

# Digital assets, digital currencies

The best part of the past decade has been taken up by daily debates about the development of cashless economies, in which payments using physical money are largely sidelined by various types of electronic transfers. For reasons of convenience, these dematerialised transactions have slowly but surely become the dominant modes of payment, and it seems paper money will be supplanted as a means of exchange within the next decade. What, then, does the future hold in store?

### 1. The shape of money

Throughout its history, the form and shape of money have constantly shifted in response to the social and economic changes human civilisation has undergone. What economists nearly unanimously agree on is that, regardless of its shape, money has always been the primary means of exchange, unit of account, and store of wealth.

Apart from these traits, it would appear that money has always also been a physical asset. From readymade natural objects (such as rocks or shells), to coins minted from a variety of alloys, mainly of precious metals, to paper banknotes issued by central banks, money has always been physically tangible. For centuries, money also had one other trait that was always been dominant, with minor exceptions: it was always issued by a government.

The creation and development of a 'cryptocurrency' was seriously considered for the first time in 'Bitcoin: A Peer-to-Peer Electronic Cash System'<sup>1</sup>, a paper that appeared on 31 October 2008 under the by-line of one Satoshi Nakamoto. Bitcoin, the first and still the most widely spread cryptocurrency, emerged in 2009, following on from the ideas set out in the article. It soon became clear that money would also share this digital future.

What did remain open to question at the time, however, was the role of governments and central banks in issuing and overseeing cryptocurrencies and electronic money (or e-money).

### 2. The future of payments is cashless

Payment cards have for decades been a transitional solution from traditional, physical money to digital currency. These cards allow their holders to make cashless payments, but the value contained in each card is ultimately always based on physical money deposited in an account linked to it. Apart from standard payment cards, the payment services industry has also developed digital cards and a wide variety of app-based solutions that facilitate payments, with many transactions today made using mobile phones and similar smart devices. According to Implications of digitalisation in retail payments for the Eurosystem's catalyst role<sup>2</sup>, a July 2019 report by the European Central Bank (ECB), more than 200 various electronic payment solutions had been developed to date, with more than one-third coming from start-ups. Individuals and businesses are additionally incentivised to switch to these modes of payment as the majority of the platforms are harnessing business models successfully popularised by social networks whereby they provide free-of-charge services in exchange for access to users' personal data.

With payment cards now established as the mainstream cashless payment instrument, more recent payment solutions include cryptocurrencies, 'stablecoins', and electronic money.

<sup>2</sup>https://www.ecb.europa.eu/pub/pdf/other/ecb.implicationsdigitalisationretailpayments201907~d0a6f7abca. en.pdf



<sup>&</sup>lt;sup>1</sup> http://www.bitcoin.org/bitcoin.pdf

Different authorities provide varying definitions of cryptocurrencies<sup>1</sup>. One of the most comprehensive interpretations is that cryptocurrencies are virtual digital representations of value, not issued by a central bank, credit institution, or e-money institution, which in some circumstances can be used as an alternative to money. In addition to Bitcoin (BTC), other well-known cryptocurrencies include Ethereum (ETH), Ripple (XRP), Litecoin (LTC), Stellar (XLM), Cardano (ADA), IOTA (MIOTA), NEO (NEO), Monero (XMR), and others. Cryptocurrencies are neither defined nor recognised as such by the Serbian legal system, but may be deemed to be included in the definitions of digital assets and virtual currencies provided by the Law on Digital Assets<sup>2</sup> (*Official Gazette of the Republic of Serbia*, No. 153/2020).

Aware of the shortcomings of both cryptocurrencies and payment cards, many fintech companies have begun developing stablecoins<sup>3</sup>, digital units of value that differ from existing currencies primarily in that they rely on a set of stabilisation tools to minimise fluctuations in their prices against traditional currencies. These stabilisation tools are usually pools of assets, ranging from issuers' cash deposits to traditional liquid collateral (such as securities or hard collateral), that are intended to promote confidence and guarantee stability for users. The stabilisation tools serve to hedge against the risk of fluctuations in the stablecoin's value, but this risk is not entirely avoided, since there can also be considerable variations in the value of the underlying assets that ought to guarantee stability. Stablecoins can also be stabilised by algorithms that control supply and demand (similarly, for instance, to how a central bank intervenes in the foreign exchange market) and so adjust for fluctuations in the value of the stablecoin. Another difference between stablecoins and cryptocurrencies is that stablecoins have clearly designated issuers that are known and that administer the entire system of their stablecoin, either independently or through external vendors. Stablecoins are neither defined nor recognised as such by the Serbian legal system, but may be deemed to be included in the definitions of digital assets and virtual currencies provided by the Law on Digital Assets<sup>4</sup> (Official Gazette of the Republic of Serbia, No. 153/2020).

Electronic money<sup>5</sup> is defined as electronically, including magnetically, stored monetary value that legally represents a claim on the issuer which is issued on receipt of funds for the purpose of making payment transactions and which is accepted by a natural or legal person other than the electronic money issuer. Electronic money is recognised in the Serbian Law on Payment Services<sup>6</sup> (*Official Gazette of the Republic of Serbia*, Nos. 139/2014 and 44/2018), where the definition is transposed in full from Directive 2009/110/EC of the European Parliament and of the Council. E-money is yet to gain a major foothold in the Serbian cashless payments market, even though its issuance and use have been allowed by statute ever since 2014. Only two Serbian companies are currently licensed to issue e-money.

The latest available ECB data<sup>2</sup> (December 2020) show 24 percent of all retail payments are cashless.

The widespread belief that the future of payments will be cashless is borne out by the findings of the 2020 edition of the highly regarded European Payment Report<sup>®</sup>, prepared annually by Intrum, which suggest that as many as 80 percent of respondents in its Europe-wide survey expect their country will be cashless within the next five years.

<sup>3</sup> https://www.ecb.europa.eu/pub/pdf/scpops/ecb.op247~fe3df92991.en.pdf

<sup>&</sup>lt;sup>8</sup> https://www.intrum.com/media/8918/european-payment-report-2020 final.pdf



<sup>&</sup>lt;sup>1</sup><u>https://www.europarl.europa.eu/cmsdata/150761/TAX3%20Study%20on%20cryptocurrencies%20and%20bl</u> ockchain.pdf

<sup>&</sup>lt;sup>2</sup> <u>https://www.nbs.rs/export/sites/NBS\_site/documents-eng/propisi/zakoni/digitalna\_imovina\_e.pdf</u>

<sup>&</sup>lt;sup>4</sup> <u>https://www.nbs.rs/export/sites/NBS\_site/documents-eng/propisi/zakoni/digitalna\_imovina\_e.pdf</u>

<sup>&</sup>lt;sup>5</sup> <u>https://www.ecb.europa.eu/pub/pdf/scpops/ecb.op247~fe3df92991.en.pdf</u>

<sup>&</sup>lt;sup>6</sup> https://nbs.rs/export/sites/NBS\_site/documents-eng/propisi/zakoni/law\_payment\_services.pdf

<sup>&</sup>lt;sup>7</sup> https://www.ecb.europa.eu/pub/pdf/scpops/ecb.op247~fe3df92991.en.pdf

Clearly, trends revealed by research give substance to what is already perceived as certainty: digitalisation will completely marginalise paper money.

#### 3. Cryptocurrencies and stablecoins are set to become recognised as digital assets

Since 2009, Bitcoin and the myriad other cryptocurrencies that may be thought of as its spinoffs have failed to achieve their initial goal of superseding mainstream currencies by assuming two functions of traditional money, namely serving as the primary means of exchange and unit of account.

Instead, cryptocurrencies seem to have attracted the attention of a broad spectrum of noninstitutional investors and have largely taken on the third traditional function of money, that of store of value. After 2009, Bitcoin has become a financial derivative of sorts in an unregulated market, discussed much more for the rise or fall in its price rather than as a new currency useful for daily payments. The impact of the last global economic downturn, stock market declines, increasing mistrust of institutional investment frameworks, and the worldwide fall of interest rates on deposits, have all made Bitcoin and other cryptocurrencies interesting investment opportunities rather than means of payment that aspire to supplant traditional money. In view of Bitcoin's latest price history, in particular its recent rise above the US\$60,000 threshold<sup>1</sup>, analysts are predicting it will overtake money and become the equal of gold as a store of value. These views are supported by the meteoric rise of Bitcoin since early 2021: it has grown by 1,000 percent over the past year, whilst gold prices have been declining gradually for months. Nevertheless, it may seem somewhat utopian to expect such an outcome, as Bitcoin is not a stablecoin – in other words, its value is not backed by any underlying stabilising assets or tools, but rather moves freely based on market demand. Another proof of just how attractive digital currencies are for potential issuers is the fact that Facebook, the largest of the tech giants, has announced its intention to develop its own stablecoin, Diem (initially known as Libra), which it expects to become a sort of global currency, given the social network's active user base numbering in excess of 2.7 billion people.

Following these developments, legislators in countries aiming to be recognised as 'fintech nations' have begun to recognise and regulate cryptocurrencies and similar virtual assets as digital assets, new forms of intangible property, instead of acknowledging cryptocurrencies as traditional money.

Examples of this approach in the European Union (EU) include France and Malta.

In 2018, Malta enacted a systemic law governing digital assets, the Virtual Financial Assets Act. This piece of legislation brought in requirements for persons intending to pursue an Initial Coin Offering (ICO) to introduce a new digital currency, as well as for other service providers, including brokerages and dealerships, portfolio managers, investment advisors, and digital asset exchanges.

In France, the Action Plan for Business Growth and Transformation Law (*Plan d'Action pour la Croissance et la Transformation des Entreprises*, PACTE) envisages 'optional licences' for ICO issuers, which meet some investor protection standards. The PACTE Law requires ICO issuers to be legal persons incorporated or registered in France. The legislation also allows the introduction of arrangements for overseeing and safeguarding assets raised in an ICO, as well as buyer identification, an important consideration for anti-money laundering (AML) and competition rules. The PACTE also sets out a list of services considered to be 'digital asset services'. Within the meaning of the law, service providers include stock exchanges and brokerages and dealerships. To become licensed, service providers must hold professional liability insurance, meet capital requirements, have appropriate security and internal control systems in place, and operate secure IT systems.

<sup>1</sup>https://www.biznisipravo.rs/novi-rekord-bitkoina/

The EU itself has also recognised the importance of regulating virtual assets. In September 2020, the European Commission (EC) announced a plan to regulate digital assets at the EU level through a proposed Regulation on Markets in Crypto Assets<sup>1</sup> (MiCA), which aims to foster innovation whilst safeguarding financial stability and mitigating risk for investors. The purpose of this regulation is to develop arrangements that ought to ensure legal certainty for issuers and buyers of virtual assets, as well as to accelerate and align the creation of national rules in this area. The intention is to allow legal persons based in one EU Member State that offer crypto-assets to the public to do so in other Member States as well. Prudential safeguards include the maintenance of permanent minimum capital and own funds, obligations for crypto-service providers to act in the interests of their investors, and legal recourse investors can use to protect their rights. The EC has also proposed the establishment of a pilot regime to test the digital asset market and permit regulatory experimentation that could allow both the regulator and the stakeholders to learn more about processes in this wholly new industry.

In December 2020, the Serbian Parliament enacted the Law on Digital Assets, which was published in the *Official Gazette of the Republic of Serbia* No. 153/2020, making Serbia one of the few countries to have regulated virtual assets by statute. According to the law, digital assets include crypto-assets and virtual assets, which are defined as 'a digital representation of value that can be digitally bought, sold, exchanged or transferred and used as a means of exchange or for investment purposes'. By contrast, virtual currency is defined as 'a type of digital asset that is not issued or guaranteed by a central bank or public authority, that is not necessarily attached to a legal tender and that does not have the legal status of money or a currency, but that is accepted by natural or legal persons as a means of exchange and that can be bought, sold, exchanged, transferred, and stored electronically'. Apart from these key concepts, the Law on Digital Assets regulates a wide variety of other issues by drawing on both Maltese and French legislation and on other proposals currently being put forward by supra-national regulators of the EU.

As such, and in view of the approaches taken by these initial regulatory arrangements in the field, cryptocurrencies and stablecoins seem more likely to become types of digital assets than standard currencies. Governments now face the huge challenge of developing public digital currencies that will actually assume the roles of digital money that cryptocurrencies and stablecoins have been aiming for.

## 4. Will traditional currencies go digital so monetary monopolies can be maintained?

It has become quite clear that innovations coming from the private sector are strong competitors to national currencies, as well as that all stakeholders expect economies to go cashless. What remains uncertain is the reaction of central banks and governments to this competitive pressure: will they opt to digitalise national currencies, or will they let non-public digital currencies become preeminent whilst exercising some degree of control? Also, it is highly unclear to what extent national governments will keep pace with the increasing digitalisation and disappearance of political boundaries across economies. Governments that fail to streamline their FX transactions rules will surely see businesses migrate to digital currencies and assets they can freely use to make transactions globally, sidestepping rigid and antiquated FX regulations. This will render useless nation-states' mechanisms for tackling credit and liquidity risk, threats to freedom of competition, tax evasion, and money laundering. Finally, a large-scale transition to digital currencies or assets may lead to a large portion of a country's payments system becoming managed and controlled externally by private companies operating outside the bounds of national jurisdictions.

<sup>&</sup>lt;sup>1</sup> <u>https://eur-lex.europa.eu/resource.html?uri=cellar:f69f89bb-fe54-11ea-b44f-01aa75ed71a1.0001.02/DOC 1&format=PDF</u>



This will also be a major challenge for Serbia, given the outdated nature of its foreign exchange operations rules and their inflexible and invasive implementation in practice.

One early answer to currency digitalisation has come from the EU. Apart from the ECB, the central banks of other countries, such as Sweden and China, are also developing digital versions of their currencies.

The EU has acknowledged the competition between traditional money, on the one hand, and cryptocurrencies and stablecoins, on the other, and has assumed a preliminary position that calls for increasing the competitiveness of the euro in the face of its digital rivals. The idea is to do so by greatly facilitating retail payments (particularly cross-border ones) and by issuing digital euros, a digital currency that would complement the EU's existing conventional paper money.

In October 2020, the ECB published its Report on a digital euro<sup>1</sup>, set up a working party, and launched public consultations on the need to introduce a digital currency for the EU.

According to the design requirements set out in this report, the EU intends to issue a digital currency to enhance the competitiveness of the public currency and mitigate the hazards inherent in unregulated and highly risky digital currencies. A digital euro ought to make retail payments easier whilst avoiding the risk of its ending up as a type of financial derivative, as has happened to cryptocurrencies.

One particularly interesting question raised by the report involves the design and technical management of the system, the underlying infrastructure and its interface with end users. The dilemma here is whether to centralise the system and make sure it is managed by public authorities, create peer-to-peer infrastructure that would devolve some of the system's functioning directly to end-users, or seek a mix of these two approaches. It also remains unclear whether responsibility for technical management, if it remains vested with the authorities, can be transferred to private vendors, and under what conditions, or whether it would have to stay the exclusive remit of public institutions. This latter question is particularly interesting from the perspective of clearing payments made using digital euros.

The public consultation, followed by a brief experimental stage, ended on 16 January 2021, and the ECB will in all likelihood decide in April whether to continue preparations to issue a digital euro, after producing a report that will aggregate all information collected during the research. The ECB will then settle on whether to launch a pilot project designed to test the digital euro's sustainability.

These developments seem to show that a digital euro is more a matter of 'when' rather than 'if'.

#### 5. The future of traditional currencies

The success and popularity of cryptocurrencies, stablecoins, e-money, and payment cards, and the volume of transactions they are used in, are clear signs for regulators that the market for payment services and the concept of traditional money must change.

Non-public currencies are fraught with many risks that can directly threaten monetary sovereignty, financial stability and integrity of national and supranational markets, freedom of competition, and technological independence, as well as data privacy.

All of these considerations suggest that national and supranational authorities tasked with regulating, issuing, and overseeing traditional money will not fail to use this opportunity and the ready-made knowledge originating in the private sector to develop digital currencies that will be far less risky than their private-sector competitors and that will, like public resources, be unconditionally available to the

<sup>&</sup>lt;sup>1</sup> <u>https://www.ecb.europa.eu/euro/html/digitaleuro-report.en.html</u>



broadest range of stakeholders. The pace of this transformation (the same as with the general transition to Industry 4.0) will determine the fate of countries and their supranational groupings.

Lastly, it seems that traditional paper money will not disappear for at least several decades. It will remain in use for as long as there is a need to safeguard consumer privacy – or at least until digital currencies become able to give their users the benefit of anonymity.



