

Financial and Tax Regulation for the Digital Era: Charting the Path Forward

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'The interplay between tax and financial regulation in a new digital environment'

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Good morning, ladies and gentlemen. I would like to welcome you all to Banca d'Italia and thank the Global Tax Policy Center at the Institute for Austrian and International Tax Law of Vienna University for jointly organizing this conference to discuss the vital link between financial regulation and taxation in the new digital world.¹

I will focus on three key challenges faced by financial regulators and tax policymakers, highlighting potential synergies, open issues and possible solutions.² These are, first, the definition of general principles that financial regulation and taxation should follow to achieve their goals in dealing with the new digital environment. Second, the delineation of the scope of financial regulation and tax policies, with emphasis on their coherence and consistency in order to ensure they are clearly understood by market operators, investors and customers, and can be effectively enforced. Third, the need for international cooperation and cross-sectoral coordination to leverage potential synergies and to avoid regulatory and tax arbitrage as well as other unintended consequences and unnecessary complexity.

I will argue that we need an innovative and proactive approach that is able to intercept and pivot technological and market developments as they occur, while addressing

The link between regulation and taxation in addressing market inefficiencies is well known in public economic theory – see, among others, A.H. Barnett, B. Yandle, 'Regulation by Taxation', in J.G. Backhaus, R.E. Wagner (eds.), *Handbook of Public Finance*, Springer, Boston, MA, 2005. Regulation and taxation have always played a significant role in the smooth functioning and evolution of the financial and payment industries, and have often been used in parallel to address market inefficiencies or to create incentives aimed at pursuing relevant policy objectives, such as the growth of specific markets or sectors, particularly in their initial stage of development. On the possible role of taxation within the more general regulatory framework for digital assets, see R. Avi-Yonah, M. Salaimi, 'A New Framework for Taxing Cryptocurrencies', *Tax Lawyer*, 77, 1, 2003; Financial Stability Board (FSB), *IMF-FSB Synthesis Paper: Policies for Crypto-Assets*, 7 September 2023; Banca d'Italia, 'Decentralized Technology in Finance and Crypto-assets', Communication of June 2022.

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the unique challenges and risks of digital payments and financial services.³ This will help regulators develop forward-looking supervisory measures that balance financial stability with innovation and efficiency, while enhancing the effective management of money laundering risks and the proper fulfilment of tax obligations. In doing so, rulemaking should seek to be simple and plain.

Two main factors make this a daunting task. First, the technological complexity of the digital environment requires regulators and tax authorities to develop new expertise. Second, the real-time nature and composability of the new digital landscape pose unprecedented legal and operational challenges. This is especially true for decentralized finance (DeFi), where different technological layers – including smart contracts, protocols, interfaces and crypto-assets⁴ – are combined to create new products and services, potentially bypassing traditional financial intermediaries as well as new service providers.

1. Regulation and taxation: common principles and sector-specific goals

The first challenge is to identify the common principles shared by regulation and taxation and how these combine with their sector-specific goals. *Consistency* and *coherence* between taxation and regulation are necessary to achieve effectiveness and encourage innovation. A robust regulatory framework for digital assets can be ineffective if the tax framework is ambiguous, making rules on paper useless in practice. Similarly, fair and neutral taxation of digital assets will not be able to support the safe and sound growth of the industry if the regulatory approach is unclear, inconsistent or overly restrictive. Complementarity and mutual reinforcement become particularly important as regulators and tax policymakers face the complexity of the new digital environment.

Other common principles for regulation and taxation include *certainty and clarity* – knowing exactly what the rules are, what is expected of them, and what consequences might arise if they are not followed; *time consistency* – policies should remain stable over time to allow businesses to make long-term decisions and investments, while being flexible enough to adapt to continued innovation; *simplicity* – rules should be easy to understand and apply. Introducing new rules for digital assets could offer regulators a chance to rethink and simplify existing rules for traditional assets too. Finally, regulation and taxation should respect *technological neutrality* – in principle, rules should not

³ C. Scotti, 'Journey to the future of the financial system', speech at the 31st ASSIOM FOREX Congress, 2025.

Crypto-assets are digital representations of values or of rights that can be transferred and stored electronically using distributed ledger technology (DLT) or similar technology. See FSB, *High-level Recommendations for the Regulation, Supervision and Oversight of Crypto-Asset Activities and Markets,* 17 July 2023; Regulation (EU) 2023/1114 of the European Parliament and of the Council on markets in crypto-assets (MiCAR).

⁵ FSB, IMF-FSB Synthesis Paper: Policies for Crypto-Assets, 2023.

In some instances, taxation might play an active role, complementing regulation in orienting market developments and choices. For instance, tax rules could align with the different regulatory treatment of specific types of digital assets, depending on their risk profile and/or the environmental impact of the underlying technology. See K. Baer, R. De Mooij, S. Hebous, M. Keen, 'Taxing Cryptocurrencies', IMF Working Paper, June 2023.

necessarily favour one technology over another.⁷ Since digital assets have unique features that make traditional approaches harder to apply, they create challenges for regulators and tax authorities. Technological neutrality should not be understood as an abstract concept: legal rules need to be adapted to innovation.⁸

Sector-specific goals for financial regulation traditionally include consumer and investor protection, market integrity, financial stability, the smooth operation of payment systems, and the prevention of money laundering and terrorist financing. These goals also apply to digital services, products and the resulting business models. However, 'traditional vulnerabilities' may be exacerbated in the digital context – operational risks, cyber and data security could become bigger challenges – and increased complexities might require new supervisory approaches – for example, SupTech⁹ – as well as a continued dialogue with market participants and innovators to intercept changes in a timely manner and build effective and cutting-edge solutions.¹⁰

Sector-specific objectives for taxation hinge on defining clear rules to ensure that income from digital assets is taxed fairly and that potential opportunities for tax evasion are curbed. Fairness in taxation implies that values deriving from digital assets should be included in tax bases following the 'ability-to-pay' principle.¹¹ Fighting tax evasion can be particularly challenging. The anonymity, a-territoriality and decentralized nature of some crypto-assets, which may allow individuals and businesses to hide transactions, create opportunities to evade taxation, much like cash payments do.¹² Digital assets and services can also make tax enforcement difficult. Traditional tax reporting and enforcement models that rely on 'third parties' to track income do not work well in the digital world. Digital services are not always provided by traditional financial institutions: some actors are hard to identify, especially if they are located in other countries. And even if they can be identified, transaction data can be spread across different sources due to decentralization and peer-to-peer transactions.

The principle of technological neutrality should not be confused with the concept of neutrality that is typical of tax systems. The former means that regulation should be applied uniformly to different technologies, avoiding distortions that could stifle or indiscriminately promote innovation. The latter means that the tax system is neutral when it does not distort taxpayers' behaviour and decisions.

For instance, currently in most countries the application of withholding taxes on earnings from traditional financial instruments relies on financial intermediaries acting as 'tax agents'. Conversely, in the case of tokenized financial instruments, the possibility to bypass financial intermediaries and hold the assets directly makes it necessary to identify new tailored ways to apply taxes.

Supervisory technology or SupTech is the use of innovative technology to support supervisory processes.

The need for a continued dialogue with innovators to build effective and efficient supervisory tools has been highlighted, among others, by C. Skingsley, 'Working together to ensure financial integrity', speech at the BIS Innovation Hub's 2025 Analytics Showcase, London, 27 March 2025.

The 'ability-to-pay' principle states that individuals should contribute to public expenses through taxes applied on bases that can be regarded as indicators of their well-being, economic power or capacity, such as income, wealth, expenses. It is strictly related to other principles, in particular those of solidarity and equality, of which the ability to pay is both an application and a development in the field of taxation.

This can be the case of unbacked crypto-assets, which represent by far the largest share of the market, are often held for speculative purposes and, in some instances, are more prone to be used for illicit activities.

To achieve their goals in the digital financial and payment landscape, regulators and tax policymakers across different jurisdictions have taken a variety of approaches.

The European Union has made significant strides in regulating digital finance, launching the Digital Finance Strategy in 2020.¹³ Key initiatives encompass the regulation on markets in crypto-assets (MiCAR) and the DLT pilot regime for tokenized financial instruments.¹⁴ The overarching aim is to enable the development of digital assets and services while ensuring a high level of consumer protection, transparency, market integrity and financial stability. To this end, MiCAR includes an ad hoc regime for so-called stablecoins¹⁵ designed to tackle specific risks, for instance, those stemming from the underlying technology, as well as 'traditional' risks materializing in the new digital space. Regarding the latter, MiCAR establishes safeguards to ensure the safe and sound management of the reserves of underlying assets, as well as prevent 'run risks' in case issuers are unable to meet redemption requests by token holders.

Despite progress, there are still unresolved issues. For instance, MiCAR's entity-based approach does not cover the entire DeFi ecosystem, where services are provided through decentralized applications running on permissionless networks and using smart contracts, with minimal or no intermediary involvement. On a broader scale, complications also arise because, in a completely disintermediated environment, the relationships between private parties are governed by algorithms, potentially eroding the role of laws and contracts. This could lead to the emergence of new governance and risk management issues. Additionally, the lines between the financial and payment sector and other industries tend to be blurred in the digital space. EU regulatory institutions are currently analysing these issues. It will be necessary to promote dialogue between authorities and the market, even beyond the bounds of supervised operators, to intercept in advance

Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions on a Digital Finance Strategy for the EU (COM(2020) 591). Alongside this, the Commission adopted the Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions on a the Retail Payments Strategy for the EU which aims to enhance Europe's payment market (COM(2020) 592); this includes the promotion of instant payments, which later led to the adoption in March 2024 of the Instant Payments Regulation (IPR).

Regulation (EU) 2022/858 of the European Parliament and of the Council on a pilot regime for market infrastructures based on DLT.

MiCAR regulates three categories of crypto-assets: (i) asset-referenced tokens (ARTs); (ii) e-money tokens (EMTs), both of which count as so-called stablecoins – crypto-assets that purport to maintain a stable value by referencing other assets, although they differ in terms of the referenced assets and the rights of the holders; and (iii) crypto-assets other than ARTs and EMTs, a residual category which encompasses crypto-assets that are different from ARTs and EMTs.

On the issues that are beyond the scope of MiCAR, see P. Cipollone, 'Conference on Digital Platforms and Global Law', keynote speech, Rome, 29 April 2022.

P. Cipollone, 'Risposte (e proposte) della Banca d'Italia alle sfide dell'evoluzione tecnologica', Rivista del Diritto Bancario, 2022.

the development trends of the digital financial industry and try to guide them in safe and efficient directions.¹⁸ I will also talk about this later.

On the other side of the Atlantic, the United States initially opted for enforcement actions for specific crypto-asset offerings and platforms¹⁹ and, more recently, openly promoted US leadership in digital assets and financial technology, including the future adoption of a federal regulatory framework for the issuance and operation of digital assets.²⁰ The change in the US regulatory environment is evident as Congress is considering legislative initiatives for stablecoins, including their use for payment.²¹

Regarding tax policy, several countries have adopted specific tax rules for crypto-assets or have provided comprehensive administrative guidelines that extend to them the tax rules for certain traditional assets. Tax reporting obligations have been imposed on crypto-asset services providers, often leveraging regulatory frameworks, in order to avoid crypto-asset transactions being used as a way to evade taxation. There are still issues arising from the decentralized and anonymous nature of digital assets to be addressed. The taxation of tokenized financial instruments also needs further development alongside regulatory frameworks.

2. Identifying the scope of regulation and taxation: potential synergies

The second major challenge for both financial regulation and taxation in the new digital world is the need to identify the scope of the rules, to ensure certainty, clarity and consistency, thereby contributing to their effectiveness and making them simpler to understand.

To this end, as in the traditional payment and financial sectors, regulation plays a crucial role in defining the scope of applicability for the relevant products, services, individuals and entities. While the 'same activity, same risk, same regulation' principle should remain central, rules should address the specific features of emerging technologies. The rule-making process should break down the various functions of each type of digital asset, assess the associated risks, and understand the related income streams.

See European Banking Authority and European Securities and Markets Authority, *Joint EBA-ESMA Report on the recent developments in crypto-assets (Article 142 of MiCAR)*, 16 January 2025, for an extensive analysis of DeFi and other activities not covered by MiCAR such as crypto lending and borrowing. With regard the DLT pilot regime implementation, see ESMA, Letter to EU institutions on DLT Pilot Regime Implementation, 3 April 2024; European Commission, Letter on the DLT Pilot Regime Implementation, 3 May 2024.

This is particularly the case with the US Securities and Exchange Commission (SEC). See the list of the crypto-assets and cyber enforcement actions kept by the SEC.

Strengthening American Leadership in Digital Financial Technology', US Presidential Executive Order issued on 23 January 2025.

See the Guiding and Establishing National Innovation for U.S. Stablecoins Act of 2025 a.k.a. 'GENIUS Act of 2025' and the Stablecoin Transparency and Accountability for a Better Ledger Economy Act of 2025, a.k.a. the 'STABLE Act of 2025'.

In this context, regulation may provide a valuable anchor for the definition of tax rules for digital assets. Some considerations may assist us in this task.

First, the civil law framework provides a baseline reference for the tax treatment of digital assets. Countries have adopted different approaches depending on their broader legal systems. For instance, crypto-assets have been defined in different ways across jurisdictions – as a form of property, intangible assets, financial instruments, foreign currencies, 'digital representations of value' or even commodities.²²

Second, identifying the functions, risks and income streams of digital assets and activities within the regulatory framework may help ensure, on the one hand, that digital and traditional assets with similar functions are treated the same way from a tax perspective.²³ On the other hand, it can pinpoint the unique features of digital assets and activities that need to be taken into account when establishing suitable tax rules.

Third, tax policymakers should be cautious about directly transposing regulatory concepts into tax provisions. Financial regulation is often based on principles and goals that do not immediately transfer to the tax system, which has its own logic and rules.²⁴

Last but not least, with regard to taxation, once its scope is defined, it will be necessary to assess whether the existing enforcement procedures are effective, or else to devise entirely new solutions. Regulatory efforts to identify new market participants and emerging business models may serve as a valuable reference for tax policymakers. Many jurisdictions have already included regulated and supervised crypto-asset service providers, such as exchange and trading platforms, within the scope of third-party 'tax agents'. Conversely, where digital transactions are fully decentralized,²⁵ it may prove very challenging to identify entities able to manage the tax obligations or act as 'tax reporting agents'; therefore, new enforcement systems need to be explored.

In light of these considerations, addressing the challenges of the digital era requires a proactive, future-proof approach, taking account of potential synergies between the different regulatory domains. Therefore, it is crucial to foster a constant dialogue with traditional and new market participants in order to intercept and pivot technological and market developments in financial and payment services within the digital landscape. This dialogue can be a valuable source of knowledge about the digital finance ecosystem to enable policymakers to chart the path forward towards a well-defined regulatory

As highlighted, among others, in OECD, *Taxing Virtual Currencies: An Overview of Tax Treatments and Emerging Tax Policy Issues*, OECD Publishing, Paris, 2020.

For instance, e-money tokens denominated in foreign currencies, mostly used for payment purposes, should receive the same tax treatment as fiat foreign currencies, whereas unbacked crypto-assets, which can be held for other reasons, including investment and speculative intent, should be the object of specific tax rules.

For instance, according to the 'substance over form' principle, some investment tokens that are seen as financial instruments from a financial regulation standpoint might be characterized differently for tax purposes.

Compared with the traditional account-based financial system, digital asset transactions carried out on public DLTs adhere to a different paradigm, allowing visibility of transaction amounts and holdings on the ledger, but not of identifiable owners.

scope and tailored and flexible rules. Along the same line, regulators, central banks and supervisory authorities can serve as catalysts for innovation and actively contribute to the development of new ideas, enhancing the efficiency and security of financial and payment services. They are also innovation drivers themselves, notably when exploring the potential of central bank digital currencies (CBDCs).²⁶

Banca d'Italia is at the forefront of digital finance and payments, leveraging its roles as a central bank, supervisory authority and innovation enabler. Together with the ECB and other national central banks of the euro area, we, as Banca d'Italia, have been running analyses in view of the possible introduction of a digital euro and have conducted exploratory work on new technologies for wholesale central bank money settlement. We participate in the Eurosystem PISA Framework,²⁷ which also covers digital payment tokens; we supervise crypto-asset issuers and service providers as the national competent authority under MiCAR, together with Consob (Commissione Nazionale per la Società e la Borsa), the Italian Companies and Stock Exchange Commission; we also offer an integrated set of innovation facilitators designed to encourage dialogue with market participants and support the development of FinTech projects (among others, Canale Fintech and Milano Hub).²⁸

3. The need for international cooperation and cross-sectoral coordination

The third challenge that I would like to raise today is related to the need for international cooperation and cross-sectoral coordination efforts aimed at establishing, implementing, and enforcing common minimum standards and rules. The borderless nature of digital assets, in fact, makes it difficult to link them to a given jurisdiction for regulatory, anti-money laundering (AML) and counter-financing of terrorism (CFT), and tax purposes, opening the door to regulatory and tax arbitrage as well as other unintended consequences.

In this regard, one issue to monitor is how the rapidly changing global landscape of digital assets could impact the EU market and regulatory framework. It is critical for EU central banks and supervisors to thoroughly assess the effectiveness of the new digital asset regulation and to address potential risks, especially those arising from the increasing interconnectedness and exposure of European financial intermediaries to non-EU products and operators. It will also be essential for EU institutions to continue to

At the end of 2023, 94 per cent of central banks surveyed by the BIS were either exploring or testing the issuance of a CBDC. See A. Di Iorio, A. Kosse and I. Mattei, 'Embracing diversity, advancing together - results of the 2023 BIS survey on central bank digital currencies and crypto', BIS Papers, 147, 2024.

Payment Instruments, Schemes and Arrangements. The PISA framework establishes a set of oversight principles, based on international standards, to assess the safety and efficiency of electronic payment instruments, schemes and arrangements (source: European Central Bank website).

C. Scotti, 'Journey to the future of the financial system', speech at the 31st ASSIOM FOREX Congress, 2025, p. 8.

advocate for the implementation of the standards for digital assets and new technologies promoted by international organizations.²⁹

In taxation, the OECD, under the auspices of the G20, has developed a new standard for the automatic exchange of information on crypto-assets³⁰ to prevent them from becoming a new 'tax haven'. Many countries have committed to adopting this standard. The EU has already implemented it with a forward-looking approach to the definition of crypto-assets, which ensures that the scope can be expanded to include future asset types.³¹

While these efforts are a major step towards extending tax compliance to digital assets, some challenges still remain, particularly regarding their limited geographical coverage and their applicability to decentralized transactions, which may create loopholes. Another major challenge is the lack of international coordination in the tax treatment of digital assets. Differences in countries' approaches may affect the development of national markets and lead to jurisdictional arbitrage. Additionally, the lack of global coordination could result either in double taxation or in digital assets being untaxed altogether.³²

The uneven implementation of AML/CFT rules for digital assets also poses concerns. A widespread application of these rules is essential to leverage synergies with tax compliance and reduce redundancies between the two frameworks.³³ Despite the introduction of specific standards by the Financial Action Task Force (FATF),³⁴ significant variation in their implementation and enforcement still exists. This creates opportunities

As regards crypto-assets and DeFi see: Committee on Payments and Market Infrastructures (CPMI) and Board of the International Organization of Securities Commissions (IOSCO), Application of the Principles for Financial Market Infrastructures to stablecoin arrangements, July 2022; Basel Committee on Banking Supervision (BCBS), Prudential treatment of cryptoasset exposures, December 2022; FSB, Global Regulatory Framework for Crypto-asset Activities, 17 July 2023; IOSCO, Policy Recommendations for Crypto and Digital Asset Market, 16 November 2023; IOSCO, Policy Recommendations for Decentralized Finance (DeFi), September 2023; Financial Action Task Force, Targeted Update on Implementation of the FATF Standards on Virtual Assets and Virtual Asset Service Providers, FATF, Paris, 2024.

OECD, International Standards for Automatic Exchange of Information in Tax Matters. Crypto-Asset Reporting Framework and 2023 update to the Common Reporting Standard, OECD Publishing, 2023. The Crypto-Asset Reporting Standard (CARF) mirrors the Common Reporting Standard for financial assets (CRS) and, like the latter, leverages AML KYC rules.

Directive (EU) 2023/2226 (DAC 8) on administrative cooperation in the field of taxation, adopted by the Council of the European Union on 17 October 2023.

The need for multilateral and supranational solutions to the tax problems arising from the increasing globalization and digitalization of the economy has long been at the forefront of the main international fora and institutions, such as the G20, the G7, the OECD, the EU and, more recently, the UN. It has been cited, among others, in E. Letta, *Much More Than a Market*, April 2024 (the 'Letta Report').

As also highlighted by the IMF in E. Mathias and A. Wardzynski, 'Leveraging Anti-money Laundering Measures to Improve Tax Compliance and Help Mobilize Domestic Revenues', IMF Working Paper, 21 April 2023. Tax crimes are one of the main predicate offences of money laundering in most countries. On the role of the financial intelligence units (FIUs) in tackling serious tax crime, see the Bulletin of the Egmont Group of FIUs, 'Money Laundering of Serious Tax Crimes - Enhancing Financial Intelligence Units' Detection Capacities and Fostering Information Exchange', July 2020.

FATF Recommendation 15 and related Interpretative Note, regulating, inter alia, the supervision and obligations of crypto-assets service providers (CASPs) – including Know Your Customer (KYC) rules and the reporting of suspicious transactions to the FIUs – and the transparency of crypto-asset transfers ('travel rule').

for regulatory arbitrage, undermines the global response against the illicit use of digital assets, and jeopardizes cross-sectoral domestic coordination and international cooperation. The launch of a new round of mutual evaluation by the FATF and its global network will help exert further pressure on countries to strengthen their AML/CFT systems, including for crypto-assets. In the EU, MiCAR and the Transfer of Funds Regulation (TFR)³⁵ are aligned with FATF standards, and the new EU Anti-Money Laundering Authority (AMLA) will improve supervision and cross-border cooperation.³⁶

Importantly, AML/CFT and tax authorities face similar challenges nationally and internationally, particularly due to the decentralization and a-territoriality of many digital assets and payments. While these issues are being addressed within their respective regulatory domains, effective cross-sectoral coordination is essential to maximize synergies and face emerging risks.

Conclusions

Digital assets are reshaping the payment and financial industries, offering new opportunities but also posing new risks or exacerbating traditional vulnerabilities.

In this rapidly evolving landscape, the development of new approaches to regulation and taxation, alongside the traditional ones, is crucial to avoid undue constraints on innovation while safeguarding financial stability and integrity, the proper functioning of markets and payment systems, the protection of individuals' rights, and the fulfilment of tax obligations. Rules should be simple, fair, clear, consistent, and future-proof; they should also exploit synergies across domains where possible.

Central banks and regulators play a key role in balancing innovation with secure, efficient financial and payment services that support the economy, while providing a solid anchor for tax systems. Banca d'Italia is committed to this mission, working within the EU's new frameworks for digital assets while encouraging innovation and ensuring the effectiveness of new rules.³⁷ Tax policymakers may contribute to designing a clear legal framework for digital assets through straightforward rules that also maintain fairness with traditional instruments.

This conference provides an opportunity to discuss these issues and emphasize the need for rules fit for the digital age. I look forward to a productive and engaging discussion.

Regulation (EU) 2023/1113 of the European Parliament and of the Council on information accompanying transfers of funds and certain crypto-assets.

AMLA will ensure coordinated and convergent supervisory actions on CASPs and will possibly directly supervise those posing the highest risks. AMLA will also contribute to improving cooperation between FIUs and support the development of joint analysis on suspicious cross-border cases, involving crypto-assets.

See instance, Banca d'Italia, 'Regulation (EU) 2023/1114 on Markets in Crypto-assets (MiCAR)', Communication of 22 July 2024.