



# Crypto-assets in Dutch perspective

Opportunities for a Dutch crypto-asset ecosystem



The Dutch Banking Association (Nederlandse Vereniging van Banken, or 'NVB') strives to achieve a strong, healthy and internationally competitive banking system for the Dutch and foreign banks and credit institutions operating in the Netherlands.

# Table of content

<b>Executive Summary</b>	<b>4</b>
<b>1 Crypto-assets</b>	<b>6</b>
A brief history	6
Crypto-assets are part of the future of finance	6
Crypto-assets are maturing	7
Crypto's nature and forms	8
<b>2 Opportunities presented by crypto-assets</b>	<b>12</b>
Crypto-assets bring benefits to the financial ecosystem	12
Crypto-assets bring benefits to the Dutch economy	13
Crypto-assets bring opportunities to the financial sector	14
<b>3 Managing risks associated with crypto-assets</b>	<b>20</b>
Identifying the main risks	20
Financial crime risks	21
Consumer investor risks	22
Market integrity risk	23
Systemic and financial stability risk	24
Technology and other risks	25
The role of banks	26
<b>4 An innovation-friendly regulatory framework for crypto-assets</b>	<b>27</b>
A harmonized European regulatory framework for crypto-assets	28
Facilitate and promote the use of tokenization in the Netherlands	31

# Executive Summary



## ● ● Why we believe crypto-assets are important?

The benefits of blockchain – or distributed ledger technology (DLT) – have been widely accepted and its use as a key technology is being promoted in various industries. Particularly in financial services, DLT can be an important driver for innovative digital finance. It allows for more efficiency in the various stages of the capital markets transaction lifecycle (from trading to settlement), more financial inclusion, increased access to financial products and higher resiliency of market infrastructure. One of the most promising areas utilizing DLT is crypto-assets.

As the European Commission emphasizes, crypto-assets have the potential to bring significant benefits to both market participants and consumers. For instance, initial coin offerings (ICOs) and security token offerings (STOs) allow for a cheaper, less burdensome and more inclusive way of financing for small and medium-sized companies (SMEs), by streamlining capital-raising processes and enhancing competition. The so-called ‘tokenization’ of traditional financial instruments is also expected to open up opportunities for efficiency improvements across the entire trade and post-trade value chain, contributing to more efficient risk management and pricing.<sup>1</sup>

A number of promising pilots or use cases are being developed and tested by new or incumbent market participants across the EU. Provided that platforms based on DLT prove that they have the ability to handle large volumes of transactions, it could lead to a reduction in costs in the trading area and for post-trade processes. If the adequate investor and consumer protection measures are in place, crypto-assets could also represent a valuable new asset class. Payment tokens could also present opportunities in terms of cheaper, faster and more efficient payments, by limiting the number of intermediaries.

The aim of this document is to give better insight in the potential of crypto-assets and associated risks, the benefits for the Dutch economy and the need to facilitate more innovation in digital finance.

For the Dutch economy to benefit and assume a leadership position, we propose concrete measures to stimulate innovation and create a clear regulatory framework. At a minimum, Dutch regulators should aim for a harmonized regulatory framework at European level and ideally at an international level. As a lot of business development is done in consortia with international parties, creating the need for a level playing field across Europe and reducing fragmentation across member states is key.

---

1

[https://ec.europa.eu/info/sites/info/files/business\\_economy\\_euro/banking\\_and\\_finance/documents/2019-crypto-assets-consultation-document\\_en.pdf](https://ec.europa.eu/info/sites/info/files/business_economy_euro/banking_and_finance/documents/2019-crypto-assets-consultation-document_en.pdf)

## • • Key recommendations given by the Dutch Banking Association

Countries like the UK, US, France, Germany and Switzerland have acknowledged the strategic value of crypto assets for their (future) economy and are actively designing their regulatory perimeter to guide and accommodate crypto innovation. Given the potential of crypto-assets, the Dutch Banking Association would welcome initiatives to promote and stimulate innovation at both national and European level.

The Dutch Banking Association (NVB) supports the current initiatives of the European Commission:

- To create a more detailed taxonomy regarding the classification of crypto-assets as a first step in order to provide regulatory clarity for market participants;
- To amend existing regulation with any necessary amendments or additional guidance where possible to encourage innovation and foster a level playing field, applying the principle of 'same activity, same risk, same regulation';
- To apply activity-based and technology-agnostic regulation;
- To provide additional clarification regarding how existing rules will apply to crypto-assets – since they were not originally designed with crypto-assets in mind – for payment, utility and security tokens.
- To align the EU regulatory framework globally for crypto-assets wherever possible in order to sufficiently mitigate the risks.

To take a leading position in the development of a European framework for crypto-assets, the following initiatives should be taken at a national level in the near future:

- Dutch regulators need to implement an international taxonomy and rules related to crypto-assets swiftly in order to keep a level-playing field and optimization for proper (inter)national business development;
- Take a leading position with a Dutch strategy on crypto-assets;
- Encourage collaboration between regulatory and supervisory authorities, financial industry and the crypto industry to work jointly on legal and innovation frameworks as part of the Dutch fintech strategy;
- Map out and adopt best practices for security tokens already regulated under MiFID II, as already seen in other European member states;
- Continue and deepen cooperation with the regulatory sandbox of DNB/AFM (Maatwerk voor Innovatie) in its role as a vehicle for mutual learnings, risk mitigation and business development with new technologies, specifically for crypto-assets;
- Lower barriers for Dutch banks to provide custody and virtual asset service provider (VASP) activities for their customers, in order to facilitate a controlled uptake of the use of crypto-assets while providing proper duty-of-care, KYC/AML and other regulatory requirements.

# 1 Crypto-assets



## ● ● A brief history

Although digital cash technologies were already developed in the seventies – including hashing technology and cryptography – the first cryptocurrency with worldwide recognition and attention, called Bitcoin, was launched just after the start of the financial crisis in 2008.

The underlying distributed ledger technology ignited the development of new products, business models, new features and risks. In financial markets, DLT plays two key roles: Firstly, they are used as a tool of shared information and trust to enable more efficient and effective processes (such as Trade Finance, KYC and Syndicated Lending etc.) and secondly, the focus of this position paper, crypto-assets.

Once started as a technology for cryptocurrencies, it has evolved to be what is now understood as a basis for all different kind of crypto-assets, currencies being just one of them. Financial institutions, specifically banks, are deploying and exploring new ways of adding value to customers using blockchain.

## ● ● Crypto-assets are part of the future of finance

DLT can do for value what the internet did for information: to achieve a truly open global financial system. Clients are demanding evermore highly customized, cost-effective and easily accessible digital solutions along all asset-classes in banking. Together with the rise of new technologies, this has already led the financial industry to start moving from a capital-intensive to a more technology-intensive market model.

In current financial markets, frictions still exist. Trust, in particular, could become more seamlessly integrated, as the markets still require complete trust from users in the system and their actors. Crypto-assets and DLT would seem a particularly appropriate tool to optimise existing arrangements by increasing their (cross-border) efficiency and reducing costs.

Crypto-assets are essentially touching the core of finance. They can be seen as an evolutionary step in the transition of accounting, transacting and recording from paper to an entirely digital form. Who or what gets to handle these digital processes depends on their level of know-how and the trust that comes with it. As consultancy firm Accenture puts it: “The advent of crypto-assets is a ‘Kodak moment’ for the financial services industry”.<sup>2</sup>



<sup>2</sup> Digital Assets – Tokenized revolution in financial services? – Accenture – Aug 2019.

The banking industry as well as the European Commission show vision and strong support for the further digital transformation of a European Single Market. The COVID-19 pandemic crisis has shown that consumers and businesses are increasingly relying on digital financial services. It has emphasized the importance of stable and well-functioning payment and financial services, and the role banks can play in supporting their clients in times of economic insecurity. Overall, the coronavirus emergency has accelerated innovations in digital and remote financial products services.

## ● ● Crypto-assets are maturing

Trends related to crypto-assets suggest that the market is maturing and growing, while technological, legal and environmental challenges persist. Over recent years, we have seen the emergence and consolidation of blockchain-based crypto-assets such as Bitcoin and ERC-20 standard Initial Coin Offerings (ICO's). This came along with challenger business models in, for example, decentralized lending, energy settlement, crypto exchanges and derivatives markets etc.

Crypto-assets are now considered as a new asset class with growing interest from institutional and private investors. We expect the crypto industry will mature further aided by regulatory requirements and the entry of traditional players (e.g. banks, security exchanges, big tech, professional services companies).

*In the Netherlands, a top of 580.000 Dutch retail investors in crypto was reported in early 2018, decreasing to 480.000 at the end of 2018 (Kantar TNS). Where the average Dutch investor is described as aged 54 with an above average education and income, the average crypto investors were described as young, male, well-educated and investing relatively small amounts to 'keep' (HODL). (Business Insider – 10 Oct 2018). Although there is no recent data available, internal data and the increased ease of use and offerings by players such as Robin Hood, Revolut and exchanges as Coinbase, Kraken, Binance and Bitstamp, lead us to believe numbers are still substantial.*

In the short term, as crypto-assets become more mature, they will have an impact on the further rise of tokenization of standardized products such as equity or bonds, with Security Token Offerings (STO's) becoming a more familiar term. Tokenization of smaller asset resources, such as shares of small and medium sized enterprises (SME's) or real estate are on the rise as well. In the medium- to long-term, tokenization of additional ranges of ownership or usage rights will bring cars, wine, fine art and other collectibles, previously illiquid and accompanied by high transaction costs, to the markets and make them accessible for more investors. Several market studies and surveys from institutions such

as the World Economic Forum (WEF), McKinsey and Accenture predict huge potential and growth for crypto-assets and tokenization. Other research projects a tokenized market volume of USD 24 trillion (FINOA 2018).<sup>3</sup>

## ● ● Crypto's nature and forms

Crypto-assets is a broad term, encompassing various products and serving many purposes: for instance, they can be a digital representation of existing (financial) products on a DLT network, or they can represent new financial products issued directly on a DLT network.

What differentiates crypto-assets from other financial products currently in use today, is their use of cryptography and DLT. This allows multiple participants to access or create crypto-assets in a decentralised manner, in which each ledger on the network creates a tamper-proof record of activity. This underlying technology offers a range of potential benefits within financial services<sup>4</sup> including faster, cheaper and more efficient cross-border transactions. However, DLT's innovative and unique capabilities are also what makes developing an approach to the regulation of crypto-assets challenging, because existing regulations were not developed with DLT in mind.

### **Definitions**

The lack of clear definitions – and therefore a lack of legal certainty – is one of the primary obstacles to the development of a sound crypto-asset market in both The Netherlands and the EU. For the Netherlands to be able to make the most of the possibilities that DLT and crypto-assets have to offer, while mitigating the associated risks, a common European approach and taxonomy is needed to avoid the current fragmentation.

As the technology is so new, it is also vital to involve regulators and industry bodies as early in the process as possible and to set standards that can be adopted throughout the industry. Standards are important to reduce complexity, accelerate implementation and avoid integration costs.

The Dutch Banking Association believes regulatory categorization is a key foundation for determining how regulation is applied. It is important to consider whether crypto-asset products or related activities fall within the current regulatory perimeter. This depends on how a crypto-asset is defined and classified and whether the activity performed, or the crypto-asset itself, is regulated.

An important goal of the current EC initiatives is to provide more clarity in taxonomy. Although more definitions exist, the Dutch Banking Association proposes the current definitions used by the European Banking Federation (EBF) and the Association for Financial Markets in Europe (AFME), while further awaiting a proposal by the European Commission later this year.

---

<sup>3</sup> [FINOA \(2018\). The Era of Tokenization – market outlook on a \\$24trn business opportunity.](#)

<sup>4</sup> [AFME \(2019\) – Recommendations for delivering supervisory convergence on the regulation of crypto-assets in Europe.](#)

In our definition, crypto-assets are digital assets which utilize cryptography and distributed ledger technology. It is an umbrella term including Security Tokens, Utility Tokens and Payment Tokens. A token is a digital representation of value whose ownership is recorded on a distributed ledger that is controlled by cryptographic keys. Having access to the private key constitutes control over a token.

### The term 'token'

There are three major types of tokens based on their economic function:

- **Security Tokens** (equity and debt tokens, investment tokens) are crypto tokens issued to investors in a token sale or security token offerings (STO) for the exchange for fiat money or other cryptocurrencies. When purchasing Security Tokens, the investor expects a future cashflow, and hopes to generate a capital gain when selling them. These are considered to be a 'financial instrument'.
- **Utility Tokens** enable access to a specific product or service often provided using a distributed ledger technology platform, but they are not intended to be accepted as a means of payment for other products or services. Utility tokens allow interaction between the users and the company through a platform.
- **Payment Tokens** are used as a means of exchange, replicating the functionality of a coin. The primary purpose is to make peer-to-peer payments. Different sub-types of Payment Tokens exist.

Over recent years, the public debate has often been centred around specific applications of crypto-assets and, more particularly, the use of payment tokens and crypto currencies, which are a diverse subset of crypto-assets:

- A **cryptocurrency** is a Payment Token which is secured using cryptography. The individual crypto coin fluctuates in value since it is not being kept stable (e.g. Bitcoin or Litecoin). It is negotiable and convertible into legal tender (fiat money).
- A **stable coin** is a cryptocurrency that is pegged to another asset of which the value is kept stable. This can be kept stable by putting all collateral in another asset (fiat currencies) or pool of assets, or kept stable by putting collateral in other crypto-currency whereby an algorithm keeps the value pegged to another asset (fiat currencies).
- An **asset-backed Commercial Bank coin**: a DLT representation of money issued by a commercial bank.
- **Central Bank Digital Currency (CBDC)**: a liability of a central bank withdrawable for cash at par. A CBDC is not a crypto-asset per se and is a digital representation of fiat currency.

## CBDC out of scope

While being part of the current public debate, this document excludes Central Bank Digital Currencies as they have very specific characteristics. CBDC, is a new form of digitized sovereign currency, generally conceived to be equal to physical cash or reserves held at the central bank<sup>5</sup>, and is currently being researched for development and implementation by an increasing number of central banks worldwide, including the European Central Bank (ECB). China is leading the pack, but after seeing opportunities for CBDC to protect public interests in payments systems the Dutch Central Bank ( DNB) also announced its intention to experiment with a retail CBDC<sup>6</sup> in April this year. Due to a decreasing use of cash in the Dutch economy and a rapid increase of digital payments, the DNB sees CBDC as a possible vehicle of control for financial stability. This was also voiced by the World Economic Forum during the Davos meeting in January 2020, where a policy toolkit for central banks was launched in order to experiment and implement CBDC's in their own country.<sup>7</sup> The ECB has also voiced that they want to be at the forefront of CBDC discussions.<sup>8</sup>

## A new regulatory proposal for Markets in Crypto-assets (MiCA)

A new regulatory proposal for Markets in Crypto-assets (MiCA) on September 24th 2020, the European Commission published their 'Digital Finance Package', including a digital finance strategy and a renewed strategy for modern and safe retail payments, as well as legislative proposals regarding crypto- assets, The proposal has four general objectives:

- 1 generating legal certainty by clearly defining the regulatory treatment of all crypto-assets that are not covered by existing financial services legislation;
- 2 supporting innovation by putting in place a safe and proportionate framework;
- 3 instilling appropriate levels of consumer and investor protection and market integrity;
- 4 to ensure financial stability by addressing potential risks to financial stability and orderly monetary policy that could arise from 'stablecoins'.

5 [http://www3.weforum.org/docs/WEF\\_CBDC\\_Policymaker\\_Toolkit.pdf](http://www3.weforum.org/docs/WEF_CBDC_Policymaker_Toolkit.pdf)

6 <https://www.dnb.nl/en/news/news-and-archive/dnbulletin-2020/dnb388309.jsp>

7 [http://www3.weforum.org/docs/WEF\\_CBDC\\_Policymaker\\_Toolkit.pdf](http://www3.weforum.org/docs/WEF_CBDC_Policymaker_Toolkit.pdf)

8 <https://www.ecb.europa.eu/press/key/date/2020/html/ecb.sp200707~3eebd4e721.en.html>

The Regulation distinguishes between three different types of crypto-assets that should be subject to specific requirements.

- Firstly, utility tokens are mentioned. These crypto-assets should be considered as a specific type of crypto-asset as, in many cases, they have a non-financial purpose.
- Secondly, asset-referenced tokens with a payment functionality are mentioned. These crypto-assets aim at maintaining a stable value by referencing a number of currencies, one or more commodities, one or more crypto-assets, or a basket of such assets.
- Thirdly, crypto-assets that are used as a means of payment and which aim to stabilize their value by referencing only one fiat currency that is legal tender. This type of crypto-asset has a function that is very close to electronic money.

The proposed Regulation would bring us clarity regarding the crypto-assets types mentioned above. In addition, this Regulation should also aim at regulating entities which provide services and activities related to crypto-assets. These main 'crypto-asset services' consist in ensuring the operation of a trading platform for crypto-assets, in exchanging crypto-assets against fiat currencies or other crypto-assets by dealing on own account, and finally the activity consisting in ensuring the custody and administration of crypto-assets or the control of means to access such crypto-assets, on behalf of third parties. Other services, such as the placement of crypto-assets, the reception or transmission of orders for crypto-assets, the execution of orders for crypto-assets, the advice on crypto-assets and the payment transactions in asset-referenced tokens should also be in the scope of this Regulation. Any person which provides any crypto-asset service, on a professional basis, should be considered as a 'crypto-asset service provider' and should be subject to MiCA.

Also, it seems that the proposal gives financial institutions room to operate in the crypto domain or engage in issuance of stablecoins based on their banking license. However, it is recognized that when a crypto-asset would qualify as a financial instrument under MiFID II ('security tokens'), there is a lack of clarity about how the existing regulatory framework for financial services applies to such assets and the services related to them. Hence, as this type of crypto-asset is out of scope of the proposed Regulation, this unclarity continues to exist. MiCA aims for a broad scope, but there is still a lot of unclarity on how this will be implemented in practice considering other EU financial regulations.

## 2 Opportunities presented by crypto-assets

- ● Crypto-assets bring benefits to the financial ecosystem

Representing assets on DLT brings many advantages for their issuers, their uses and regulators. Primary benefits include that crypto-assets are cheaper and more secure than with traditional database records. Crypto-assets and tokenization could bring benefits such as fractional ownership, instant settlement of a trade, transfer and/or instant valuation. Furthermore, they enable flexibility and fungibility of assets. The benefits have also been identified as part of the Dutch 2Tokens project which brings together a wide range of stakeholders in the crypto-asset ecosystem.

### **Interchangeability, liquidity and programmability**

Crypto-assets offer some unique features compared to traditional securities. Their core promise is increased liquidity of assets as a result of reduced trading frictions and 24/7 execution. Crypto-assets enable liquidity for previously illiquid assets by issuing a security token that digitally represents a tradeable asset.

Crypto-assets are programmable and they offer new opportunities for companies to be more flexible with regard to ownership (share), voting rights, dividends and financing. It becomes possible to embed governance and the rules of shareholders and corporates into the tokens' smart contracts, so that they are automatically enforced.

Crypto-assets could also enhance liquidity as they enable fractional ownership. This enables small investors to invest in anything, starting with just a few cents. Anyone anywhere can become a shareholder in anything that is tokenized. Crypto-assets could democratize finance. Fractional ownership could potentially open up the world's illiquid assets and make assets highly liquid.

### **Transparency, security and compliance**

Crypto-assets can make financial transactions cheaper, faster and more secure and they also offer more transparency to understanding transactions across stakeholders. Tokenization will increase trust amongst stakeholders as agreements can be put into smart contracts and put on chain to automatically record and execute them.

Compliance can be enforced automatically as rules can be embedded in the code. For example, shareholders agreements can be programmed into the crypto-asset and, consequently, governance will be performed automatically. Reliable real-time audit of an accounting system increases confidence in business and strengthens relationships. Regulators can monitor real-time and perform on demand surveys and audits. This will remove frictions in the economy and reduce the cost of both transactions and compliance.

## New asset class and decentralised financing models

Crypto-assets are increasingly considered to be a new asset class for investors in their diversification strategy, also resulting in the increased exposure of Financial Institutions (FIs). In some countries such as the US, Switzerland, UK, France and Germany, we see incumbents starting to offer the first crypto-asset services.

Crypto-assets such as security tokens lower the barriers to entry for raising capital. Not only because it is faster and cheaper to facilitate, but also because it enables a wider investor reach. As a result, companies and start-ups can build an ecosystem faster with tokens, involving all stakeholders. For example, they can replace the current crowdfunding methodology as token funding will be more secure, transparent and effective. If companies can fund their initiative more quickly, it is beneficial to the competitiveness of the Netherlands and to Europe.

CB Insights reports that the funding of crypto infrastructure has continued in 2019 (\$2.8B)<sup>9</sup>, with investors mainly focusing on custody, tax advisory, data driven advisory services, and protocol infrastructure to improve the industry's user experience.

The first incumbents are expanding custody and trading products to benefit from crypto. Fidelity Digital Assets, for example, received a charter in 2019 from the New York State Department of Financial Services that allows it to operate a virtual currency custody and trade execution platform. According to CB Insights, so-called Decentralized finance (DeFi) has continued to grow with applications that create many traditional financial instruments on decentralized networks.

## ● ● Crypto-assets bring benefits to the Dutch economy

We believe crypto-assets and tokenization are able to transform our economy and financial sector. Crypto-assets will be an important accelerator for digital economic growth. This could significantly impact the financial markets and processes. If so, this will change the way individuals, companies and institutions transact and share value with each other, also across borders.

The Netherlands aims to be a frontrunner in fintech innovation<sup>10</sup>, with a thriving start-up scene of more than 600 fintech companies. Several partnerships such as Dutch Digital Delta, the Dutch Blockchain Coalition (DBC) and 2Tokens connect industry sectors, governments, knowledge institutions, corporates and start-ups to accelerate and drive IT, technologies and innovation in a 'typical Dutch collaborative setting'. Dutch banks and insurance companies are actively embracing innovation and are collaborating with fintech start-ups and other collaborative partnerships.

A strong financial sector is important to the Dutch economy and a driver for economic growth. To stay on top of the developments and to remain a strong financial centre in Europe, the Netherlands should aspire to play a driving role in the innovation and regulation of crypto-assets and tokenization. Financial innovation in this area is growing

9 [CB Insights Blockchain Report 2020](#)

10 <https://www.rijksoverheid.nl/documenten/kamerstukken/2020/07/03/aanbiedingsbrief-fintech-actieplan>

in countries with an established and supportive regulatory and innovative climate towards tokenization. Competition is increasing as surrounding countries, such as Germany, Switzerland and France, have in the meanwhile formulated a national strategy regarding this topic and announced laws and regulations. As a result, they have seen the emergence of a crypto-asset ecosystem involving fintechs, regulated market infrastructure providers and increasingly banks working on mainstream solutions.

The Netherlands is well positioned to play a leading role in the transition to financial decentralization, but the challenges are diverse and currently the lack of a defined national crypto-asset strategy, infrastructure and oversight puts a brake on digital economic activities and the adoption of crypto asset services. This can rapidly result in the Netherlands losing the connection with this highly international and sophisticated ecosystem. This, in turn, will have an impact on the near-future position of the Netherlands as a European financial centre and fintech hub.

## ● ● Crypto-assets bring opportunities to the financial sector

The crypto-asset value chain is like and unlike the current financial system. The emerging services for this tokenized economy seem largely similar: issuance, trading, custody and operating the enabling infrastructure for the crypto-assets. Although these new business opportunities sound familiar, they do require different capabilities and concepts for markets, institutions and investors. Access to crypto-assets is still somehow physical to a degree and it requires (digital) trust. This implies a need for new, trusted approaches when it comes to the three main business areas of **issuance, trading and especially custody services**.

### **Crypto-assets issuance**

One of the main business areas and the start for every business process in this context, is the issuance of crypto-assets, meaning the tokenization of any bankable or non-bankable assets. Tokenization service providers need to provide technical solutions that are well aligned with regulatory requirements. Ultimately – in the future for tokenized assets – (almost) everything could potentially be tokenized.

The possibilities are endless and issuance agents will need to perform new processes when creating new financial products on a blockchain and when carefully assessing their client's needs. With evolving regulations, there might be new frameworks to issue digital shares directly in the form of digital tokens with new legal forms and new ways and means to evidence investors' rights. For example, in August 2020, German authorities introduced a draft bill regarding digital securities that includes blockchain-based securities.

However, this is not only about designing new technical applications and adhering to new legal frameworks. MiFID II, for example, applies to asset and security tokens, meaning that specific compliance requirements need to be adhered to. We believe specific financial intermediary and advisory services will also continue to exist, but geared to the new digital business setting.

### New role of banks

The more complex and substantial that debt and equity financing arrangements become, the more need there is for surrounding expertise and intermediary services. Incumbent banks could maintain their financial arranging and advisory role to their clients when they include these alternative means of tokenized issuing and funding in their corporate financing roadmaps. Banks' advising capabilities with regard to optimizing the capital and debt funding requirements of their clients will remain relevant, as will their Merger & Acquisition services. This also goes for their handling of debt financing and IPO processes (tokenized or not), including their underwriting and investor matching capabilities. Their role in important due diligence and investor protection requirements, such as examining the company's financial statements for accuracy and publishing a (voluntary) prospectus that explains the offering to investors, could be just as important in the new setting of crypto-assets.

### Examples

- **Société Générale issued the first covered bond as a security token on a public blockchain** – On 18 April 2019, Société Générale SFH, a subsidiary of Société Générale Group, issued EUR 100m of covered bonds ('obligations de financement de l'habitat' or 'OFH') as a security token, directly registered on the Ethereum public blockchain. OFH Tokens have been rated Aaa / AAA by Moody's and Fitch and have been fully subscribed by Société Générale.
- **Bitbond celebrates Security Token Offering (STO) raising \$2.3m** (July 2019) – The token offering makes Bitbond the first issuer to have its prospectus approved by BaFin, Germany's security regulator.
- **France first regulated ICO** – In December 2019, the French Autorité des Marchés Financiers grants its first optional approval to an initial coin offering (ICO). The PACTE law introduced an optional visa regime for fundraising in crypto-assets. Only public offerings of so-called utility tokens, which are not considered as financial instruments, are eligible for this optional visa. This first public offering is being made by French ICO, a company which has developed a platform for fundraising in crypto-assets. The approval is granted until 1 June 2020. This ICO is available in the list of offerings that have received the Authority approval. <https://www.amf-france.org/en/news-publications/news-releases/amf-news-releases/amf-grants-its-first-optional-approval-initial-coin-offering-ico>
- In August 2020 Singapore Exchange (SGX) completed a digital bond issuance on SGX's digital asset issuance, depository and servicing platform, in collaboration with HSBC Singapore and Temasek. The transaction replicated a S\$400 million 5.5-year public bond issue and a follow-on S\$100 million tap of the same issue by Olam International.

## **Crypto-asset trading: infrastructure and services**

In the crypto-asset space, there are already markets and initiatives operational which build on a regulated and reliable digital infrastructure. Several exchanges and businesses are processing crypto-assets in a highly efficient and compliant manner. Often these premises are operating in a jurisdiction-agnostic manner and at a fraction of the operating costs of incumbent market operators. For example, crypto exchange Binance, founded in 2017, hit the \$1 billion mark in cumulative profit in Sept 2019 with just over 740 employees.

Combining forces and expertise by fintechs and forward-looking traditional financial players is increasingly taking shape. The trading area offers business opportunities for (a) market infrastructure services and (b) the broker/dealer/arranger business.

### **(A) Market infrastructure services**

Two types of players have the greatest potential for establishing a significant market share in the crypto asset markets: high performing crypto exchanges and traditional finance market operators. Existing crypto-asset exchanges such as Coinbase, Kraken and Binance have key advantages such as multi-jurisdiction regulatory compliance, an established clientele, strong technological skills, a strong brand value and a track record in digital exchange services. Simply put, these exchanges are already on the ball and need to extend to a new crypto-asset infrastructure only. Potential challengers need to disrupt and outperform these current players and their critical mass.

However, the traditional financial market players have also been moving into the area, often stimulated by pro-active regulatory regimes. For example, since 2018, SIX Swiss Stock Exchange has designed and operates a fully integrated trading, settlement and custody infrastructure for crypto-assets. SIX is regulated as an operator of Financial Market Infrastructure (FMI) and the crypto-asset market is subject to the same standard of oversight and regulation. Recently, Nasdaq announced a partnering with DLT enterprise R3 to build institution-grade crypto-assets and marketplaces.

### **New role of banks**

As the size and the level of sophistication grows, the more connected crypto-assets become with the traditional financial 'fiat' world. This opens up opportunities for banks that have included crypto-assets in their innovation and business agenda. Some banks have already moved into crypto-asset infrastructures via venture investments in crypto exchanges and services. Furthermore, the banking sector is increasingly active in facilitating the digital (asset) trading platforms of tomorrow. This is often sparked through partnerships involving other banks, clients and technology providers. These partnerships allow banks to explore crypto-assets and the new business models they might bring, including platform ownership and plug-in services.

## Examples

- [Pyctor](#) is a decentralised permission network that aims to provide digital asset safekeeping and transaction services, with a focus on regulated security tokens issued either on private or public blockchain. Beyond the initial focus on digital assets custody (based on private key management offered at wallet's investor level and issuer's smart contract level), Pyctor will create a digital assets market infrastructure enabling accesses and transfers of those tokens at scale with a regulated first approach on both primary market (atomic swap with cash on ledger) as well as secondary market (settlement with digital assets CSD). It has patented its operating model and is differentiating itself from competitors by being the most token agnostic and most decentralized solution in the market thanks to its network of financial institutions. Pyctor is made by FIs for FIs: led by ING in collaboration with ABN AMRO, BNP Paribas Securities Services, Invesco, Societe Generale – Forge, State Street, UBS and others.
- [SIX Digital Exchange \(SDX\)](#) in Switzerland – a fully integrated issuance, trading, settlement and custody infrastructure for digital assets is being built, enjoying the same standard of oversight and regulation by FINMA.
- [Bakkt](#) – from Intercontinental Exchange (ICE), owner of the New York Stock Exchange – focuses on unlocking the value of crypto-assets (\$1.2+ trillion) that is currently held in cryptocurrencies, rewards and loyalty points, gaming assets and merchant stored value.

### (B) The broker/dealer/arranger business

The tokenized listed and non-listed trading business will continue to offer opportunities for those brokers and dealers that join ranks in the new way. There are already different marketplaces established around the globe specializing in various kinds of crypto-assets. Some are combining new and old market mechanisms. Some are specializing in the trading of tokenized equities of SMEs or tokenized non-bankable assets. This, in turn, leads to lower costs and improved processes, offering an enlarged investment universe to a broader range of investors.

### Role of banks

Institutional investors are gradually starting to diversify their portfolios into crypto-assets. It will be a matter of time before these investors will move further into crypto investments as they reach a certain stage of maturity. JP Morgan was the first bank labelling Bitcoin and crypto-assets a new asset class and to be treated as such. Banks should start to explore how and when to include crypto-assets, like security tokens, in their investment banking, financial advisory, asset management, personal wealth management, private banking and retail banking services.

## Examples

- Bakkt (from ICE) offering fully regulated end-to-end Bitcoin Futures & Options (Markets product) and a consumer (aggregated) digital wallet in order to manage all crypto asset accounts.
- Global players such as Coinbase and Binance are gearing up compliance to trade tokenized securities.
- Visa has granted its principal membership to cryptocurrency company Coinbase. The membership cuts out a crucial, and expensive middleman from the process of issuing a debit card that lets users spend their own bitcoin, ether and XRP anywhere Visa is accepted. Perhaps even more importantly, the principal membership makes Coinbase the first cryptocurrency company with the power to issue debit cards for others, including other cryptocurrency companies and more traditional firms alike.

## Crypto-assets: Custody services

In a growing crypto-asset market, we see the first crypto custody providers consolidating and partnering to build critical mass. To date, the current infrastructure still lacks financial institutions offering safeguarding and managing of private keys. However, with countries such as Germany and Switzerland further shaping their regulatory framework, things are about to change. Since, in Germany, BaFin stipulated that crypto custody has become a financial service within the meaning of the German Banking Act (KWG), the first banks are moving prudently into crypto services. As trusted guardians of assets, banks could play a role in providing 'digital vault' services for their institutional and retail clients.

### Institutional clients

A growing number of professional investors are active in the crypto asset market. For the safeguarding of their crypto-assets, these investors can choose between (a mix of) custodial exchanges, third-party custodians and self-custody. Institutional investors still find themselves ill-equipped or mandated to handle crypto-assets, especially their access keys and the security processes. They would also welcome a more seamless integration into their institutions' backends, as well as smart interfaces to their trading operations and the financial flows into their banks. This opens opportunities for banks as a trusted and integrated provider of both financial and custodial services, including crypto wallet services.

### Retail clients

A trusted custodial wallet solution could especially offer advantages to retail investors that want to rely on a 'digital safe' type of storage with a trusted party. Despite being discouraged by regulators because of the high-risk nature of crypto-assets, a large group of private and retail investors continue to invest in crypto-assets. Although numbers and amounts have decreased during the 'crypto-winter', current market capitalization is still moving around USD 250 billion according to Coinmarketcap. There is an especially high penetration among younger (millennials) age groups and we believe that crypto will

gradually grow along with the generations, especially as the mobile investments apps are becoming more and more user friendly.

In this new space, new and some traditional tech players have been taking the lead and are competing for market share. Rapidly growing and maturing fintech companies such as Coinbase and Binance have established themselves as specialized and compliant players gradually extending their portfolio further into the crypto-asset space. Fintechs like Robin Hood, Square and Revolut have integrated cryptocurrencies in their mainstream client offerings and are introducing more investment classes such as gold, securities and Fund of Funds in their apps. Introducing security tokens or other crypto-assets could become a logical extension in due course.

#### Role of banks

In terms of safekeeping, clients might prefer their private keys being handled by a bank that they trust instead of relying on another party or on their own private wallet solutions. Furthermore, aggregation with their main financial asset and tax planning could be another advantage. Duty of care might become an advantage point for banks in being the provider of customer wallet services. Banks are required and well-equipped to inform and educate clients about safety and investment risks and, at the same time, they are able to protect clients from cyber security risks such as private key theft and phishing.

#### Examples

- After the update of the AML Act in January 2020, permitting banks and other financial institutions to extend their offerings to include crypto-assets such as XRP, Ether and Bitcoin, Germany's BaFin, has received over 40 applications from German banks interested in offering crypto custody services.
- Neobank Revolut already offers crypto services as part of its retail offering, bringing custody services into the online banking environment, also for Dutch retail customers.
- KB Kookmin, the largest bank in South Korea, is set to launch a crypto custody service. The bank has filed a trademark application for 'KBDAC' – KB Digital Asset Custody.

# 3 Managing risks associated with crypto-assets

## ● ● Identifying the main risks

As a new asset class, crypto-assets also introduce new challenges. The dynamic evolution of crypto business activities inevitably brings risks: both new, as well as familiar risks. These risks have been widely covered by various supervisors, including ways to mitigate these risks.

The UK Crypto-assets Taskforce Final Report 2018<sup>11</sup> identified a range of risks associated with crypto-assets with the main risks being:

- **Financial crime risk**, the opportunities for crypto-assets to be used for illicit activity and cyber threats;
- **Consumers/ Investors risk**, users may buy unsuitable products, face large losses, be exposed to fraudulent activity, struggle to access market services, and be exposed to the failings of service providers;
- **Market integrity risk**, which may lead to consumer losses or damage confidence in the market;
- **Systemic and financial stability risk**, increasing with further market growth and wider use of crypto, including: effective price discovery, appropriate transparency, market integrity, and fair access.

The EC has been following crypto-asset developments and markets for several years and actively contributes to international work on crypto-assets, for example through the G7, BCBS, FSB and FATF. In January 2019, EU Supervisory authorities EBA and ESMA published their advice to the EC regarding the regulation of crypto assets. In their January 2019 report, ESMA<sup>12</sup> mentioned that it is concerned about risks crypto-assets pose to investor protection and market integrity. The most significant risks mentioned were fraud, cyber-attacks, money laundering, and market manipulation.

On 12 February 2020, the Board of the International Organization of Securities Commissions ('IOSCO') released its report<sup>13</sup> describing the risks associated with crypto-asset trading platforms ('CTPs') and it sets forth key considerations for regulators in addressing such risks. The report notes that many are similar to the issues and risks associated with trading traditional securities or financial instruments on trading venues.

11 HM Treasury, FCA & BoE: Crypto-assets Taskforce: final report, October 2018.

12 <https://www.esma.europa.eu/press-news/esma-news/crypto-assets-need-common-eu-wide-approach-ensure-investor-protection>.

13 IOSCO: Issues, Risks and Regulatory Considerations Relating to Crypto-Asset Trading Platforms, February 2020.

Consequently, IOSCO states that the three core objectives of securities regulation are as relevant in the crypto-asset context as they are for the traditional markets. The three core objectives are: (1) protection of investors; (2) ensuring that markets are fair, efficient and transparent; and (3) reduction of systemic risk.

## ● ● Financial Crime Risks

Crypto-assets undeniably pose risks around criminal activity such as money laundering and terrorist financing because of their online accessibility, their global reach and their pseudo-anonymous nature.

Crypto-assets can play a role in laundering the proceeds of cybercrime (including ransomware) and could potentially act as a payment method between criminals and for the purchase of illicit tools or services sold online in criminal marketplaces. Law enforcement authorities are also increasingly identifying cases of crypto-assets being used to launder the illicit proceeds of offline crime. Attractive features include the anonymity afforded by crypto-asset ATMs, by peer-to-peer exchange facilities, and by the privacy features of some coins.

Europol estimates that EUR 3-4 billion is laundered using crypto-assets each year in Europe; however, this remains a small proportion of total funds laundered in Europe, estimated at EUR100 billion. As crypto-assets are becoming increasingly accessible and mainstream, the risks of crypto-assets being used in money laundering are expected to grow accordingly. This is underlined by a 2019 FATF report to the G20 noting that suspicious transaction reporting linked to crypto-assets is rising globally.

For firms buying and selling crypto-assets in the EU, AMLD5 will require them to register with national financial regulators via appropriate licensing in every jurisdiction. It also states minimum requirements for AML processes, similar to what we see with traditional asset classes.

Among the most notable changes are that VASPs (virtual asset service providers) will have to follow Know-Your-Customer (KYC) rules. Cryptocurrency platforms and wallet providers are required to identify their customers for anti-money laundering purposes. All transactions will have to be monitored and companies will need to file Suspicious Activity Reports (SARs) with law enforcement agencies. The new KYC mechanism requires a personal ID when opening an account on EU-operating exchanges. The proof-of-identity would serve as insurance for not making any illicit financial operations.

While these measures address the main concerns, we believe AMLD5 needs further adjustments. Crypto-to-crypto controls are not included in AMLD5 thus they do not require licensing or registration, while miners are also not 'obliged entities'. This constitutes a critical weakness in the effectiveness of AMLD5 in stopping money laundering and terrorism financing. The European Parliament's Study on Cryptocurrencies and Blockchain (July 2018) concludes: "When we look at the key players in cryptocurrency markets, we can see that a number of those are not included in AMLD5, leaving blind spots in the fight against money laundering, terrorist financing and tax evasion," Member states are nonetheless free to adopt stronger regulations and 'gold-plating' exists.

In the Netherlands, cryptocurrency service providers, such as banks, need to comply with the Dutch Sanctions Act 1977. Pursuant to this act, service providers are required to freeze the assets of clients if such clients are sanctioned by public authorities such as the US OFAC, European Commission and the Dutch Government. DNB will supervise compliance with the WWFT and Sanctions Act 1977.

## ● ● Consumer investor risks

Some crypto-assets are considered as a means of payment, others as an asset, others as utility and some as a hybrid of sorts. This poses challenges for legal and regulatory frameworks, but also for 'users'. Crypto-assets can pose substantial risks to investors, in particular for retail customers. Crypto-assets can be high-risk and speculative and understanding and continuously updating the full extent of risks can be a challenge, even for highly professional investors.

The fact that crypto-assets are (still) unregulated and not always clearly classified by both governments and central banks does not help investor and consumer protection, nor does it help in guiding these markets towards maturity.

The most evident risks to (consumer) investors stem from the immaturity or failings of market infrastructures and services. For example, crypto-assets are highly volatile: unexpected changes in market sentiment can lead to sharp and sudden moves in price. They can also be affected by so-called forks or discontinuation. Market abuse, frauds and deceptive practices are a recurring phenomenon.

Insufficient consumer understanding stems from the complexity of these products and a lack of available information and appropriate warnings. Advertising of crypto-assets, which is often targeted at retail investors, appeal to fear-of-missing-out (FOMO) and can be misleading or incorrect. As a result, investors could be buying crypto-assets that are not suitable for their needs, are poorly valued or priced, while being unaware of the associated risks and design flaws.

Crypto-assets can be susceptible to error and hacking: there is no perfect way to prevent technical glitches, human error or hacking. Exchanges and wallet providers are increasingly targeted by cybercriminals looking for weaknesses in their systems and controls in order to obtain the private keys which enable investors to access and transfer their crypto-assets.

In terms of consumer protection, the crypto-asset markets still have large omissions. This had led authorities such as AFM, DNB and their peers in other jurisdictions to send clear warnings early-on. Aimed especially at the protection of retail investors, they advised that the best way to approach this investment is with caution. In practice, they have been actively trying to discourage (retail) investors. AFM issued a warning regarding serious risks associated with ICOs, recognizing their unregulated status and advising consumers to avoid investing in ICOs.

Interestingly, this has not yet resulted in comprehensive consumer/investor protection regulation in many jurisdictions. Only a few countries have taken decisive measures to protect their consumers and markets: they have forbidden crypto-assets in general or for specific groups such as non-qualified investors. However, we believe the answer should be in strengthening the supply-side performance instead of simply prohibiting the demand-side from accessing these growing, globally accessible services.

Apart from the early warning signals and preventing the regulated traditional financial industry from engaging, most jurisdictions have not yet outlined consumer protection measures to VASPs similar to the ones imposed on the financial sector which include duty-of-care, depositary guarantees or requirements for insurance, wallet security and liquidity reserves.

On the side of VASPs and some reputable and/or regulated exchanges in particular, we have seen notable efforts in enhancing the customer journey, applying 'fiduciary duties' such as safeguarding and administering of client assets, and establishing an educational and informative dialogue with their investor communities. While there have been various attempts to create crypto industry standards regarding investor protection and duty of care, this has not yet resulted in the imposition of formal and harmonised standards

We believe the banks can also help drive the design and implementation of operating and market standards ensuring a broad investor protection. As banks are effectuating their fiduciary and duty-of-care role in the traditional financial services, they could assume a similar role and implement similar standards for their clients known to be investing in crypto-assets. For example, by providing in-bank crypto custodial wallet services that include education and protection, or provide these services to clients investing in crypto-assets via other exchanges or financial apps.

## ● ● Market integrity risk

Although gradually improving, the market integrity of crypto-asset markets is still raising concerns among authorities and the financial industry alike. Crypto-assets and derivative markets are still vulnerable to issues such as varying levels of maturity, illiquidity, market abuse and a lack of market transparency. This may damage confidence, harm (retail) investors protection, as we have seen in the previous paragraph, and prevent the market from operating fair and effectively.

Since 2019, we have been observing advances in the area of regulation to further guide the crypto markets on their roadmap to maturity. On 12 February, the IOSCO published its final report on 'Issues, Risks and Regulatory Considerations Relating to Crypto-Asset Trading Platforms (CTPs)'. IOSCO identifies existing IOSCO Principles, which also apply to CTPs, and combines them with additional insights. The aim is to ensure investor protection and confidence together with fair, transparent and efficient markets.

Since IOSCO members are national securities regulators, the purpose of the Final Report is to provide these regulators with a toolkit to use when assessing and regulating CTPs split into seven areas of focus:

- Access to CTPs (focusing on access criteria and participant on-boarding);
- Safeguarding Participants' Assets (such as custody models and wallets for crypto-assets);
- Conflicts of Interest (and the impact of conflicts on investor protection and market efficiency);
- Operations of CTPs (specifically, whether operational information is available to the public);
- Market Integrity (such as trade monitoring to detect and prevent fraud);
- Price Discovery (including pre- and post-trade transparency);
- Technology (focusing on systems resilience).

Banks have expertise in creating and maintaining market infrastructures. Their collaboration with other relevant parties such as central banks, new entrants and international commissions can evolve in adjusted and/or new market infrastructures. Meeting the strict and strong demands regarding market infrastructures is crucial. For example, BIS and IOSCO also issued the Principles for Financial Market Infrastructures (PFMI): international standards for financial market infrastructures, i.e. payment systems, central securities depositories, securities settlement systems, central counterparties and trade repositories. The PFMI are part of a set of 12 key standards that the international community considers essential to strengthening and preserving financial stability. Although topics like 'central' might need a different interpretation in the new, decentralised crypto asset-setting, standards remain an essential building block for stable and mature markets and banks are actively engaging in finding the way forward.

However, there are still differences in the approaches to regulation in various jurisdictions. Countries such as Japan, Korea, US, Australia and Singapore have been addressing market integrity and market infrastructures, often fitting it into existing regulation or having made specific adjustments. Japan has agreed on a degree of self-regulation for the crypto-asset industry.

## ● ● Systemic and financial stability risk

The traditional financial system is increasingly exposed to crypto-assets through various channels. This could transmit risks from the crypto-asset market into the formal monetary and financial system. ECB has stated that crypto-assets may eventually weaken financial system integrity and expose markets to risks such as minimal liquidity, leverage usage, volatility, security and operational risks.

In 2018, the Financial Policy Committee in the UK (FPC) mentioned 'transmission channels' that could impact financial stability that would be monitored such as:

- Use of crypto-assets in payments and settlement;
- Exposure of systemically important financial institutions to crypto-assets;
- Links between crypto-asset markets and systemically important markets.

The G7 ‘Stablecoins’ Task Force concluded that especially ‘global stablecoins’ could become vectors of systemic risk, which is why European institutions state that such arrangements “should not begin operation in the EU until the legal, regulatory and oversight challenges and risks have been adequately identified and addressed”.

This underlines the importance of regulatory legal and market frameworks for crypto-assets, including non-regulated ‘stablecoin’ arrangements. The NVB subscribes to the viewpoint that stablecoins are an important market segment of crypto-assets that are not covered by the existing EU financial services legislation and thus require dedicated rules due to their specific attributes.

## ● ● Technology and other risks

DLT platforms including crypto-assets are constantly maturing which implies that the technological challenges of today might well be solved in the future. Some of the biggest challenges of the crypto economy are being resolved at a fast pace, such as customer experience, efficiency and scalability. However, DLT is still being identified in terms such as bad reputation, false promises of decentralization, malware and ransomware, security & governance issues and blockchain resiliency.

While DLT developers are often dealing with the problems at a fast pace, there is also no such thing as ‘one’ blockchain. The relevance of these challenges very much depends on the specific use case of the crypto-asset and the underlying protocol.

For some DLT technologies, issues such as high energy and limited transaction capacity still remain, but also serve a purpose for specific cases or upholding decentralized resiliency. For example, while the bitcoin blockchain has proven to be among the most cyber resilient innovations thus far, the weakest link has been at the interface – relatively inexperienced users and firms that plug into the bitcoin protocol, with often lax cybersecurity standards. This can result in risks as simple as “losing the private key when disposing of one’s computer” and as complex as ransomware attacks and everything in between.

The crypto-asset industry is shifting its focus to mitigating these risks by increasing efforts to improve security, compliance and reputation. At the same time, we also see traditional players such as banks, securities exchanges and large tech firms entering the market which will accelerate market maturity. These players have a strong reputation and deep knowledge of regulation, finance and cyber security.

## ● ● The role of banks

While the aforementioned risks are real, they are already part of the financial services industry. Most of these risks have been well covered in existing regulation and targeted initiatives could be introduced for crypto-assets. Creating a well-defined regulatory environment and bring crypto-assets inside the regulatory perimeter to mitigate these risks is therefore the way forward. Incumbent banks have ample experience in mitigating many of these risks. In the traditional economy, banks play a vital role as gatekeepers in maintaining compliance with laws, rules, and regulations, including those related to investor protection, market surveillance, anti-money laundering (AML), financial crime prevention, and fraud.

Maintaining this integrity is a continuous challenge that the traditional financial sector faces and this capability might be undervalued at times. This regulatory responsibility can only be met by upholding expertise, substantial resources, and fostering a constructive dialogue with the public sector, clients and other stakeholders. It also concerns a balancing act for banks in optimizing their customers' journeys.

In the cryptocurrency markets, 'following the money' brings entirely new challenges requiring different skills and tools, with the interface between cyberspace and the real world remaining one of the critical gates. Therefore, the traditional financial services 'gatekeepers' in payments, securities, and commodities will remain critical guardians at the gate between digital currencies and fiat currencies.

*The Dutch Banking Association believes that banks are well-equipped to work constructively with governments and regulators, and with well-regulated fintechs active in the crypto-asset space. Enabling banks to put their experience and capabilities into use, will contribute to the regulatory and risk mitigation efforts associated with crypto-assets. Financial Institutions can further leverage and monetize on their role and capabilities, connecting both worlds by closing the gaps.*

## 4 An innovation-friendly regulatory framework for crypto-assets

As already argued, digitalization and new technologies are significantly transforming the financial system and the way it provides financial services to businesses and consumers. Highlighted in the previous chapters, we believe that both the opportunities provided by crypto-assets should be reaped and that the risks could be mitigated.

A more innovation-friendly approach both in Europe and the Netherlands will serve as an important driver and enabler for the economic benefits associated with crypto-assets. As stated by the European Commission, it is crucial that Europe grasps all the potential of the digital age and strengthens its industry and innovation capacity, within safe and ethical boundaries<sup>14</sup>.

The Netherlands is well positioned to be at the forefront of crypto-assets and tokenization. This would benefit competitiveness, create new finance models and provide better access to capital. As other member states including France, Germany, and Luxemburg increasingly compete to become the European leader in tokenization, the Netherlands will need to step up its efforts.

If the Netherlands wants to grasp the potential of the digital age fully and to strengthen its innovation capacity in digital finance in general and more specifically in crypto-assets, it is crucial that the Dutch government promotes an European regulatory framework that fosters the development of tokenization while facilitating its uptake in the Netherlands at the same time.

To achieve this goal, the Dutch Banking Association recommends a two-stage approach.

- 1 **Take a leading role in creating a harmonized European regulatory framework** as well as creating legal clarity via a well-defined taxonomy and regulatory initiatives at EU level to adapt the current legal framework for the use of crypto-assets.
- 2 **Build on the opportunity for the Netherlands to become a European leader in crypto-assets** by facilitating and promoting the use of tokenization in the Netherlands in close cooperation with regulators, supervisors, industry representatives and market participants.

14 [https://ec.europa.eu/info/sites/info/files/business\\_economy\\_euro/banking\\_and\\_finance/documents/2019-crypto-assets-consultation-document\\_en.pdf](https://ec.europa.eu/info/sites/info/files/business_economy_euro/banking_and_finance/documents/2019-crypto-assets-consultation-document_en.pdf).

- ● A harmonized European regulatory framework for crypto-assets

### **A uniform legal definition at EU level**

Globally, the absence of a defined legal framework for crypto-assets is one of the most pressing issues for the crypto-asset space. The novel and sometimes hybrid structure of crypto-assets is still resulting in legal uncertainties and varying interpretations across jurisdictions. In the EU, cryptocurrencies (payment tokens) and utility tokens remain mostly unregulated. For crypto-assets that qualify as financial instruments (e.g. security tokens, crypto futures and options), regulation applicable under MiFID II about whether and how existing financial services legislation applies to crypto-assets is often unclear and fragmented.

The global patchwork of U.S. federal and state, EU-wide and state and other individual state regulations governing the crypto industry, has created a complex, fragmented and challenging regulatory climate for crypto businesses. The varying jurisdictional oversight can further lead to regulatory arbitrage, gaps, overlaps, and conflicts across various jurisdictions.

### **Build on existing regulations**

Furthermore, we see no need for additional, dedicated regulation of blockchain or DLT over and above the existing regulation governing securities, capital markets and banks. Existing requirements should – where necessary – be explicitly extended to DLT solutions in order to avoid regulatory gaps.

For crypto-assets that qualify as financial instruments (e.g. security tokens), what is most important is whether and how existing financial services legislation applies to crypto-assets. This can be achieved by providing guidance about how existing sectoral legislation applies to crypto-assets in relation to the Prospectus Regulation, MiFID II, the Central Security Depository Regulation and the Settlement Finality Directive.

As these directives were not written with tokens in mind, this would justify targeted amendments to existing financial services legislation. But national legislation also needs to be amended to accommodate crypto-assets. For example, at a national level, legislation needs to be amended to remove the unnecessarily restrictive definition of securities to reflect the broader definition used in European legislation<sup>15</sup>. This would allow supervisors to include certain crypto-assets within the scope of its supervisory perimeter.

.....  
<sup>15</sup> <https://www.dnb.nl/en/news/news-and-archive/Nieuws2019/dnb381599.jsp>.

At a European level, we need to acknowledge that the current regulatory framework is largely based on centralised schemes and responsibilities (i.e. CSDs, CCPs) and is not written with (decentralized) tokens in mind, thus creating regulatory obstacles for clearing, settlement and custody. In a DLT environment, it is difficult to identify a subject with the role of a 'central security depository'. A regulatory sandbox could be a possible solution in order to define custodial and safekeeping requirements for crypto-assets.

### **Establish a European crypto-asset taxonomy**

Classification of crypto-assets is an important first step. Today, we already see regulators in other countries taking an active approach towards classifying crypto-assets. The German Financial Supervisory Authority, BaFin, in Germany classifies tokens as a separate class of securities. Under the German Capital Investment Act, traditional capital investments are not usually considered as securities. This is because they cannot be compared with securities in terms of transferability, standardisation or negotiability. This is changing due to blockchain technology.

As a result, the two financial instruments might merge together. It is this legal clarity that allows companies to pursue token offerings. At the beginning of 2019, BaFin approved the first securities prospectus for a security token offering. This was accomplished by close collaboration between regulators and market participants.<sup>16</sup> In March 2020, BaFin approved the first cross-border security token offering. Retail investors in Germany – along with investors from 21 European countries – can now invest in the STO of the company.

### **Best practices for a regulatory framework in Europe**

Best practices for the developments of the regulatory framework can be best found in Germany, Switzerland, France and the UK:

- As demonstrated in Germany, classification is an important first step;
- In Switzerland, issuing guidelines helps companies to understand how tokens are treated and what can be expected from them by authorities;
- In France, review and analysis of the application of regulation to tokens can identify important conclusions and next steps;
- For the UK, the FCA Final Guidance enables market participants to understand whether the crypto-assets they engage in are within the regulatory perimeter. This will alert market participants to pertinent issues and should help them better understand compliance.

.....  
<sup>16</sup> [https://www.bafin.de/SharedDocs/Veroeffentlichungen/EN/Fachartikel/2019/fa\\_bj\\_1904\\_Tokenisierung\\_en.html](https://www.bafin.de/SharedDocs/Veroeffentlichungen/EN/Fachartikel/2019/fa_bj_1904_Tokenisierung_en.html).

## Classification initiatives: ITSA and TTC

The more commonplace tokens become, the more important standards become as well. A uniform and clear legal framework with corresponding terminology will help innovation. Not only will standards provide legal clarity, it will also help prevent flaws in the code and therefore reduce risk. There are several standardization efforts.

### International Token Standardization Association (ITSA)

One of them is the International Token Standardization Association (ITSA), which provides identification numbers but which also categorizes and classifies different tokens. It is important for both lawmakers and the business to adopt one of these efforts as soon as possible and begin a uniform way of classifying tokens. Once again, harmonization at European level is required. ITSA is promoting the development and implementation of a standardized approach for the identification, classification and analysis of tokens.

- With regard to identification, ITSA proposes an International Token Identification Number (ITIN). It is an open market standard for the safe and secure identification of tokens.
- The International Token Classification (ITC) is a framework for all kinds of tokens according to various different dimensions (economic, technological, legal, etc.)

ITSA is a member-based organization that includes the Frankfurt School Blockchain Center, Boerse Stuttgart, SolarisBank and many others.

### Interwork Alliance

A similar initiative has been undertaken by the Interwork Alliance. Their efforts concern:

- Establishing a common set of terms and conditions for use by business and technical participants;
- Creating a Token Classification Hierarchy (TCH) that is simple to understand, organize and navigate;
- Decomposing tokens into parts to power a framework for mixing and matching, driving reuse and innovation.

Consortium members include Accenture, Microsoft, SDX and many others.

### International Organization for Standardization

In addition to these new organizations, ISO, the International Organization for Standardization is also developing standards for blockchain and crypto-asset related activities.

- ISO TC307 is an initiative focused on Blockchain and distributed ledger technologies. The initiative consists of working groups and study groups concerned with terminology, reference architecture, taxonomy, use cases and other matters.
- ISO 24165 is a standard for a digital token identifier. It concerns the registration and identification of digital tokens.
- Note that these standards are in development and not yet finalized or ready to be used.

## ● ● Facilitate and promote the use of tokenization in the Netherlands

### **Take a leading position with a Dutch strategy on tokenization**

The Dutch government has recently voiced its ambition to become a leading fintech hub within Europe as part of its Fintech Action plan.<sup>17</sup> The Dutch banks support this ambition and want to contribute to the building of this leading position in digital finance. To claim such a guiding role within the European crypto space, the Netherlands should create a strategy on tokenization which includes a clear vision and roadmap on crypto-assets and tokenization as part of its broader fintech strategy.

In our opinion a Dutch strategy regarding tokenization would consist of the following building blocks:

- Increased collaboration between regulators, policymakers and market participants;
- An improved Regulatory Sandbox;
- Adoption of best practices;
- Lower barriers for banks to provide custodian and VASP services.

### **Increased collaboration between regulators, policymakers and market participants**

In a number of countries, regulators have started to encourage the marketplace to think about how the use of crypto-assets fits into existing rules and regulations or requires new frameworks. While some recent initiatives aim to facilitate this debate – like the 2Tokens project – so far there has not been a structural knowledge exchange with all relevant actors in the crypto-assets ecosystem in The Netherlands.

Increased collaboration and knowledge exchange would not only enhance a deeper and common understanding of crypto developments, but also would create more clarity for market participants, e.g. by providing guidance about the application of the existing regulatory framework.

This should also bring more alignment between regulators in their interpretation of the applicability of the regulatory framework. A Cambridge-led study across 23 jurisdictions, found 'there are three distinct national bodies per jurisdiction that have issued official statements about crypto-assets, including warnings'.

While we do not promote the establishment of a 'single' central supervisory authority, we do recommend a lead supervisor that coordinates national crypto-assets regulation. This would be of great value for industry guidance covering the full crypto-assets space with all its forthcoming risks. Germany, France and Switzerland, for example, have demonstrated such clarity for the market.

.....  
<sup>17</sup> <https://www.rijksoverheid.nl/documenten/kamerstukken/2020/07/03/aanbiedingsbrief-fintech-actieplan>.

## Switzerland: Home to Crypto Valley

Switzerland is well-known for being one of the most crypto-friendly countries in Europe. As noted in the report 'Blockchain in Switzerland' by the Embassy of the Kingdom of the Netherlands (2018) in Bern: "Switzerland has a transparent legal system, economic stability, an innovative focus, a good education system, risk capital, tax incentives, a well-functioning digital infrastructure and advanced data security." It is noted that Switzerland is an attractive country for blockchain because:

- There is a high blockchain knowledge level, including regulators and supervisors;
- Zug (Crypto Valley) is home to many international blockchain projects from all over the world;
- Guidelines for Initial Coin Offerings Possibilities for start-ups to experiment in a 'regulatory sandbox';
- The cantons offer excellent services to their citizens and the business area.

In Switzerland, FINMA issued guidelines for ICOs in February 2018. The guidelines set out how it intends to apply financial market legislation in handling enquiries from ICO organisers. These guidelines were supplemented in September 2019 to include an outline of how it treats stable coins under Swiss supervisory law. On 29 January 2020, OverFuture, a Swiss blockchain company, received final approval from regulators to list its articles of incorporation on a public blockchain.

In addition to new companies which operate in the extensive blockchain community in Switzerland, traditional companies are also preparing themselves for a new digital way to distribute assets. One example is the aforementioned SIX Digital Exchange from the Swiss Exchange SIX.

## An improved regulatory sandbox

The regulatory sandbox of AFM and DNB, 'Maatwerk voor Innovatie', can play an important role in facilitating the open dialogue that is required to foster innovation in the area of crypto-assets and cryptocurrencies. As mentioned above, an active collaboration is beneficial for supervisors, financial institutions and market participants. Banks can contribute knowledge with regard to relevant use cases. Also, we can address market needs that we see appearing nowadays. A controlled environment where we can experiment will then deliver findings and results as input for policy makers.

However, this requires a more flexible and inclusive sandbox because organisations have encountered difficulties becoming part of the sandbox. Market participants and financial institutions need to contribute clear, real-world examples that demonstrate the benefits of tokenization. Any learnings coming from this close collaboration should then be shared across the ecosystem so that the ecosystem learns as a whole and the Netherlands is in the right position to embrace this new innovation.

To achieve this, DNB and AFM should open up their sandbox to facilitate innovative token solutions. If the Netherlands develops a flexible and inclusive sandbox, it can become an important differentiator in the token ecosystem.

### **A European Digital Laboratory**

As best practices from abroad show, working towards legal certainty can best be approached in collaboration with all the necessary parties in the ecosystem; supervisors, financial institutions and market participants.

The French financial supervisor, AMF, therefore proposes to create a digital laboratory at European level. Within the digital laboratory, unnecessary obstacles with regard to clearing, settlement and custody can be removed in a controlled environment to identify regulatory gaps, including allowing the national competent authorities to remove, in return for appropriate guaranties, certain requirements imposed by European regulations and identified as incompatible with the blockchain environment, provided that the entity benefiting from this exemption respects the key principles of the regulations and that it is subject to increased surveillance from the national competent authority of the reference Member state.

We encourage the Dutch supervisors to support the proposal of the AMF regarding the creation of a digital laboratory at European level.

### **Adoption of best practices**

A European legal framework would create the best pre-conditions for the development of tokenization in the medium term. At the same time, we see many examples of national initiatives that drive the adoption of tokenisation at a national level. A majority of these initiatives are aimed at providing legal clarity about how the regulatory perimeter is applicable to tokens, such as MiFID II. The Netherlands could adopt these best practices while building on the lessons learned from other European member states.

We suggest setting up experiments with all Dutch stakeholders – including legislators and supervisors – to validate European best practices, with the aim of assessing feasibility within the Dutch regulatory framework and to be implemented when deemed suitable. Such a mapping exercise will provide a deeper understanding of how other countries create a favourable environment for crypto-assets. Obviously, this would require strong cooperation and an open dialogue between banks, companies and the regulators.

## Germany: new draft security legislation

On 11 August 2020, Germany's Federal Ministry of Finance (BMF) and the Federal Ministry of Justice and Consumer Protection (BMJV) introduced a draft bill concerning digital securities that includes blockchain-based digital securities.

In the official statement, the authorities state that the adoption of digital securities is one of the core aspects of the federal government's blockchain strategy. According to current legislation in Germany, financial instruments that are classified as securities must be secured in a paper document. Blockchain technology would help guarantee liquidity and compliance by providing a replacement for the paper certificate, the BMF and BMJV said.

Among the main legislative features are:

- Securities being detached from the paper-based certificate, which creates the basis for the digital capital market of the future;
- Allowing competition with regard to the central securities depository function;
- Issuers – including industrial corporations – can keep the register for their own securities;
- Securities to be issued on decentralized blockchain systems.

The official statement also states that the proposed draft bill will improve regulatory clarity, stipulating that the Federal Financial Supervisory Authority, BaFin, will be responsible for monitoring the issuance of digitized securities and the maintenance of decentralized ledgers in accordance with the German Banking Act.

## France: ICO capital Paris

Over the past few years, France has been at the forefront of the blockchain revolution in the European Union. In March 2018, Bruno Le Maire, the French Minister of Finance, declared that he wanted Paris to become the capital of ICOs.

In September 2018, the Minister announced that the legal ICO framework had been accepted. An article of the Business Growth and Transformation bill (PACTE) dedicated to ICOs allows the French authority, the Autorité des marchés financiers (AMF), to approve and issue permits to companies wanting to use ICOs as a method of raising capital.

On 19 December 2019, AMF granted its first 'ICO Visa' under the PACTE act. Under this act, extended guidance and oversight about ICOs is provided and government approval prior to launch is required.

In March 2020, AMF in France published a review and analysis of the application of financial regulations to security tokens. Two important conclusions coming from the report are:

- The Prospectus Regulation appears compatible with Security Token Offerings, but the information contained in the prospectus will have to be adapted to the specific features of security tokens;
- The exchange of security tokens faces major legal obstacles because of the decentralized nature of blockchain technology.

## Lower barriers for banks to provide custody and VASP services

Dutch banks – together with reputable partners – would be well placed to provide custodian and VASP services for their clients but have been reluctant and discouraged in launching such activities. Some early-stage initiatives have been discontinued after the regulatory sandbox phase.

There are however good arguments about why the current role of banks should be re-assessed:

- Crypto-assets as an asset class are here to stay, so rather embrace and regulate than renounce. In fact, banks should serve as a valuable gatekeeper complementing regulated crypto companies and perhaps can align with them in the future.
- Controlled involvement of banks in crypto services enables them to build up expertise, assess the risks involved and find methods to mitigate these risks (risk-based vs 'blanket-with-hole-in-it' approach).

- **Banks could provide risk mitigation for customers**, such as use of a familiar banking environment, security and no loss of private keys, prevention of fraudulent transfers / theft of crypto-assets, education risk/returns, over-investment and duty-of-care, next-of-kin services, pre-selection of available cryptocurrencies (both primary and secondary market), fiscal treatment of virtual currencies ('renseignering') among others.
- Activities of Dutch providers would remain in the scope of Dutch regulators rather than investors making use of foreign providers, some outside of the EU and often completely unregulated.

### Germany: broadening of crypto custody services

In Germany, the new AMLD5 implementation introduced, among other things, changes to the German Anti-Money Laundering Act and to the German Banking Act. It is permitted for banks to offer crypto custody services after obtaining a license from BaFin.

### United States: crypto custody services as modern form of traditional bank activities

On 22 July 2020, the Office of the Comptroller of the Currency (OCC) published an interpretative letter<sup>19</sup> in which the role of national banks in providing custody services is clarified.

The OCC "conclude(s) a national bank may provide these cryptocurrency custody services on behalf of customers, including by holding the unique cryptographic keys associated with cryptocurrency. This letter also reaffirms the OCC's position that national banks may provide permissible banking services to any lawful business they choose, including cryptocurrency businesses, so long as they effectively manage the risks and comply with applicable law".

"National banks have long provided safekeeping and custody services for a wide variety of customer assets, including both physical objects and electronic assets. These functions of national banks are well established and extensively recognized as permissible activities for national banks. The OCC concludes, [...], that providing cryptocurrency custody services, including holding the unique cryptographic keys associated with cryptocurrency, is a modern form of these traditional bank activities."

19 <https://www.occ.gov/news-issuances/news-releases/2020/nr-occ-2020-98.html>.



© October 2020  
Dutch Banking Association  
Gustav Mahlerplein 29-35  
1082 MS Amsterdam  
The Netherlands  
00 31 20 550 28 88  
[www.nvb.nl](http://www.nvb.nl)