with the legal reforms because the Swiss Financial Market Supervisory Authority (FINMA) deals with custody of digital assets as part of its overall supervision of banks and securities firms. In short, if a bank offers digital asset custody, it must have FINMA approval.

The German approach, by contrast, is to treat custody of cryptocurrencies and digital assets as an explicitly separate activity, with no pre-approval for banks looking to provide a service. That said, the transitional arrangements in Germany for switching from conducting an unregulated custody activity to acquiring a licence to do so seem to be generous in terms of timing.

The German strategy recognised that "crypto securities" – "native," non-asset backed tokens that have no life outside the blockchain onto which they are issued - are a desirable end-state, but also emphasised practicability. Most importantly, Germany had to accept that under EU law "crypto securities" issued on to decentralised blockchain networks rather than into a CSD are not eligible to trade on regulated marketplaces. This is a major point of difference with non-EU Switzerland, where the goal was to drive security tokens on to regulated exchanges.

Overall, what is the outcome in the two markets and how do they compare?

Switzerland has SDX, a fully regulated digital asset exchange with a digital CSD attached. SDX works with Aktionariat, an exchange that specializes in issuing native shares of private companies in tokenized form. It lists more than 40 equity tokens, issued under the DLT Law, for purchase.

Switzerland also has Organised Trading Facilities (OTFs) run by regulated securities firms. They include OTFs controlled by Sygnum (a digital bank) and Taurus (a technology firm with a broker-dealer arm). Neither has a large volume of securities listed or traded. SDX has three digital bonds listed, one of which was issued by its parent company.

Given the effort that the Swiss authorities have put into crafting rules for a regulated, blockchain-based trading venue it is ironic that none of the current trading venues fall within their scope. SDX, for example, is licensed under the traditional rules but allowed to trade blockchain-based securities. Likewise, the OTFs remain alternative trading facilities.

Germany hosts digitally native "crypto securities" but on a small scale, with securities "digitised" at the issuance level only achieving much higher volumes. The German market is developing a supportive eco-system of registrars and advisors but secondary market trading is not yet considered, let alone expected. The custody licensing structure, on the other hand, is

19 https://fintech.globa 1/2023/11/16/u k-rema Ins-th e-leadl ng-fintech-h ub-i n-eu rope-amid-investment-slumpon-the-conti nent/

20 https://www.tortoisemedia.com/intelligence/global-ai/#rankings

21 The laws affected by the omnibus eWpG are extensive. They include the German Safe Custody Act (*Depotgesetz* – DepotG); KWG, the German Banking Act (*Kreditwesengesetz* – KWG); the Securities Prospectus Act (*Wertpapierprospektgesetz* – WpPG); the German Securities Trading Act (*Wertpapierhandelsgesetz* – WpHG); the German Bond Act (*Schuldverschreibungsgesetz* – SchVG); the German Pfandbrief Act (*Pfandbriefgesetz* – PfandBG); the Investment Firm Act (*Wertpapierinstitutsgesetz* – WpIG); and the German Investment Code (*Kapitalanlagegesetzbuch* – KAGB).

An Article by Archax

A NEW ERA FOR DIGITAL CUSTODY

Bridging the worlds of Traditional and Digital

The Evolving Custodian - Backstage to Centre Stage

20 years ago in the world of traditional capital markets, the appointment of a custodian was often considered very late in the process of getting a transaction to market. Custody and the safekeeping of assets were very much considered part of the plumbing works for transactions, and this role sat alongside other unexciting but essential roles of registrar, transfer and paying agent. A choice of known, trusted incumbents of banks and financial institutions provided custody services for traditional assets and functions were often bundled together with relatively minimal cost. The business worked as a high-volume, low-cost model while the ask of the custodian was to keep assets safe and facilitate the settlement and transfer of those assets. How to achieve this was pretty well established for traditional assets and securities, and the custodian was at its core a trusted, regulated counterparty who could face off against other institutions to ensure the safekeeping of those assets.

Roll on 2023 and, while market players still use incumbent custodians today in much the same way for traditional assets as they have always done, digital assets have required and enabled an evolution of the role of the digital asset custodian. The appointment of such a custodian is now at the forefront of any proposed transaction involving digital assets as there are many challenges to navigate throughout the entire lifecycle of these assets and getting it wrong could be catastrophic for investors and asset managers.

The role for the digital asset custodian becomes so much more compelling given the growth projections of this market and the trajectory of all assets becoming digital. The size of global digital asset custody market is currently valued at over $0.45trn and while that's a fraction of the size of the traditional markets today,[1] it is set to grow exponentially to over $1.6trn by 2028.[2]

1 As of June 2022, according to www.globalcustodian.com, the top four leading global custodians held US$136 trillion in AUC (BNY Mellon US$43 trillion, State Street US$38 trillion, JP Morgan Chase US$28 trillion and Citi US$27 trillion).

2 *Digital Asset Custody Report 2023*

What's driving demand?

An increase in demand for digital asset custodians is coming from institutions, particularly global banks and asset managers now firmly in the space.[3] Their participation is seen as an inflection point in adoption of the underlying blockchain and distributed ledger technology. It evokes confidence in the benefits to be derived from this technology, including increased transparency and auditability, with an immutable record of all transactions, providing a clear audit trail for regulators and investors as well as opening access for investors and for global distribution. It also enables efficiencies in processes, particularly for settlement and post trade actions, and lays a pathway for new types of products in digital form.

If we look a bit deeper, we can see that the institutional demand for custody services is actually across the full spectrum of digital assets from crypto to securities tokens, as well as traditional securities. Institutional players are looking for a single trusted third-party partner who can bridge the traditional and digital worlds to provide institutional-grade digital asset custody for both types of assets, thus enabling institutions to focus on their own core offering and manage their own risk.[4]

Self-custody as an option has little appeal to institutions because unlike traditional assets, the custody of digital assets introduces unique operational challenges – typically anyone can view wallet balances and transactions on chain, but only private key holders can transfer assets. These institutions would rather outsource the complex and evolving activities of the digital custodian than maintain the service in-house which adds no value to their core business. Such outsourcing is necessary if the industry is to scale.

Also of interest to these institutions, is putting their assets under custody to work and generating yield through cross-collateralisation opportunities, institutional-grade staking and digital securities lending. This is achievable through tokenisation and access to yield-generating products such as tokenised money market funds of large global asset managers. Many also want to trade their digital assets on a secondary market, and to do so with the same trusted counterparty. A few players in the market are able to do this, most notably Archax.

The ask of digital custodian providers is therefore not only to provide enhanced security for the safekeeping of assets (including the use of advanced encryption algorithms and multi-signature wallets), but also to bridge the worlds of traditional and digital assets through seamless integration and to offer a comprehensive suite of services that cater to the needs of multiple asset classes.

It is no small task to build this ecosystem and huge strides are being made, but we are not quite there yet – which in part explains the slow burn towards adoption. In fact, institutions cite one of the biggest challenges to adoption of the underlying technology is the lack of digital asset market infrastructure to support issuance, trading and post-trade activities.[5]

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3 *Blackrock, abrdn, Fidelity, Goldman Sachs, Citi, BNYMellon - Big Financial Institutions Are Adopting Crypto And Blockchain - What Does The Technology Offer SMBs?*, Forbes, 6 July, 2023

4 BNY Mellon, *Institutional Investing 2.0, Migration to Digital Assets Accelerates, Key Findings from Celent's 2022 Survey of Global Institutional Asset Managers, Asset Owners, and Hedge Funds, October 2022, page 9. See also BNY Mellon gives institutional investors 'crypto' survey* CoinGeek, 31 October 2022.

5 A senior official at the European Investment Bank (EIB), the biggest digital bond issuer to date, is reported have said that a key constraint has been the lack of mainstream custodians to support digital assets. See Future of Finance, *Digital Asset Custody: The Future looks like the past*, page 4.

How are current custody solutions addressing the demand from and needs of institutions?

It is true that few participants in the market provide custody across the full spectrum of digital assets and also provide services that enable yield and cross-collateralisation opportunities.

It is tough for investors and asset managers to assess counterparty risk and perform complete due diligence on many new entrant custodians who have varying degrees of registration, regulatory approval and asset security. Most crypto custodians can only handle crypto and, whilst sometimes registered, most are not regulated. Only a few are doing both, including Archax and recently DZ Bank.[6]

Most mainstream custodians do not yet handle crypto, although a number of traditional incumbents are starting to look at providing digital asset custody services with limited scope, including the world's largest custodian BNY Mellon, for certain US institutional clients, Citi and most recently HSBC for tokenised securities.[7] Even so, such incumbents cannot or will not yet provide the full suite of services to satisfy an ever-increasing demand and this in turn impacts progress for greater adoption of DLT and blockchain technology.

The failures of companies in crypto markets over the past 18 months have highlighted the consequence of lacking corporate governance, institutional-grade controls and processes, as well as insolvency-remote segregated structures. These failings have put assets at risk and the real losses have had significant impact on the market and suppressed the appetite for crypto and to some extent all digital assets. However, these were all human failings rather than issues with crypto instruments or technology. What remains robust is the underlying belief in DLT and leveraging blockchain technology. This period and the problems experienced also highlight the need for the use of best practice and standards, as well as regulation-shaping rules for those holding digital assets and how these assets are to be held.

Conclusion

Digital asset participation continues to increase among institutional investors. So too does the need to focus on market infrastructure, regulation and trading solutions. The role of a digital asset custodian to securely hold and store digital assets, is centre stage. A core pillar of that infrastructure and the function of that digital asset custodian includes the ability to handle crypto, regulated security tokens, other digital assets, traditional securities and other financial assets as well.

Investors and asset managers need to look at the regulated and registered status of a digital asset custodian as well as the level of corporate governance, controls and processes, which must be institutional-grade. The custodian's ability to provide insolvency-remote segregated structures for multi-assets is crucial, whether regulated or unregulated, treating both equally and providing robust institutional-grade cryptography for secure key management.

Finally, investors want yield generation through cross-collateralisation opportunities, institutional-

6 Custody - Securities (archax.com); *Germany's DZ Bank Launches Crypto Custody Service, Embracing Blockchain Technology,* Coinfeeds, 6 November 2023

7 *HSBC Plans Digital Assets Custody for Tokenized Securities,* Bloomberg, 6 November 2023

grade staking and digital securities lending. Few have this capability today. At Archax, as regulated custodian, broker and exchange, we address these needs as we forge a path forward for the industry, acting as a bridge across traditional and digital. For the industry to scale, incumbents and new players will need to coexist and evolve to be able to deliver as digital asset custodians on the opportunities presented through digital assets and the underlying technology. The journey is well underway and other challenges are also being worked through for implementing standards,[8] legal and regulatory certainty,[9] settlement and finality,[10] DLT governance and interoperability.[11]

8 *Gdf- https://www.gdf.io/working-group/custody/*

9 Including the EU Markets in Crypto-assets (MiCA) Regulation and the UK Financial Services and Markets Act 2023 (FSMA).

10 *Montis Digital https://montis.digital/*

11 *Project Guardian: https://www.mas.gov.sg/schemes-and-initiatives/project-guardian; Ownera: https://ownera.io/*

7.0 HOW THE GERMAN TOKEN MARKET DEVELOPED

The proximate causes of the unexpected emergence of Germany as a major host of tokenised security and fund issues were two separate actions taken by regulators and legislators as component parts of a broader strategy laid out by the German finance ministry (*Bundesministerium der Finanzen*) in a 2019 paper on electronic securities and codified in a formal "blockchain strategy" adopted by the government in 2020.

The first action was the publication in March 2020 by the *Bundesanstalt für Finanzdienstleistungsaufsicht* (BaFin), the German financial markets regulator, of a Guidance Notice to financial institutions on the custody of "crypto-assets."[22]

The Guidance Note codified the requirements necessary to obtain a digital asset custody (*Kryptoverwahrgeschäft*) licence in Germany – essentially, capital of €125,000 plus demonstrable competence to safekeep digital assets - from BaFin under the German Banking Act (KWG) (see Box 2). Importantly, the licence is not "passportable" within the EU and so cannot be used to provide services in other member-states.

Box 2: Digital asset custody in German law

Under section 1 (1a) sentence 2 no. 6 of the German Banking Act (*Kreditwesengesetz – KWG*), digital asset custody is defined as:

- Business conducted for others that involves the custody, management and safeguarding of "crypto-assets" or private cryptographic keys that serve the purpose of holding, storing or transferring crypto-assets for others; or
- The safeguarding of private cryptographic keys that serve the purpose of holding "crypto- securities" for others.

Institutions authorised to conduct either type of custody are also authorised to provide "crypto-securities" registration services within the meaning of section 1 (1a) sentence 2 no. 8 of the KWG. Companies can apply separately for a "crypto-securities" registration licence.

The Guidance Note was followed in June 2021 by a second action. This was a new "Act to introduce electronic securities" (*Gesetz zur Einführung von elektronischen Wertpapiere – eWpG*[23]) that, as the name suggests, enabled the issuance of electronic securities.

Under previous German law, securities needed to be represented by a physical certificate (*Urkunde*) that provided the foundation for the ownership and transfer of the security under German property law. The eWpG made it possible to issue bearer bonds, mortgage bonds (*Pfandbriefe*) and certain

22 Federal Financial Supervisory Authority (BaFin), Guidance notice – guidelines concerning the statutory definition of crypto custody business (section 1 (1a) sentence 2 no. 6 of the German Banking Act (Kreditwesengesetz – KWG), 2 March 2020.

23 https://www.bundesfinanzministerium.de/Content/DE/Gesetzestexte/Gesetze_Gesetzesvorhaben/Abteilungen/Abteilung_VII/19_Legislaturperiode/2021-06-09-einfuehrung-elektronische-wertpapiere/0-Gesetz.html

fund units in purely electronic formats. Importantly, securities in electronic form also included "crypto securities."

The eWpG also introduced the concept of a digital asset ownership registration function (*Kryptowertpapierregisterführung*) (see Box 3). Any firm providing such registration services must obtain a licence from the BaFin, which is contingent on showing capital of €730,000. This sum, being nearly six times that required of a digital asset custodian, testifies to the importance German regulators attach to the security and integrity of the register of holders of tokenised securities.

Box 3: How the digital asset registration function works under the eWpG

Under historic German securities law, securities needed to be represented by a physical certificate. The certificate proved ownership of the security and enabled it to be transferred under German property law. The eWpG, by enabling the issuance of electronic securities, required a different proof of ownership and transferability akin to that when bearer securities are dematerialised – namely, a register.

That register can take one of two forms. The first is a *centralised registry*, used to record (as the name suggests) electronic central registry securities). Its operation is straightforward. Under section 4 (1) of eWpG, a "central registry" must be established and maintained by a company licensed as a central securities depository (or CSD, which in practice in Germany means Clearstream Banking Frankfurt). If central registry securities are entered in the central register of the CSD in the name of that CSD, the securities automatically become book-entry securities of that CSD under section 12 (3) of the eWpG. This means that the requirements of Article 3 of the European Central Securities Depository Regulation (CSDR), permitting them to be traded on regulated exchanges within the meaning of the Markets in Financial Instruments Directive (MiFID), are met.

The second form a register can take is a *decentralised one*, used to record issuance, ownership and transfers of "crypto securities." Under Section 4 (1) no. 2 of eWpG, a "crypto securities registry" is a registry kept on a tamper-proof recording system in which data is logged in chronological order and stored in a manner that protects the entries against unauthorised deletion and subsequent modification. Although the law is intended to be technology-neutral, the term "cryptosecurities registry" clearly refers to blockchains or distributed ledgers that make use of blockchain technology. In simple terms, a crypto securities register is therefore a register for electronic securities based on distributed ledger technology within the meaning of section 16 of the eWpG. Decentralised registers of this kind do not meet the requirements of section 12 (3) of the eWpG, which means in turn that "crypto-securities" do not meet the requirements of Article 3 of the European Central Securities Depository Regulation (CSDR) and so cannot be traded on a regulated exchange within the meaning of the Markets in Financial Instruments Directive (MiFID). Operators of "crypto securities" registers, which are responsible for its proper functioning, can be either the issuer or an entity operating on behalf of the issuer. Both types are subject to specific supervisory requirements. Under section 1 (1a) sentence 2 no. 8 of the German Banking Act (*Kreditwesengesetz* – KWG), crypto securities registration is a financial service requiring authorisation, and it is subject to requirements regarding business organisation and the conduct of business. So an issuer acting as its own registrar needs to obtain a licence from the BaFin to do so – in practice, the issue of licences is likely to be restricted to "crypto-securities" registrars that also provide the service as a business to other companies.

Considered more broadly, the two actions taken - the custody guidance from BaFin and the electronic securities legislation - represented the culmination of three underlying trends.

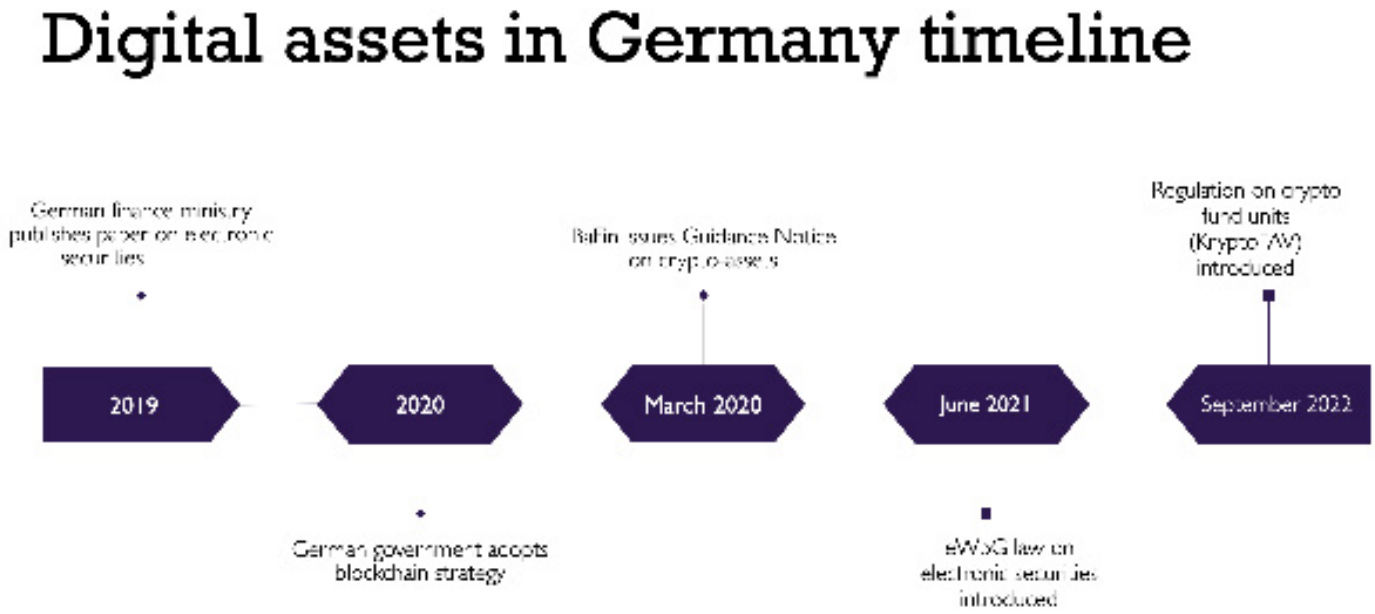
The first was growing interest among market participants in issuing and investing in tokens. After the Initial Coin Offering (ICO) boom and bust of 2017-18, the BaFin created a format that allowed security tokens to be issued in a form which were clearly securities under the existing securities regulations - and indeed followed the German Securities Prospectus Act. This legitimised a fundamentally different form of securities from the then-prevailing system of physical certification in global form, but the format never gained traction.

Secondly, the BaFin, in discussion with the banks, realised that the "wet ink" system of issuing global certificates for securities was slow, risky and costly. These costs and risks were largely invisible to

investors, since once the global certificate was lodged with Clearstream Banking Frankfurt as the central securities depository (CSD), trading and settlement could continue in a purely digital environment. Had this not been the case, pressure to dematerialise all securities and funds – as France did in 1984 - would have been intense. But physical certification remained a problem for German issuers, which generate circa five million new listings a year.

Thirdly, the customer losses associated with the ICO boom and bust, and the accompanying need for Germany to comply with the then-upcoming Fourth EU Anti-Money Laundering Directive, persuaded the BaFin to focus on providing a properly defined custody regime for cryptographically based assets, whether they were cryptocurrencies or payment, utility, security or fund tokens.

The intention was that all regulated financial providers must comply with a single custody regime for "crypto-assets" on a clearly defined basis. The BaFin Guidance Notice of March 2020 still provides a clear and formal framework for firms to become licensed providers of digital custody services and act as crypto-asset registrars as well, if they wish. As it happens, the registration function is at the heart of the reforms of German law to accommodate digital assets.



8.0 THE MARKET SINCE EWPG CAME INTO FORCE IN JUNE 2021

The combination of the Guidance Note on custody plus the eWpG accelerated issuance activity in digital assets in Germany. The German market has seen security tokens issued and custodied, and a similar trend is now occurring in the funds industry. Although the eWpG enabled German investment funds (*Sondervermögen*) to issue digital fund units without physical global certificates - as with bonds, the certificate can be replaced by a central electronic register – the law did not provide for issuance of digital fund units recorded on a decentralised blockchain-based ledger.

A new Regulation on Crypto Fund Units (*Verordnung über Kryptofondsanteile – KryptoFAV*), issued under the eWpG in September 2022, covers this gap. It provides a legal foundation for issuing fund units that are not centrally registered. In effect, it means that German asset managers can now issue investment fund units in digital form only on the blockchain-based ledgers. The first fund units governed by the KryptoFAV have already been issued by Metzler Asset Management Gmbh.[24]

But most of the issuance activity has taken place in securities rather than funds. At 23 November 2023, the BaFin database recorded 62[25] security tokens in issue. These are not "asset-backed" tokens with links to an equivalent traditional security but genuine "crypto securities" (see Box 4) that are issued on to and remain on a blockchain-based ledger.

Box 4: The difference between electronic centrally registered securities and "crypto securities"

Thanks to the eWpG, securities in electronic form now have the same legal standing in Germany as securities represented by a physical certificate. Further, securities in electronic form include "crypto securities." Quite how these concepts translate into the mundane activities of issuance, investing and trading can be confusing, so it is helpful to summarise the three routes an issuer can now take to market:

First, the issuance of bearer bonds via a ("wet ink") placement of a physical global note with a CSD (namely, Clearstream Banking Frankfurt) persists. Post-issuance trading and settlement take place in a purely digital - a *de facto* dematerialised - way.

Secondly, the issuance of securities in electronic form (under the eWpG) can take place in either of two forms:

- *Electronic central registry securities.* These are securities that are not evidenced by a certificate in accordance with the definition of securities in historical German law, but only in digital form (see section 4(2) of eWpG). The term "central securities registry security" covers three classes of electronic securities: (i) central registry securities held in collective custody at a central securities depository; (ii) central registry securities held in collective custody at a custodian bank; and (iii) individually registered central registry securities. As the certificates are digitally represented, trading takes place de facto in a dematerialised manner, dispensing with the physical global certificate used in the first route to market. Transactions are not recorded in an electronic register but by electronic book entries in securities accounts at Clearstream Banking Frankfurt as the CSD. This allows settlement of electronic central registry securities to make use of the same trading and post-trade service providers and market infrastructures as certificated securities. Confusingly, electronic central registry securities are also referred to as electronic securities, digital

24 Press release, *Metzler issues first DLT-based fund shares under cryptoFAV with Cashlink and fundsonchain,* 5 September 2023.

25 https://www.bafin.de/DE/PublikationenDaten/Datenbanken/Kryptowertpapiere/kryptowerte_node.html

securities and central registry electronic securities (with the "electronic" misplaced) but all electronic securities are central registry securities unless they are (see below) called "crypto securities."

- "Crypto securities." These are securities which are electronic securities issued onto a decentralised immutable register run by a BaFin-licensed registrar (although the regulation does not specify "blockchain" or Distributed Ledger Technology (DLT), it is clear that "crypto-securities" are securities issued on to blockchain or DLT networks only, with no counterpart in the traditional market. They are purely "native" tokens, not backed by assets held off the blockchain or equivalent and fungible assets in traditional form.

In short, any electronic security that is not called a "crypto security" is an electronic central registry security, whatever name issuers and their advisers choose to apply to it.

This means they are not fungible with any traditional assets and are not traded in a secondary This means they are not fungible with any traditional assets and are not traded in a secondary market (EU law forbids this unless the security tokens are issued into a CSD). As a result of their non-tradeability, and the lack of connectivity between blockchain networks and traditional infrastructures, the tokens cannot be used conveniently for traditional market purposes such as, say, collateralising an exposure. They exist, in effect, in a separate universe.

62 is scarcely a large number. The collective value of the "crypto security" issues, at circa €200 million[26], is not high either. In fact, the biggest issue (€60 million), managed by Hauck Aufhäuser Lampe Privatbank AG on behalf of Siemens AG in February 2023, accounts for a third of the total. So "crypto securities" (see Box 4) are as yet a fraction of the German capital markets.

Greater scale is being achieved through "digitisation" rather than "tokenisation" under the eWpG. Digitisation creates a digital twin of a traditional or real-world asset at issuance into the CSD - which in this case is D7, the digital asset CSD owned by Clearstream Banking Frankfurt. But issuance in digital form is the only digital aspect of the process.

After issuance, the digitised security can still be processed and used in the same way as a traditional security. It can settle in central bank money via the T2 payments system of the European Central Bank (ECB), for example, and be serviced and reporting by a global custodian. It can even be pledged as collateral. Any investor can buy the instrument, because its basic nature remains in line with that of traditional securities.

The question is why issuers bother to issue digitised securities at all if so little changes. The answer is that digital issuance is much cheaper and faster than the traditional method and does not require issuers to master new technologies and processes. Nor does it cut issuers off from investors, by forcing investors to adopt new technology and techniques to gain access to blockchain networks of the kind where "crypto securities" live.

D7 says it has hosted 7,000 digitised securities issues on to its (non-blockchain) platform, most of them structured notes for retail investors that are terminated quickly: the 4,000 still outstanding at end-November 2023 were worth €3.3 billion. 7,000 is more than 100 times the total number of "crypto security" issues and €3.3 billion 17 times the €200 million valuation of "crypto securities."

26 The value of issues is not disclosed by BaFin, so this number is an estimate made by a market participant.

It is nevertheless also a fraction of the total volume of securities being issued in Germany in the traditional way. An average of 400,000 traditional securities are issued in Germany every month - or five million a year, which is 714 times the total number of digitised securities issued in total so far.

62 "crypto security" issues is still significant by comparison with the levels of issuance activity in other digital asset-friendly markets in Europe such as Switzerland and Luxembourg. And they provide a foundation on which the German market can build an incremental transition to a tokenised future, including the construction of a scalable (and possibly blockchain-based) platform powerful enough to accommodate 400,000 issues a month.

D7 is working on increasing the capacity of its platform to accommodate larger flows of data between its digital issuance engine and the infrastructure and service providers of the traditional market already. A new application programme interface (API) was installed in June 2023, and a further upgrade capable of processing tens of thousands of issues a month is due to go live in March 2024. A purely blockchain version of the digitisation engine, using Ethereum on the Polygon network, is also planned for 2024.

In another encouraging sign for the future, the digital asset ownership registration function which is at the heart of the eWpG has prompted the emergence of specialist service providers. Judging by the registrars recorded in the BaFin list of 62 token issues, three independent providers – Cashlink, Smart Registry and E-SEC – currently dominate the market for licensed registration services, with an 80 per cent market share between them.[27] The biggest, Cashlink, accounts for just over 41 per cent of appointments.

Two registrars (Hauck Aufhäuser and Tangany) double as custodians. However, in the provision of custody services, the surge in token issues in 2023 has led to an increase in applications to BaFin from major German banks, and custody licences are being granted and expected to be granted. The first – granted to Commerzbank on 14 November 2023 – was so new at press time that it had not shown up in the BaFin database at month-end (see Box 5).

Box 5: "Crypto" custodians listed in the BaFin Database at 30 November 2023

1. BitGo Europe GmbH
2. Bitpanda Asset Management GmbH
3. Blocknox GmbH
4. Coinbase Germany GmbH
5. Finoa GmbH
6. Hauck Aufhäuser Digital Custody GmbH
7. Tangany GmbH
8. Upvest GmbH

Source: https://portal.mvp.bafin.de/database/instinfo/sucheform.do

In fact, the eight names recorded in the BaFin database bear witness to the growth of initially unregulated custodial businesses catering to cryptocurrency investors even before BaFin issued its

27 https://www.bafin.de/DE/PublikationenDaten/Datenbanken/Kryptowertpapiere/kryptowerte_node.html

Guidance Note in March 2020. Several banks and brokers not in the BaFin database say they have a digital asset custody licence, which suggests the database has not yet completely caught up with the progress being made.

This lack of alignment between market participants and regulators is predictable. The transition to a regulated service is inevitably untidy, as firms custodying cryptocurrences already are allowed to continue on a temporary basis while applying for full licence. BitGo, for example, was granted transitional approval before being awarded a licence in October 2023. But a system is in place to license digital asset custodians.

There is also an expectation that equities, which currently remain entirely confined to the traditional world, will be brought within the scope of eWpG in 2024. The Financing for the Future Act (*Zukunftsfinanzierungsgesetz*), whose purpose is to increase the attractiveness of Germany as a capital market, rests on the supposition that digitisation is crucial to the achievement of that objective. It will free companies to issue shares on to blockchain networks, instead of in certificated form, in the same way as the eWpG has made it possible to issue bonds and funds on to blockchain networks.

The benefits of eWpG lies primarily in the issuance function – and in Germany equities are a modest part of the capital market (which is why the Financing for the Future Act aims to recruit start-ups and small to medium sized companies (SMEs) as issuers and to incentivise equity ownership with tax breaks).

But bringing equities within the scope of the eWpG alongside debt and funds makes obvious sense. If issuers and investors can interact with a unified digital assets platform across equity as well as debt and funds, they are more likely to use it. Lower cost and complexity should also accelerate the transition from digitised securities to "crypto securities."

There remain two major hurdles to that transition. The first is that "crypto securities" are presently downloaded by the registrar to the issuer into a variety of blockchain protocols and blockchain networks, some of which are public and some of which are private. Clearly, if volumes grow, and especially if secondary market trading commenced, interoperability will become a serious problem. At this point a handful of firms dominate the registration process but a lot of major banks are looking at developing registration services, so fragmentation is a possibility. Either way, the industry or BaFin will need to resolve the inter-operability challenge if the business is to scale.

Secondly, "crypto securities" dispense with the need to issue securities into a CSD. Instead, the registrar manages an on-chain register of tokens in issue, and of holders of them. However, issuance into a CSD remains a requirement for admission to listing on a trading venue within the meaning of the Markets in Financial Instruments Directive (MiFID), the principal piece of EU law governing the securities markets.

This means "crypto securities" cannot trade on regulated exchanges, multilateral trading facilities (MTFs) or organised trading facilities (OTFs), which in turn means equity issuers - and especially those with large, frequently traded market capitalisations - will be deterred from issuing "crypto securities." Corporate bonds, by contrast, remain relatively illiquid anyway, and already trade OTC rather than in highly regulated markets.

9.0 WHY THE UNITED STATES IS BEHIND THE WORLD IN CLARIFYING THE REGULATORY STATUS OF DIGITAL ASSETS AND DIGITAL ASSET CUSTODIANS

If it is curious that Germany finds itself ahead of Switzerland and Luxembourg, it is even more curious that it finds itself ahead of the United States. Indeed, the first issue of the Digital Asset Custody Guide (DACG) argued that the United States sets the parameters for institutional custody around the world by virtue of weight of money and longstanding legislative prescriptions embodied in laws such as the Employee Retirement Income Security Act of 1974 (ERISA) and the Investment Company Act of 1940.[28] So it is all the more puzzling that, in the case of digital assets, the United States is a conspicuous laggard.

In most major financial jurisdictions around the world – France, Germany, Japan, Luxembourg, Singapore, Switzerland, the United Kingdom – governments have taken and are taking steps to regulate and domesticate all forms of cryptographic financial instruments, from cryptocurrencies to security tokens. The collapse of FTX, itself the culmination of a series of unfortunate events in the cryptocurrency and algorithmic Stablecoin markets, has accelerated this regulatory work.

Yet the United States, where FTX originated, is the major exception. Superficially, it is hard to explain. The country is host to almost all the leading forces in digital technology, from blockchain, through artificial intelligence (AI) and Machine Learning (ML), to quantum computing. By most measures of progress in blockchain-based developments, including cryptocurrencies and Stablecoins, the United States is a market leader. Yet progress in law and regulation has stalled.

This is partly a function of the way the United States regulatory system works. It has multiple, competing financial regulators, in the shape of the Securities and Exchange Commission (SEC), the Commodity Futures Trading Commission (CFTC), the Financial Industry Regulatory Authority (FINRA), the Office of the Comptroller of the Currency (OCC), the Federal Reserve System, the Federal Deposit Insurance Corporation (FDIC) and the Consumer Financial Protection Bureau (CFPB). Then there are dozens of separate financial services regulators in every State, of which the New York Department of Financial Services (NYDFS) has the highest profile.

The regulatory culture – like American culture in general – is also highly litigious. As a result, progress is ensnared in slow-moving court processes. The SEC case against Ripple and Ripple executives for allegedly raising money through the sale of an unregistered security in the form of its XRP token, for example, continued for three years before being partially settled. Legal uncertainty continues, with the partial settlement now being challenged in the courts.

28 See Future of Finance, *Digital Asset Custody Guide: The Future Looks Like the Past,* Issue 1, pages 22-24.

Indeed, 14 leading cryptocurrency businesses have, in conjunction with a law firm, created a Crypto Rating Council that has developed a decision tree methodology to review particular digital assets to assess whether they exhibit the characteristics that make it likely the assets will be classified as a security under the federal securities laws of the United States, and under the Howey and Reves Tests in particular.[29] It is an apt measure of the continuing uncertainty.

The Biden administration has in fact brought a noticeably less *laisser-faire* approach to cryptocurrency and digital asset market issues than its predecessor. The Executive Order on Ensuring Responsible Development of Digital Assets (EO-14067) of 9 March 2022, spawned a string of detailed reports discussing the pros and cons of digital money and digital assets from multiple arms of government – the Treasury, State, Justice and Commerce departments all contributed – as well as the main federal regulatory agencies. Their findings and advice are not yet being translated into law.

Even if they were, the United States is intrinsically slow to agree and pass legislation because it is hard to pass new laws in the United States at all. A bias against legislative solutions to new problems is built into the Constitution, whose framers were distrustful of central government. This structural obstacle is exacerbated in current circumstances by the partisan spirit of American politics and of course by time itself. There is a spatio-temporal limit to how many laws can be processed through the Congressional system (see Box 6).

29 See https://www.cryptoratingcouncil.com/asset-ratings

Box 6: Why it is so hard to pass digital asset legislation through the United States Congress

One reason the United States is lagging other jurisdictions in fostering the digital assets markets is the absence of supportive legislation. This is not by commission or omission. It simply reflects the fact that securing the passage of legislation through the US Congress is extremely difficult – and difficult by design, not accident.

The architects of the United States Constitution intended to make it difficult to pass laws, to discourage government overreach. In the modern era, the limited amount of time available to agree and pass legislation, especially on top of the recurring workload of both chambers of Congress, makes it challenging to get priority for any piece of legislation.

A basic difficulty is that any Bill has to be passed by both chambers of Congress - the House of Representatives and the Senate - before going to the President to be signed into law, or returned to Congress for further consideration.

An implication is that neither chamber of Congress can accomplish anything by itself. Either the House or the Senate can pass a Bill, but the other chamber can decline to take it up. On occasion a Bill may be passed by one chamber and approved without amendment by the other (though such agreements usually follow some form of discussion).

While it is not typical, the House of Representatives treatment of Obamacare illustrates what can happen. Between 2011 and 2017 the House voted to repeal all or parts of Obamacare 54 times. The last occasion was the only time in which there was a possibility the Senate would concur with the House decision – and it did not.

If the chambers pass competing Bills or one chamber amends a Bill significantly, Congress then enters a process called Reconciliation. Reconciliation involves teams from both Chambers trying to create a Bill acceptable to both Chambers. If the differences are too large the Bill will be dropped. But the creation of a reconciled Bill does not guarantee passage as each Chamber still has to approve it and Reconciliation negotiators do not always judge correctly what is acceptable to their members.

Historically, this is less of a problem in the House of Representatives, which affords individual members much less power than an individual Senator can acquire and hold. The House traditionally gives the leadership much more control. Votes all require a simple majority. Traditionally, party discipline in the House has been strong though currently this is clearly not the case for the Republicans.

The Senate, by contrast, affords individual Senators much more autonomy. A complex web of rules and procedures also allows individual Senators to stop business. For example, a single Senator has blocked all promotions in the United States military for more than nine months.

But the greater autonomy of individuals in the Senate also reflects the fact that the 100 Senators enjoy six-year terms and represent an entire State, making them less vulnerable to primary challenges in smaller constituencies. The 435 members of the House of Representatives, by contrast, are considered for reelection every even year - that is to say, every two years.

In both chambers, legislation is produced by the relevant committee (though jurisdiction between the various committees can be a matter of contention). In the House, appointments to committees are more in the gift of the leadership. Seniority is a major factor in Senate Committees in a way that is not true in the House. Each committee has the capacity to pass a limited amount of legislation only and any proposal must fight for priority in the timetable.

While the Chairman of a House committee has considerable control over what issues are considered for legislation it is much less absolute than in the Senate. Appointments to Senate committees are less under leadership control and, once on a committee, a Senator is hard to dislodge. Seniority on the committee tends to dictate leadership of Senate committees too, and the chair of a Senate committee has almost total control over what the committee will or will not take up. If there is a topic the Chairman objects to, there is little other legislators can do.

Sherrod Brown (a Democratic senator from Ohio), as Chairman of the Senate, controls whether there will be any legislation governing digital assets originating in the Senate. It is fair to say that Senator Brown is not known to take a particularly positive view of cryptocurrencies.

For the digital assets industry, the House of Representatives Financial Services Committee, traditionally the major source of financial services legislation, is much more enthusiastic. It has produced draft Stablecoins legislation and the outlines of more general “crypto-asset” legislation.

However, Senator Brown represents a formidable obstacle to progress. The best-known proponents of digital assets in the Senate are Kirsten Gillibrand (a junior Democratic Senator from New York who is on the Committee on Agriculture,

Nutrition and Forestry but not the crucial Commodities sub-committee) and Cynthia Lummis (a junior Republican Senator from Wyoming who is on the Banking, Housing and Urban Affairs Committee). They carry little weight in this political calculus.

So the fact that the House Financial Services Committee has agreed digital asset legislation is of limited relevance until a more general consensus in favour emerges across both chambers and the President supports a particular course of action. At that point, Senator Brown would likely facilitate legislation. But for the time being the attitude of Senator Brown means there is minimal prospect of any digital asset legislation emerging from the Senate prior to the November 2024 elections.

The power structures in Congress create other obstacles to progress. The House Financial Services Committee and the Senate Committee on Banking, Housing, and Urban Affairs, for example, have oversight of the Securities and Exchange Commission (SEC). But supervision of the Commodity Futures Trading Commission (CFTC) resides with the House Agriculture Committee and the Senate Committee on Agriculture, Nutrition and Forestry (a relic of the historic role of agriculture in developing the futures markets).

As a result, turf wars between Congressional committees reflect and reinforce turf wars between regulators. Digital assets have further exacerbated these rivalries. Most prominently, there is fierce contention over whether specific cryptocurrencies or tokens should be treated as securities (the SEC view) or as commodities (the CFTC view).

It would be misleading to describe the passage of legislation through the United States Congress as a lottery, but it is difficult to get legislation passed. So many pieces must fall into place at a time when there is room in the legislative calendar. It takes the most fortuitous coincidences of time, interest and opportunity to get a particular piece of legislation onto the statute book.

The time limit alone makes it a safe bet that no new laws affecting the cryptocurrency and digital asset markets will be agreed, passed and signed into law prior to the results of the 2024 Congressional elections (in which 33 Senate seats and all 435 seats in the House of Representatives are up for election) that will accompany the Presidential Election. A new Congress will not even start work until January 2025.

However, even if new laws are on hold until after the 2024 elections, regulators have scope to act. Indeed, they sometimes view the looming expiry of a Presidential administration as an opportunity to press ahead with innovations and ideas they favour. The decision by the previous leadership of the OCC in late 2020 and early 2021 to grant actual and conditional national trust bank licences to firms custodying cryptocurrencies is a case in point.

So an important question now is the attitude of the incumbent leaders of the two main federal regulators. In the case of both the SEC and the OCC, the leadership is unenthusiastic about rapid adaptation of the regulatory environment to cryptocurrencies and digital assets, indicating that the current broadly negative approach will persist and regulated entities will as consequence proceed cautiously.

Gary Gensler, a former chairman of the CFTC who was appointed chairman of the SEC in April 2021, has pursued an aggressive policy to bring cryptocurrencies and digital assets within the remit of existing regulatory arrangements, including enforcement and court actions.[30] This has dismayed progressive opinion in the securities industry. Regulated custodian banks are far from immune to the consequences of SEC decision-making - custody of securities is, after all, regulated by the SEC - but it is the attitude of officials at the principal regulator of the banking industry that has mattered more, because its decisions affect the cost of capital.

30 See "What is the SEC doing?" in Future of Finance*, Digital Asset Custody Guide: The Future Looks Like the Past,* Issue 1, pages 24-25.

The OCC, which is charged with chartering and regulating national banks, and monitoring their compliance with existing laws and regulations, has been led since May 2021 by Michael J. Hsu as Acting Comptroller of the Currency. Although his authority was mitigated by his status as "acting" head – a role in which he has continued since Cornell Law School Professor Saule Omarova was forced to withdraw her nomination as Head after hostile Senate hearings in November 2021 – Hsu has played a visible role in the reversal of the OCC policy of licensing digital asset custodians. [31]

10.0 IS SEC STAFF ACCOUNTING BULLETIN 121 (SAB 121) DEAD OR ALIVE?

SEC Staff Accounting Bulletin 121 (SAB 121) is sometimes described as making it impossible for public regulated banks to provide custody for digital assets, at least at scale. That is because the advice, published on 31 March 2022, requires public companies that are custodians of cryptocurrencies and digital assets on behalf of investors to recognise the fair value of the custodied assets as both a liability and an asset on their balance sheets.

As State Street, a major global custodian bank, pointed out in the autumn of 2022: "The SAB 121 position represents a marked departure from the historical treatment of custodied assets as off-balance sheet items, and disproportionately impacts those crypto asset custodians that are subject to prudential capital requirements, such as banks, that are required to maintain capital based on assets included on their balance sheet."[32]

The SEC justified such a dramatic change on the grounds that digital assets pose new risks, and that those risks had yet to be tested in the courts – a gap now being filled by a variety of legal actions taken by regulators and others against the failed cryptocurrency lenders BlockFi, Celsius and Voyager Digital - but the potential impact on public, regulated global custodian banks under pressure to support end-investor clients investing in cryptocurrency was large enough to make it extremely difficult for them to offer institutional clients a digital asset custody service. Indeed, SAB 121 is seen as a factor behind the decision by State Street to curtail its push into digital asset custody.

It is a plausible argument. The five largest global custodian banks, all of them American, are all public companies. They have between them collective AuC of US$154.1 trillion and total balance sheet footings of less than a twentieth of that figure (US$6.9 trillion). Unaltered, SAB 121 would make it impossible for them to custody digital assets at scale. This would have the perverse effect of leaving the field open to foreign banks, non-bank custodians and privately held companies. That is scarcely an outcome that regulators such as the SEC, whose primary concern is investor protection, were seeking.

As State Street and the other major global custodian banks acknowledged at the time, the threat of catastrophic balance sheet consequences lay in the future rather than the present. More than a year

31 The OCC approved the application of Anchorage Digital Bank to establish a national trust bank in April 2022 and gave both Paxos (in April 2021) and Protego Trust Company (also in 2021) conditional approval to do the same, but both applications were allowed to lapse in in March and February 2023 respectively. See Future of Finance, *Digital Asset Custody Guide: The Future Looks Like the Past*, Issue 1, page 26.

32 State Street Digital, Fall 2022 Digital Digest, *Volatility and the Digital Transformation,* page 20.

later, the exposure of the major global custodian banks to cryptocurrencies and digital assets remains trivial. BNY Mellon, for example, is compliant with SAB 121 for the Bitcoin and Ether it holds on behalf of clients but the bank is not even disclosing the value of the assets and the liabilities because they are not material.

This would change, especially if tokenised versions of existing and future ("native" only) regulated securities and funds took off and became a deca-trillion-dollar asset class around the world. An unaltered SAB 121 would make it impossible for the largest global custodian banks in the world to custody digital assets. It would concede a massive volume and value of digital assets to non-American and non-bank custodians.

While the United States is not immune to self-inflicted wounds - the €13 trillion Eurobond market was initially a creation of the American tax system and deficit spending – this consideration alone makes it likely that SAB 121 will be modified or overturned.

The uncertain status of SAB 121 itself certainly makes it vulnerable. The rule was announced with no comment period, violating Congressional rules. It was aimed at public companies, rather than the private ones that are the main source of risk.

The text contains contradictions. The heading to the document declares both that "this staff accounting bulletin expresses the views of the staff regarding the accounting for obligations to safeguard crypto-assets an entity holds for platform users" and that "statements in staff accounting bulletins are not rules or interpretations of the Commission, nor are they published as bearing the Commission's official approval. They represent staff interpretations and practices followed by the staff in the Division of Corporation Finance and the Office of the Chief Accountant in administering the disclosure requirements of the federal securities laws."[33]

This formulation allowed SAB 121 to be issued with no consultation, as would be required of a ruling issued under prevailing regulations. It also implies that moving customer assets onto the balance sheet of the custodian is simply a good idea for public companies, at least in the view of the SEC accounting staff, but that it is also not a directive custodians must comply with.

Yet the body of the text of SAB 121 makes clear that compliance with its provisions is not optional but mandatory:

> The staff would expect an entity that files reports … to apply the guidance … no later than its financial statements covering the first interim or annual period ending after June 15, 2022, with retrospective application as of the beginning of the fiscal year to which the interim or annual period relates.

Such contradictions open SAB 121 to challenge in the courts. Certainly, the text and the irregularities in the process by which SAB 121 was introduced are open to different legal interpretations.

In short, SAB 121 is an inept measure, introduced from a narrow accounting perspective, aimed at the wrong target, beset by contradictions, open to legal challenge and implemented in a manner whose process cannot be understood unless it was designed deliberately to bypass the normal consultation

33 Securities and Exchange Commission, Staff Accounting Bulletin No. 121, 17 CFR Part 211, Release No. SAB 121, 31 March 2022.

process.

These shortcomings mean SAB 121 is acutely vulnerable to a change of Presidential administration and/or chairmanship of the SEC - the current five-year term of Gary Gensler ends in 2026 - at some point soon, and perhaps as soon as the years between 2024 and 2026. It is already the target of energetic lobbying by the custodian banks and has come up regularly when Gensler appears before any Congressional committee.

Senator Cynthia Lummis of Wyoming, who serves on the Senate Committee on Banking, Housing, and Urban Affairs, has certainly never missed an opportunity to raise it. It is a particular interest of hers because the State of Wyoming passed laws exempting cryptocurrencies from securities laws in 2018. It also chartered Custodia, a digital asset custodian bank that opened for business in the State in 2020 but was denied an application to be supervised by the Federal Reserve in March 2023 because of concerns about its ability to fund its activities and manage the risks of its focus on the "crypto-asset sector".[34]

It was a question by Senator Lummis, arguing that placing custodial assets on the balance sheet reduced them to ordinary creditors in the event of bankruptcy, that prompted Gary Gensler, in his 12 September 2023 testimony to the Senate Banking Committee, to argue that SAB 121 was purely about accounting for "crypto" in public companies because "crypto" assets cannot be segregated from bankruptcy proceedings in the same way as traditional equities and bonds – as the bankruptcies of Celsius, Voyager and FTX proved.

Importantly, Gensler disowned the idea that SAB 121 was responsible for the capital implications of putting custody assets on the balance sheet:

> Staff Accounting Bulletin [121] is just about public companies and how to properly show that to investors in those banks. And it's [about] investors, not the people getting custody. The bank regulators are free to address how they treat capital however they wish to treat capital. But this is just about is the balance sheet … [they] have those custody crypto as a liability, but they also have the crypto as an asset. We don't speak to how it's backed - that's up to the bank regulators.[35]

This was an invitation to the highly paid analysts that follow the Big Five publicly listed global custodian banks - BNY Mellon, State Street, Citi, J.P. Morgan and Northern Trust – to treat SAB 121 not as a regulatory capital catastrophe but as a technical accounting fix to the segregation problems occasioned by an ill-defined set of "crypto" assets, though the term probably refers in this context to cryptocurrencies only.

However, Gensler did not dispose of the capital question; he merely passed it to the bank regulators. Unfortunately, the banking regulators have not formally clarified their position on SAB 121. Although Federal Reserve Chairman Jerome Powell, again in response to Senator Lummis while testifying to the Senate Banking Committee on 22 June 2022, stated plainly that "custody assets are off balance

34 See March 24, 2023: Federal Reserve Board publishes its order denying the application by Custodia Bank, Inc., to be supervised by the Federal Reserve at https://www.federalreserve.gov/newsevents/pressreleases/orders20230324a.htm

35 See the Gensler testimony to Congress at https://www.youtube.com/watch?v=qVvizbAMLA4, between 1:30:42 and 1:34:38. The quotation is taken from a transcript of this recording.

sheet, have always been," he also said, "the SEC made a different decision as it relates to digital assets for reasons it explained, and now we have to consider those."[36]

Bank regulators are certainly considering what to do. Call reports of meetings of the Federal Financial Institutions Examination Council (FFIEC) - a body where the Federal Reserve, the FDIC, the National Credit Union Administration (NCUA), the OCC and CFPB meet, as regulators of the banking system, to promote uniformity in the supervision of financial institutions – show that invitations to banks to include "crypto-assets" on their balance sheet in their call reports have featured in FFIEC Supplemental Instructions in June 2022, September 2022, December 2022, March 2023, June 2023 and September 2023.[37] Yet SAB 121 still remains under consideration by banking regulators in the United States.

As Senator Lummis pointed out to Chairman Powell on 22 June 2022, the Bank for International Settlements (BIS) - the central bank for central banks - has confirmed that in the opinion of the Basel Committee "crypto-assets" held in custody do not need to be held on the balance sheet of the custodian. In an otherwise conservative standard, which imposes heavy capital requirements on banks exposed to "crypto-assets," the BIS confirmed that the SAB 121 perspective on custodial assets is an outlier.

"Respondents to the second consultation raised concerns about the application of the standard in relation to customer assets where a bank is acting as a custodian," read the BIS paper *Prudential treatment of cryptoasset exposures*. "Respondents were concerned that the standard may imply the application of credit, market and liquidity risk requirements to those customer assets. This was not the intention of the standard. The standard has therefore been revised to clarify which elements are applicable to custodial services provided by banks."[38]

The efforts of Senator Lummis have not gone totally unrewarded. On 31 October 2023, the Government Accountability Office (GAO) a non-partisan body that aims to supply Congress, executive agencies and the public with information to improve decision-making, responded to a request by Senator Lummis to review SAB 121 in the light of the Congressional Review Act (CRA). Under the CRA, government agencies must submit rules to Congress for approval.

The GAO concluded that there was a risk "companies may change their behaviour to comply with the staff interpretations found in the Bulletin" yet the "the Bulletin is a rule under CRA and thus subject to CRA's submission requirement … The Bulletin is a rule for purposes of CRA because it meets the APA [Administrative Procedure Act] definition of a rule and none of the three CRA exceptions apply. Accordingly, the Bulletin is subject to the CRA's submission requirement." [39] In theory, this means the SEC should submit SAB 121 for review under the CRA and until it does so, SAB 121 is not a live regulation.

On 15 November 2023 a group of Congressmen led by Senator Lummis and the Chairman of the House of Representatives Financial Services Committee, Patrick McHenry, submitted a letter to the OCC,

36 See the Powell testimony to Congress at https://www.youtube.com/watch?v=od-BHvbmNoE, between 1:26:00 and 1:28:18. The quotation is taken from a transcript of this recording.

37 See, for example, Federal Financial Institutions Examination Council (FFIEC), Supplemental Instructions, 30 September 2023, at https://www.ffiec.gov/pdf/FFIEC_forms/FFIEC031_FFIEC041_FFIEC051_suppinst_202209.pdf

38 Basel Committee on Banking Supervision, *Prudential treatment of cryptoasset exposures,* December 2022, pages 3-4.

39 US Government Accountability Office (GAO), Securities and Exchange Commission—Applicability of the Congressional Review Act to Staff Accounting Bulletin No. 121, B-334540, 31 October 2023.

the Federal Reserve, the FDIC, and the NCUA urging them to clarify that SAB 121 is not enforceable following the finding of the GAO that it is not a rule under the CRA. They argued in the letter that "SAB 121 should have no legal effect and the Federal banking agencies and National Credit Union Administration should not require banks, credit unions and other financial institutions that provide custody services for digital assets to comply. This means that such entities need not recognize a liability and a corresponding asset offset on their balance sheets."[40]

However, in reality the banking industry will continue to work as if SAB 121 is in force, whether or not the SEC submits it for CRA review or not - simply because regulated banks prefer not to antagonise regulators – at least until the banking regulators make clear that they do not expect regulated financial institutions to put "crypto-assets" on their balance sheets. Which means that, although the impact of SAB 121 on the digital asset custody market today is minimal, its growth will be hampered until such time as the banking regulators reach a verdict.

Senator Cynthia Lummis

Congressman Patrick McHenry

Senator Sherrod Brown

40 Financial Services Committee, Press Releases, McHenry, Lummis, Colleagues Urge Prudential Regulators Not to Enforce SAB 121, Letter follows GAO finding SAB 121 constitutes a "rule" for purposes of the CRA, Washington, 15 November 2023.

11.0 HOW WORRYING ARE THE CHANGES TO THE INVESTMENT ADVISERS ACT 1940 CUSTODY RULE?

In the meantime, the custody industry – joined, in this case, by almost the whole of the financial services industry in the United States – is taking a much less sanguine view of another regulatory reform proposed by the SEC: a series of changes to the "custody rule" of the Investment Advisers Act of 1940 that have potentially far-reaching impacts on the custody industry.[41]

The impacts are so wide-ranging that they have generated fierce resistance in multiple quarters. The SEC faces extremely powerful groups determined to oppose the rule change. Among the most formidable are the 15,000 Registered Investment Advisors (RIAs) managing US$128 trillion on behalf of investors. They have close ties to local members of the House of Representatives throughout the United States.

The American Bankers Association (ABA) is another opponent with strong local political connections. It represents nearly 5,000 banks employing two million people, and the smaller members of the ABA fear the rule changes will cost them custody business. The Independent Community Bankers of America (ICBA), a domestic trade organisation that represents about 5,700 small to mid-size community banks, also has a membership with close local political ties.

Opponents are working together too. In September 2023, no less than 26 trade associations signed a letter entitled "Negative Impacts of the Safeguarding Proposal on Investors, Market Participants, and the Financial Markets."[42] For such an extensive coalition of trade groups to publicly challenge a proposal by one of their primary regulators is rare enough, but the letter included unusually forceful language as well.

The letter itemised four changes to current custodial practices – extended segregation of customer assets, a broadening of custodial responsibilities, a widening of the asset classes covered and a set of contractual obligations impossible for many firms to fulfil – that its signatories regard as unacceptable before urging the SEC not only to abandon the proposal in its current form but "to gain a better understanding of the current custodial framework." In case the addressee (Gary Gensler) missed that last point, the authors of the letter repeat it: "Before re-proposing, the Commission should gain a better understanding of the custodial market to develop a more tailored proposal."[43]

41 Securities and Exchange Commission, 17 CFR Parts 275 and 279, Release No. IA-6240; File No. S7-04-23, RIN 3235-AM32, Safeguarding Advisory Client Assets, 15 February 2023.

42 They are: ABA Securities Association (ABASA); American Bankers Association (ABA); Alternative Investment Management Association (AIMA); American Council of Life Insurers (ACLI); Association for Financial Markets in Europe (AFME); Bank Policy Institute (BPI); Commercial Real Estate Finance Council CREFC); Committee of Annuity Insurers; Committee on Capital Markets Regulation (CCMR); Commodity Market Council (CMC); Financial Services Forum (FSF); Financial Services Institute (FSI); Futures Industry Association (FIA); Institute for Portfolio Alternatives (IPA); Insured Retirement Institute (IRI); International Swaps and Derivatives Association (ISDA); Investment Company Institute (ICI); Loan Syndications and Trading Association (LSTA); Managed Funds Association (MFA); Money Management Institute (MMI); Nareit; National Society of Compliance Professionals (NSCP); Securities Industry and Financial Markets Association (SIFMA); Securities Industry and Financial Markets Association Asset Management Group (SIFMA AMG); The Real Estate Roundtable (RER); and the U.S. Chamber of Commerce Center for Capital Markets Competitiveness (CCMC).

43 A copy of the letter can be found here: https://www.sifma.org/wp-content/uploads/2023/09/Negative-Impacts-of-the-Safeguarding-Proposal-on-Investors-Market-Participants-and-the-Financial-Markets-Joint-Trades.pdf

The wide scope of the un-tailored rule change is proved by the range of signatories, which include the trade associations of participants in the swaps and OTC derivatives, syndicated loans, real estate, commodities, life assurance, hedge fund, mutual fund and commodities industries – several of which are not even overseen by the SEC in any capacity.

Indeed, the letter implies that the SEC is asserting authority over assets and areas that are not within its powers (*ultra vires* rather than *intra vires*); that these assets and areas currently work well; and that, in many cases, the proposed changes are either duplicative of existing provisions or in conflict with existing safeguards enforced by other regulators, such as the CFTC, the Federal banking regulators and the state insurance regulators. Other comments suggest market participants believe they have solid grounds for legal action.

Finally, the House of Representatives Financial Services Committee, which approves the operating budget of the SEC, has demanded the regulator withdraw the revised custody rule. One of its sub-committees has prepared legislative proposals that will thwart agreement on the 2024 budget of the SEC if the new custody rule is adopted.

The response is so forceful that it is hard to believe the rule change can survive in its present form. While rare, such defeats for regulators are not unknown. The joint letter submitted by 12 trade associations attacking the buy-in rules proposed by the European Securities and Markets Association (ESMA) under the Central Securities Depositories Regulation (CSDR), for example, proved highly effective in arguing that ESMA did not know what it was doing: the proposed buy-in rule was withdrawn for modification in 2021, where it has remained ever since.

The SEC did indeed retreat on 30 August 2023, reopening a comment period that had closed on 8 May 2023, extending it to 30 October 2023, although the retreat was camouflaged as a technical necessity. The SEC said they needed to give RIAs more time to comment on the adoption of the private fund adviser audit rule, which requires RIAs to obtain an annual audit of the financial statements of each private fund they advise in accordance with the audit provision of the revised custody rule.[44]

So what was so obnoxious in a 432-page document dealing with the ostensively drab subject of "Safeguarding Advisory Client Assets"? Technically, it concerns the amendment of the "custody rule" (206(4)-2) issued in 1962[45] under the Investment Advisers Act of 1940 into a new "safeguarding rule" (223-1). It is bundled up with related changes to the Rule 204-2, which governs investment adviser books and records, and the annual Form ADV completed by RIAs. The answer is that the proposed rule change introduced seven potentially sweeping changes to the way custody operates in practice.

The first is that the rule change *expands the definition of "custody" substantially to include many advisory practices that are already regulated heavily* - so increasing the compliance burden. Chief among the advisory practices now in scope is discretionary trading authority, where a client gives an RIA power to issue instructions to broker to execute and settle trades without seeking the authority of the client.

44 Federal Register, Safeguarding Advisory Client Assets; Reopening of Comment Period, A Proposed Rule by the Securities and Exchange Commission on 08/30/2023 at https://www.federalregister.gov/documents/2023/08/30/2023-18667/safeguarding-advisory-client-assets-reopening-of-comment-period

45 Since the "custody rule" was introduced in 1962 it has been updated only once before. This was in 2003, to take account of technical changes in custody and custody technology; it was limited in scope by comparison with the changes that could follow implementation of the new "safeguarding rule."

The SEC argues that, because granting discretionary trading authority means the RIA can secure profits and incur losses on behalf of the client, this puts the RIA into a custodial relationship with the client. This is to stretch the notion of custody to breaking point, and both the Investment Company Institute (ICI) on behalf of mutual funds and the Managed Funds Association (MFA) on behalf of hedge funds have criticised the measure as all cost and no benefit. They say circa 5,000 RIAs will find they are providing "custody" to large numbers of accounts when nothing has actually changed in the RIA-client relationship.

The second major change is the *extension of the range of assets regarded as eligible for custody.* The rule change proposes to extend the application of the "custody rule" from securities and funds only to encompass all positions in a client account. The new rule defines assets as "funds, securities, or other positions held in a client's account."

The difficulty with this extension is that "other positions" may not correspond to the accounting definition of an "asset." A negative cash position, or a short position in a security, or an options contract that gives the holder the right to buy or sell shares in the future at an agreed price, would normally appear on the liability rather than the asset side of the client balance sheet.

Even those "positions" that can be categorised correctly as "assets" – such as cash collateral posted as security in a swap contract executed on behalf of a client, or participations in syndicated loans, or any other assets that do not fall clearly into the funds or securities categories – would be covered by the new rules. So would physical assets such as real estate, precious metals and agricultural commodities.

The new rule will also capture a form of investment currently exempt from the "custody rule": privately held funds. An RIA might have little to do with these assets currently other than recording them on behalf of a client. But if the revised "custody rule" stands, they will need to understand each area, comply with the relevant regulations and regulators, take out additional insurance cover and possibly have to set up new technology systems and operational processes.

Many of the asset classes captured by the revised "custody rule" are already regulated by agencies other than the SEC, such as the CFTC. They also operate to well-defined and well-established rules. According to the International Swaps and Derivatives Association (ISDA), the new rule means that a "qualified custodian"[46] would need to become party to every ISDA Master Agreement (the standard bi-lateral documentation of an OTC swap agreement between the two parties) and be notified of each transaction. This is because RIAs have no competence to perform custodial duties. Such a measure clearly takes the SEC into regulatory territory already controlled by the banking regulators that supervise ISDA members, rendering it liable to annulment as *ultra vires*. The same is true of syndicated loans, which are also a responsibility of banking regulators.

The third change is an *expansion of the liability of custodians for client assets in custody.* The fact that the new rule extends the notion of assets-in-custody to include all positions in a client account obviously increases the degree of risk assumed by a custodian, which may have little control over the "positions" of a client. The change implies custodians are exposed to losses on assets which they do not control.

46 For a definition of a "qualified custodian" see Future of Finance, *Digital Asset Custody Guide: The Future Looks Like the Past,* Issue 1, page 22. Essentially, the term "qualified custodian" refers to a bank or savings association, SEC-registered broker-dealer, CFTC-registered futures commission merchant, or certain foreign financial institutions meeting specific requirements.

This was the subject of contention in Europe when, in the wake of the great financial crisis of 2007-08, the European Union sought to make custodians liable for loss of client assets that they did not actually hold in custody, such as assets rehypothecated by investment banks used by the client. Ways were eventually found to limit the liability of custodians for client assets in the Alternative Investment Fund Managers Directive (AIFMD) of the EU – essentially, liability was limited to securities and funds recorded in the name of the custodian and to assets subject to rehypothecation only when they were not being re-used – and something similar might be agreed in the case of the new safeguarding rule, but the underlying legal responsibility will remain.

In another reprise of debates in the EU after 2007-08, one aspect of the new rule that has goaded the Association of Global Custodians (AGC) in particular is the extension of liability for assets held by sub-custodian banks and central securities depositories (CSDs). In the case of sub-custodians there is already some tension, as sub-custodians are chosen by global custodians, which remain responsible for losses not reimbursed by the sub-custodian. However, there are events, such as *force majeure*, that can occasion losses for which a sub-custodian cannot be held responsible.

As to CSDs, in many markets global custodians are either forced to use the CSD to settle transactions, or to use a sub-custodian for the same purpose, and so cannot reasonably be held responsible for the consequences of choices that are not voluntary. The riskiness of a sub-custodian or a CSD is generally a function of country risk, and it is the investor rather than the custodian that chooses to assume country risk. Accordingly, the AGC argues, not unreasonably, investors should bear CSD risk.

The fourth change proposed by the new rule is an *obligation for custodians to segregate client assets, including cash*. A measure of this kind is already in effect in the United Kingdom, where the Client Money Rules administered by the Financial Conduct Authority (FCA) oblige firms to segregate client cash from money they hold in their own name.[47] But in the United States, a safeguarding rule that required "qualified custodians" to hold client cash in segregated, off-balance sheet accounts is seen as fundamentally disruptive of the core banking business of taking deposits, providing credit and facilitating payments.

Opponents also argue that segregation would slow down cash payments and the securities and funds settlement cycles, leading to higher costs for investors and other market participants, through higher funding and credit charges, increased operational risks and increased risks of trade failures. It is reported that the SEC is open to discussing how cash is actually used for settlement, and in asset servicing functions such as dividend payments, and how banks provide liquidity. Net interest margin on client cash is of course a major source of income for custodian banks.

The fifth major change presaged by the revisions to the "custody rule" is to *alter the relationship between the RIA, the custodian and the underlying asset owner client*. The new rule would compel RIAs to enter into contractual agreements with clients' custodians directly. This of course runs directly counter to the longstanding structure of custody relationships, in which asset owners choose, employ and pay custodians without the RIA being party to the agreement. Instead, the asset owner delegates authority to the RIA to buy and sell securities and deliver them to and retrieve them from the custodian as necessary.

Making RIAs party to custodial arrangements is not a new idea. The SEC attempted to make a similar

47 See https://www.handbook.fca.org.uk/handbook/CASS/7.pdf

change in 2017 but failed. The SEC has returned to the idea because it believes agreements between RIAs and client custodians can embody a set of protections for investors. In particular, the agreement would ensure that "qualified custodians" must:

- Exercise due care and attention and implement measures to safeguard the assets of the advisory client of the RIA;
- Indemnify the advisory client for those occasions when negligence, recklessness or wilful misconduct results in the client incurring losses;
- Not be relieved of their responsibilities to an advisory client as a result of sub-custodial arrangements;
- Clearly identify an advisory client's assets and segregate those assets from their proprietary assets;
- Ensure client assets remain free of liens in favor of a qualified custodian unless authorised in writing by the client;
- Keep certain records relating to those assets;
- Cooperate with an independent public accountant's efforts to assess its safeguarding efforts;
- Send periodic custodial account statements directly to the RIA;
- Submit internal controls relating to custodial practices to periodic evaluation of their effectiveness; and
- Reflect an investment adviser's agreed-upon level of authority to effect transactions in the advisory client's account, as well as any applicable terms or limitations.

The SEC proposes that these RIA-custodian agreements be in the form of a formal written agreement for some issues, while others can be satisfied by the custodian providing "reasonable assurances" in writing to the RIA.

The sixth change occasioned by the proposed new "custody rule" is a *narrowing of the range of entities that rank as "qualified custodians."* In the estimation of its opponents, the new "safeguarding rule" will impose on custodians a host of new commercial and operational requirements that will be hard or even impossible for many custodians to fulfill, disrupt a multi-layered system that works well, and narrow the range of entities willing to provide custody services. A predictable consequence of increased compliance costs is indeed usually a reduction in choice and competition and higher fees, with no benefits for intermediaries or their clients.

There was also a concern that the SEC would try to exclude State chartered banks from being "qualified custodians" in the future. This followed actions by Federal banking regulators to discourage State-licensed banks eager to custody cryptocurrencies and other digital assets[48] - but the American Bankers Association (ABA) is confident that it has already neutered that possibility.

However, there are still barriers to clear, particularly in the narrow area of digital asset custody. Digital asset custodians reckon they will need insurance policies to meet the requirements of the new Safeguarding Rule. Given that digital asset custody insurance is a still-nascent business, the seventh and final concern raised by the proposed new Safeguarding Rule is a *fear that no "qualified custodian" will be able to custody certain digital assets on behalf of certain RIAs.*

48 See page 15 above and footnote 31 on page 49 above. See also the story of Wyoming custodian bank Custodia on page 51 above. .

While the large and established global custodian banks were put under pressure by buy-side clients to safekeep cryptocurrencies, the same banks are now also under pressure from regulators not to do so. BNY Mellon is offering a limited service - Bitcoin and Ether custody only - to clients, while State Street is not offering a service at all. No major global custodian bank will offer cryptocurrency services to smaller RIAs.

This is the opportunity identified by a number of banking entities at the State level, which have secured licences as Limited Purpose Trust companies. The New York Department of Financial Services (NYDFS) has emerged as the dominant issuer in terms of both licences and AuC, although the figure is flattered by the fact that both Coinbase (the largest cryptocurrency custodian with $120 billion in AuC) and BitGo (probably the second biggest and certainly the most prominent independent cryptocurrency custodian) are both in New York.

A number of other States - South Dakota, Nevada, Washington and Wyoming – also offer Limited Trust or Special Purpose Depositary licences. Some of the recipients of these have proved less-than-robust. In June 2023, the Nevada Financial Institutions Division placed one of its licensed providers, Prime Trust, into receivership.[49] So the outlook for the average-sized RIA looking for a "qualified custodian" to comply with the new Safeguarding Rule is bleak even before the peculiarities of holding digital asset under the new rule are taken into account.

12.0 IMPACT OF THE "SAFEGUARDING" RULE ON DIGITAL ASSET CUSTODY

Clearly, digital assets, being neither securities nor funds (under the old "custody rule" definition) but certainly client "positions" (under the proposed new "safeguarding" rule) must be held by a "qualified custodian." But digital assets also present even the best "qualified custodians" with novel challenges.

In the text of its proposed rule change, the SEC expects custodians to have "possession and control" of assets to provide custody. This is hard to demonstrate with digital assets. Indeed, the SEC acknowledges that "it may be difficult actually to demonstrate exclusive possession or control of crypto assets due to their specific characteristics (e.g., being transferable by anyone in possession of a private key)" and that "an advisory client and a qualified custodian might simultaneously hold copies of the advisory client's private key material to access the associated wallet with the client's crypto assets, and thus both have authority to change beneficial ownership of those assets."[50]

Nevertheless, the SEC expects RIAs to place digital assets with "qualified custodians" and expects the "qualified custodians" to hold the private keys both "in a manner such that an adviser is unable to change beneficial ownership of the crypto asset without the custodian's involvement" and in such a way that that it "has possession or control of the assets at all times in which the adviser has custody."[51]

49 See Future of Finance, *Digital Asset Custody Guide: The Future Looks Like the Past,* Issue 1, page 9.

50 See Securities and Exchange Commission, 17 CFR Parts 275 and 279, Release No. IA-6240; File No. S7-04-23, RIN 3235-AM32, Safeguarding Advisory Client Assets, page 66.

51 *See Securities and Exchange Commission, 17 CFR Parts 275 and 279, Release No. IA-6240; File No. S7-04-23, RIN 3235-AM32, Safeguarding Advisory Client Assets page 67.*

In short, the SEC is demanding that custody be structured in such a way that the custodian can exercise control over the assets at all times.

Such a demanding criterion is likely to further reduce the number and quality of custodians willing to take on digital assets belonging to clients of RIAs. It may force some RIAs to decline to offer cryptocurrencies and digital assets as products, limiting investor choice. There are already many forms of digital asset – tokens issued by providers of DeFi apps are an obvious case in point – where no "qualified custodian" is willing to offer a service. Obviously, this is a problem for any RIA client that owns or wants to own such assets.

True, the "safeguarding" rule does permit RIAs to self-custody assets, including digital assets.[52] However, the requirements for self-custody are demanding and in practice few RIAs are likely to take advantage of the opportunity.

Another challenge RIAs will face is the fact that cryptocurrencies trade on exchanges, almost all of which insist users trade, settle and safekeep assets with the exchange but almost none of which rank as "qualified custodians." Since the proposed new safeguarding rule will require even self-custodying RIAs to "maintain possession and control of client assets at all times," any using the custody services supplied by cryptocurrency exchanges are likely to be in violation of the safeguarding rule.

Fortunately, models have emerged in the cryptocurrency markets that enable investors to trade on exchanges without placing assets in custody with the exchanges. Both the ClearLoop service provided by Copper and BitGo Prime Trading allow bi-lateral off-exchange delivery-versus-payment or delivery-versus-delivery settlement models. This ensures digital assets never leave the "possession and control" of a custodian even for settlement purposes since settlement entails simultaneous exchange.[53]

If the new "safeguarding" rule does eventually come into force, digital asset exchanges will have to adapt to the needs of RIAs that originate buy or sell orders. The size of the challenge is unknown, since it is not known what proportion of transactions originate with RIAs.

Most exchanges require buy/sell orders and settlement through accounts on the exchange. Where the exchange is not a "qualified custodian" – which is true of all bar a handful – placing custody assets on such an exchange would be a violation of rule 223-1. This would limit compliant models for trade execution for RIAs to transactions involving settlement directly into and out of a "qualified custodian."

52 *See Securities and Exchange Commission, 17 CFR Parts 275 and 279, Release No. IA-6240; File No. S7-04-23, RIN 3235-AM32, Safeguarding Advisory Client Assets page 82.*

53 *See page 27 above.*

13.0 CONCLUSION: THE BANK REGULATORS ARE WHAT MATTERS NOW IN THE UNITED STATES

The SEC has certainly disturbed the incumbents in the custody industry in the United States by advising public companies to treat client assets in custody as a balance sheet asset and liability (via SAB 121) and by threatening to extend the range of assets for which custodians are responsible while potentially shrinking the number of institutions that are eligible to take responsibility (by the proposed "safeguarding" rule). Yet it is not the attitude of the SEC that is really bothering the leading custodian banks; it is the attitude of the banking regulators, and in particular the Federal Reserve, the OCC and the FDIC, that troubles them most.

Regulated banks are always wary of what their regulators want. In the aftermath of the string of cryptocurrency exchange and lending failures in 2022, and the associated failures of some of the banks that serviced cryptocurrency market participants, regulated banks are more sensitive than ever. While claims that the banking regulators are engaged in a crackdown on digital asset banking in general (the so-called "Operation Choke Point 2.0") are not credible, it is certainly true to say that American banking regulators are proceeding cautiously.

The refusal of the banking regulators so far to take up the invitation of Gary Gensler to resolve the capital uncertainty over the accounting advice of SAB 121 by addressing "how they treat capital, however they wish to treat capital" is ostentatious. Every quarter since June 2022, the inter-agency body of the bank regulators has confirmed they are still reviewing the effects of SAB 121. They maintain this position despite widespread agreement that its origins are problematic and its validity questionable, forcing all affected parties to comply with the requirements of SAB 121 while the banking regulators deliberate for what will by February 2024 total 24 months.

It also remains unclear how or whether the BIS recommendations on the *Prudential treatment of cryptoasset exposures* will be implemented in the United States – and that is a major concern for regulated banks because it affects directly the capital treatment of custody. That uncertainty, coupled with uncertainty over SAB 121 and the "safeguarding" rule, is dampening the enthusiasm of the custodian banks to develop cryptocurrency custody services. That is in turn limiting the experience they need to custody more promising types of digital asset, such as security tokens.

The firms that have provided cryptocurrency custody services are not being welcomed by the banking regulators either. The Federal Reserve is moving actively to deny master accounts to banks it considers too risky. Wyoming-based Custodia, holder of a local chartered special purpose depository institution (SPDI) licence, is the most prominent victim. But the central bank is equally hostile to similar licences issued by State regulators in Washington, South Dakota and especially Nevada, where one provider has got into trouble.

Another visible change has occurred at the OCC, where Acting Comptroller of the Currency Michael J. Hsu has reversed the cryptocurrency custody-friendly policy of his predecessor. Under the previous Comptroller, the OCC had licensed or conditionally licensed banks that wanted to offer cryptocurrency

custody services. The OCC licence granted to Anchorage Digital Bank N.A. (ADB), allowing it to offer digital asset custody as a "qualified custodian," was denied to Paxos and Protego even though they were earlier granted conditional licences. In August 2023, blockchain-based Figure Technologies withdrew its application for an OCC licence.

That same month of August 2023 saw institutional cryptocurrency exchange EDX Markets choose Anchorage Digital as its custodian. EDX was reported to be planning to appoint Paxos, whose application for an OCC licence expired in March 2023. So it is clear that an OCC licence matters. What banking regulators think, not just about how cryptocurrency should be custodied but how digital assets in general should be custodied, matters. The behaviour of the banking regulators in the United States is now a major determinant of how digital asset custody develops.

As far as the development of digital asset custody is concerned, the most important banking regulator is Michael J. Hsu, the Acting Comptroller of the Currency. At a conference in early November 2023, he said something that ought to give regulated custodians considerable grounds for hope.

"There seems to be more and more of a divide between crypto on one hand and tokenisation," he said. While cryptocurrency is "driven by the hope for speculative gain" and "replete with frauds, scams and hacks," tokenisation "is focused on solving an actual problem, and that problem is settlement. This is boring back-office stuff, but it's super, super important."[54] So there is at least one American banking regulator who understands what is at stake in digital asset custody.

54 https://www.coindesk.com/policy/2023/11/07/us-banking-watchdog-hsu-says-tokenization-promising-but-crypto-full-of-fraud/

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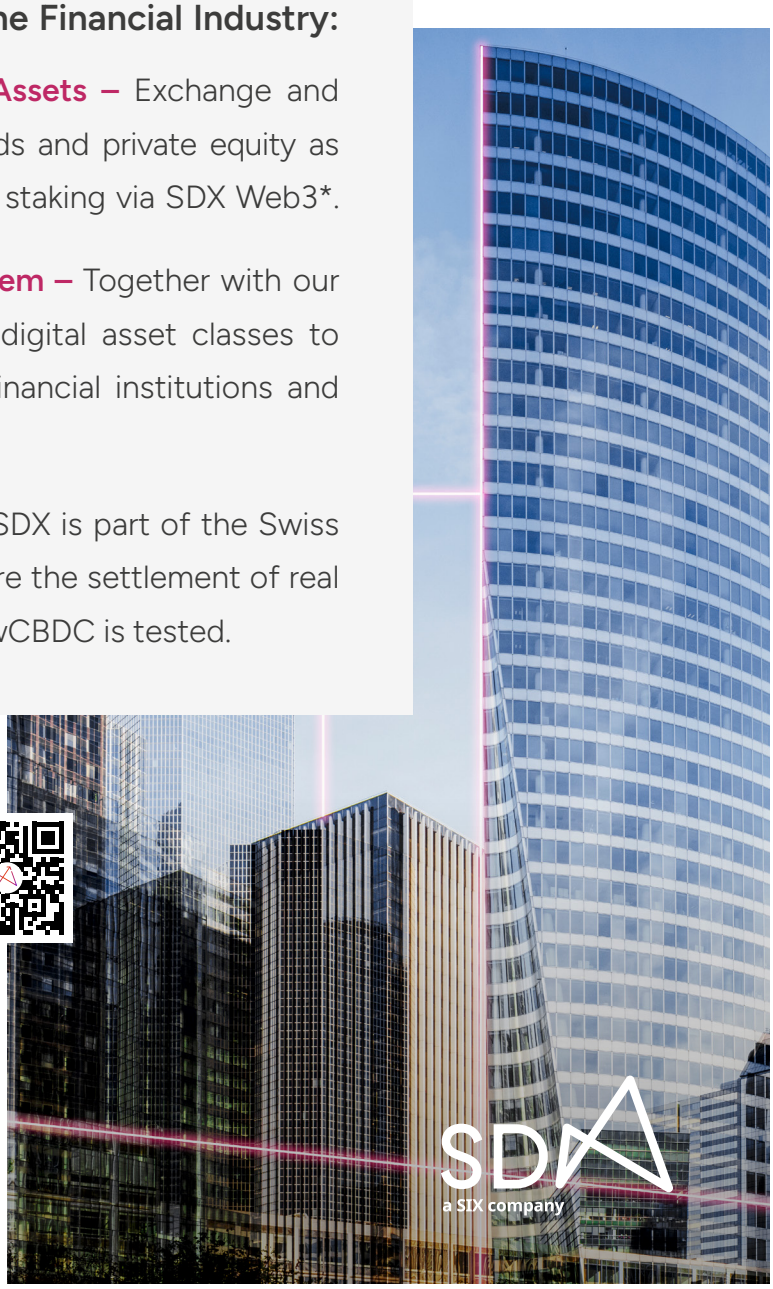

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