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CUMMINGS PEPPERDINE ON TOKENISATION

Tokenisation is a term which is growing in use. What is means can be interpreted in different ways and in this note we seek to demystify the term for you, and show how it can be used in real life.

Tokenisation has significant potential implications for financial markets and their participants, especially in regard to achieving policy makers' objectives of promoting financial stability, protecting financial consumers, and ensuring market integrity. We tackle tokenisation in this latest edition.

1. WHAT IS TOKENISATION?

Tokenisation of assets involves the creation of digital tokens representing real assets, which are issued on the blockchain. Asset tokenisation is the procedure of digitally representing an existing real (physical) asset on a distributed ledger.

1.1 Types

Asset tokenisation can be performed on two asset types: (a) real (physical) assets that are not native to the blockchain ('off-chain'); and (b) assets native to the blockchain ('on-chain').

1.1.1 Tokenisation of Off-Chain Assets

Tokenisation of off-chain assets concerns the representation of pre-existing real (physical) assets on a distributed ledger by connecting or embedding by convention the economic value and rights derived from these assets into digital tokens created on the blockchain. This form of tokenisation also involves the issuance of traditional asses, such as equities, bonds, commodities and/or currencies, in tokenised form (e.g. creation of a token representing a company's share).

Digital tokens exist on the blockchain and carry the rights of the assets they represent, acting as a store of value. The real assets underpinning the issued digital tokens continue to exist in the "off-chain" world and, in the case of physical real assets, these should be placed in custody to ensure that the digital tokens are constantly backed by these assets. Moreover, any asset can be tokenised and rights to such asset be represented on a distributed ledger.

1.1.2 Tokenisation of On-Chain Assets

Tokenisation of on-chain assets relates to tokens that are built directly on the blockchain and exist exclusively on the distributed ledger. On-chain assets derive their value in and of themselves and are defined by their existence on the blockchain, such as Bitcoin. Two good examples of this are: (a) tokens issued in initial coin offerings (ICOs), as they consist of the creation of digital tokens by companies and their distribution to investors in exchange for funds for the sole purposes of fundraising; and (b) the tokenisation of the equity of a non-listed company, where the portion of shares that are in the hands of public investors is digitally represented by tokens and placed to investors on the blockchain.

A key difference between the tokenisation of off-chain assets and on-chain assets relates to the consequences of the failure of the underlying technology. For example, if blockchain were to face operational failure for an unforeseeable reason, owners of off-chain assets (e.g. shares) will remain shareholders, whereas there is no evidence of ownership of on-chain assets.

Table 1: Two types of asset tokenisation

OFF-CHAIN ASSETS	ON-CHAIN ASSETS
a. Exist and trade both inside and outside the blockchain.	a. Only exist and trade on the blockchain.
b. Cover both financial assets and non-financial assets.	b. Covers financial assets issued on a DLT.
c. Backed by assets outside the blockchain.	c. Defined by their existence on the ledger (independent of the traditional part of the markets).
d. Similar to the securitisation of assets.	d. (Similar to the dematerialisation of assets.

Adapted from Organisation for Economic Co-operation and Development (2020)

1.2 BENEFITS AND RISKS

Tokenisation presents multiple benefits and risks to financial markets participants. These include, but are not limited to:

1.2.1 Benefits

- efficiency gains delivered through the transfer of value without the requirement for trusted central intermediaries and/or through the efficient automation of processes, resulting in faster, potentially cheaper and frictionless transactions driven by automation and disintermediation.
- increased transparency concerning transactional data and information around the issuer and the asset characteristics, through enhanced information recording and sharing.
- distributed nature of the network in the absence of a single 'point of failure', the immutability of the ledger and the application of cryptography potentially adds to the resilience and safety of the supporting infrastructure.
- allows for direct access of investors in primary and secondary markets.

1.2.2 Risks

- quality of the data that is uploaded into the blockchain is crucial for the robustness of information recording and sharing.

- participation of retail investors in previously restricted asset classes in a tokenised form.
- bifurcation of markets due to the parallel trading of tokenised assets both on-chain and off-chain, resulting in negative consequences on liquidity conditions and potential heightened risk of arbitrage.
- potential gaps in the regulatory treatment of tokenisation can result in regulatory arbitrage opportunities, equivalent to the ones witnessed in the ICO market.

1.3 IMPLICATIONS

Asset tokenisation in financial markets has implications on liquidity, trading, asset pricing, clearing and settlement of securities as well as monetary policy transmission. From a securities context, there is a key differentiation between two structures:

- tokenisation of securities that also exist outside of the blockchain, i.e. securities traded outside the blockchain, with part or the entirety of securities being tokenised and transferred on the blockchain.
- issuance of securities in tokenised form directly on - and native to - the blockchain, i.e. without issuing securities in the 'traditional' form.

1.3.1Trading

DLTs facilitate transactions where trust is distributed between the nodes participating in the network, with no central trusted authority or intermediary needed to validate a relationship between two transacting parties. Investors can act as the intermediaries for themselves, and transactions are validated and confirmed by the participants of the decentralised network in return for some transaction fee. In effect, the market-making model is expected to be disrupted by an increased use of tokenisation, with ramifications for the structure – together with the smooth functioning - of the markets. Disruption comes in two main forms:

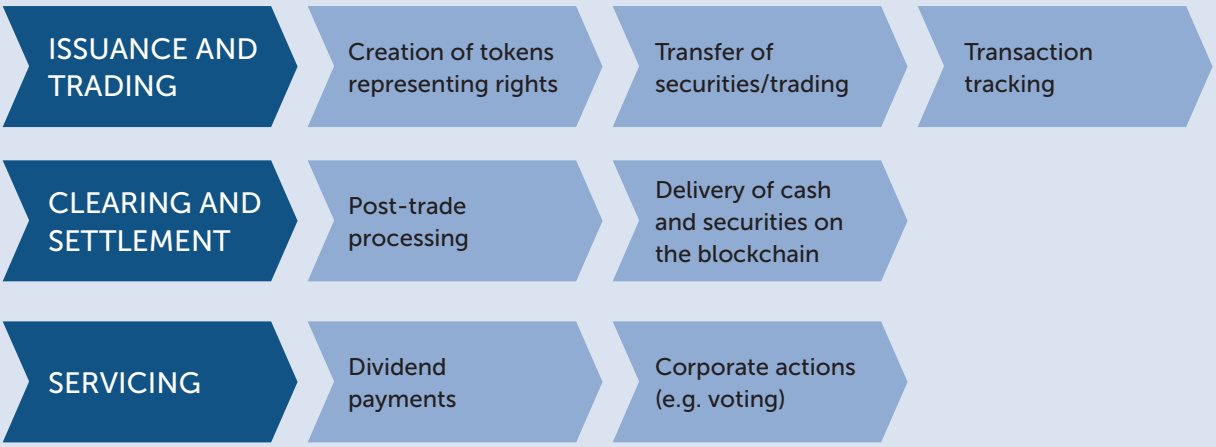
- disintermediation and disruption of the market-making function.
- disruption of repo activity.

1.3.2 Liquidity

Regarding the proliferation of asset tokenisation, the number and diversity of assets that can trade in public markets and gain liquidity may increase. Any asset can be tokenised and DLT infrastructure providers allow for the white-labelled tokenisation of different types of tangible and intangible assets using the same infrastructure and protocols. With respect to the

Figure 1: DLT use-cases for areas in securities markets

Adapted from Organisation for Economic Co-operation and Development (2020)



potential bifurcation of the trading of asset, the main risks include, but are not limited to:

- liquidity mismatch, particularly when investors have limited understanding of underlying assets (akin to structured products).
- shift of liquidity from conventional markets to the blockchain.
- payment leg delays and sufficient funding.

1.3.3 Pricing

The increased transparency level akin to trading on the blockchain may not appeal to participants of markets, particularly where anonymity and obscurity is of value. As an example, fragmented large purchases or sales from market participants, for example large institutional investors, who may not wish to impact the markets with a large block trade order may not be possible in a DLT-based network.

1.3.4 Post-trade services

Blockchain technology may enhance efficiency in the settlement process, reducing complexity and shortening the settlement cycle to near real-time (T+0) compared to T+3 or T+2 settlement periods currently applying. In addition, the use of DLTs can reduce back-office costs and data discrepancies, facilitating the faster reconciliation of data.

1.4 Use cases

Tokenisation can be used to satisfy a variety of business requirements. These include, but are not limited to:

- tokenisation of bonds in the debt market allowing corporate issuers to execute more efficiently, by simplifying the structure, reducing the number of parties involved, simplifying the quantity of documentation required and automating many of the processes.
- tokenisation of shares in the equity market by way of issued shares (issued as uncertificated securities) on the blockchain in the form of tokens.
- trading platform for tokenisation assets concerning fully integrated trading, settlement and custody infrastructure for digital assets.
- tokenisation of real estate concerning the registration of the title deeds on a blockchain register.

2. WHAT CURRENT REGULATIONS ARE IN FORCE?

It remains difficult to understand, with a high degree certainty, whether tokenisation (and how) falls within the United Kingdom regulatory perimeter or is fully captured by the regulator perimeter, especially given the novel nature of some new business models and processes involved.

Potential gaps in the regulatory treatment of tokenisation may result in regulatory arbitrage opportunities and the existence of 'forum shopping'. Existing regulation may need to apply to new actors (e.g. trusted third party guaranteeing the accuracy of information at the onboarding of the asset on the blockchain and safeguarding the asset) and/or new requirements may be needed to be added (e.g. covering the interoperability between DLTs or the interaction or gateways linking both the on blockchain environments and off blockchain environments).

Regulatory obligations and requirements that apply, directly or indirectly, to asset tokenisation primarily relate to capital markets legislation, including, but not limited to:

2.1 The Financial Services and Markets Act 2000 (AS AMENDED)

This is the key legislation relating to the regulation of the UK financial services industry. It contains provisions on multiple aspects of financial regulation, such as the powers of the regulators, the authorisation of firms and the regulatory perimeter. It also contributes an overarching framework for UK financial regulation in the UK by giving HM Treasury

statutory powers to make financial services-related secondary legislation and the FCA and the PRA statutory powers to make rules and guidance for firms that are subject to the FSMA regulatory regime. Key sections of the FSMA include, but are not limited to:

- regulated and prohibited activities (Part 2 and Schedule 2).
- authorisation and exemption (Part 3 and Schedules 3, 4 and 5).
- permission to carry on regulated activities (Part 4A and Schedules 6 and 6A).
- performance of regulated activities (Part 5).
- Provisions relating to market abuse (Part 8).
- Rules and guidance (Part 9A).

2.2 Markets in Financial Instruments Directive (As amended) (MIFID)

MiFID, which forms a fundamental pillar in the European Union Financial Services Action Plan, introduced a comprehensive investment 'passport' enabling investment firms to offer their services across the European Economic Area (EEA) in compliance with a single set of rules. MiFID deals with the regulation of all securities trading venues, including investment firms that either match clients' orders or operate as a securities trading venue on an own account basis.

MiFID was amended in 2014 by a directive, MiFID II, and a regulation, MiFIR. The scope of MiFID II/MiFIR covers markets, intermediaries, and products. The key market changes relate to:

- Third-country access.
- Product control.
- Investment product manufacture and distribution.
- Structured products.
- Commodity derivatives.
- Title-transfer arrangements with retail clients.
- Conflicts of interest.
- Remuneration.
- Execution-only business.

2.3 Securities Financing Transactions Regulation (as amended)

This regulation aims to create a safer and more transparent financial system by applying additional requirements on counterparties to securities financing transactions (SFTs). In general, the regulation requires:

- SFTs to be reported to trade repositories.
- Detailed reporting by undertakings for collective investment in transferable securities (UCITS) management companies, UCITS investment companies and alternative investment fund managers (AIFMs) on investment fund SFT activity.
- Prior risk disclosure and written consent before counterparties are permitted to reuse or rehypothecate assets.

2.4 Central Securities Depositories Regulation (as amended)

Aims primarily to ensure that transactions between buyers and sellers of securities are settled in a safe and timely manner by introducing common securities settlement standards across the EU.Its goal was to achieve these aims by harmonising the following across the EU:

- the conduct and timing of securities settlement.
- the rules governing central securities depositaries (CSDs), which operate the infrastructures that enable settlement.

3 WHAT WILL THE FUTURE REGULATIONS LOOK LIKE?

It is likely that the future regulatory framework will be influenced by regulators' assessment as to the degree to which current rules provide adequate safeguards in the case of tokenisation. Of note, legislation governing the issuance of tokenised securities is a primary regulatory target. This may include issues around:

- settlement and settlement finality and the role of miners and validating nodes (which may be

excluded from existing regulations);

- the safekeeping of private keys and the interactions with the existing custody/ safekeeping rules; and
- the security and safety of the underlying DLT protocol and codes, including in relation to smart contracts.

Regulatory approaches to the tokenisation of assets are likely to address emerging issues in this nascent market. Since most regulators dealing with active tokenised markets have adopted a technology-neutral approach to policies and risks, this could result in the application of existing financial regulations to tokenised assets. Notwithstanding, new tailored frameworks for tokenised assets and DLT-based markets may be introduced, whilst it is also possible that new roles for new actors participating in such markets are subject to regulatory provisions. In certain instances, existing regulation will be adjusted to address specific characteristics and risks unique to decentralised networks and systems.

Tokenisation could also raise other specific legal issues, depending on its precise form. These might pertain to the role and liabilities of the party originating the tokenisation and the existence of a legal claim on the underlying asset for investors.

4. HOW CAN WE HELP?

We advise our clients on how to tokenise their assets, both on-chain and off-chain. We provide clients with valuable insight on how to surmount the regulatory hurdles posed moving their assets on to the blockchain. As tokenisation straddles multiple areas of the financial services' legislative framework, our assistance gives our clients assurances that their business models can operate in a legally sound manner. This expertise is built on a strong combination of extensive experience and deep subject matter knowledge.

We have in-depth experience of firms' business models. We have hands on experience in helping firms design, manage and operate the respective processes that can benefit from tokenisation. We have experience across all firm types and asset classes, giving us unique insight on the potential impact of tokenisation. We have structured our frameworks, policies, procedures and other aspects of the legal infrastructure based on this specialist knowledge.

We consult a variety of knowledgeable information sources. Our internal team consists of former back-, middle- and front-office personnel who have a proven track record of delivering on projects covering the securities trading value chain. Moreover, we are members of various industry and membership associations that give us actionable insight that can be applied for the benefit of our clients.

We can help our clients on overcoming the regulatory or legal ambiguity around asset tokenisation. We leverage our understanding of asset tokenisation to reduce uncertainties and risks for participants in tokenisation market. We contribute to the structure of smooth functioning marketplaces and provide the steppingstone to their safe development required for widespread use by market participants.

5. LINKED PUBLICATIONS

This should be read alongside our other publications to provide context. These are:

Cryptionary:
Cummings Pepperdine on Cryptoassets:
Cummings Pepperdine on The Regulation of Cryptoasset Business:
Cummings Pepperdine on UK Regulatory Developments in Cryptoassets:
Cummings Pepperdine on FCA Regulated Activities and Investments:

THE TEAM

Cummings Pepperdine is a leading advisor in crypto. We are one of a select few that advises a large and diverse global client base in the crypto space and the only to provide a complete crypto solution building on the three key areas of law, tax and FCA with legal underpinning at every point.

In law, we have a team of qualified and regulated solicitors and barrister who retains right of audience.

In tax, we have one of the only crypto tax advisors who is both a qualified solicitor and qualified chartered accountant.

In regulation, our team comprises specialists in crypto compliance monitoring structures and governance oversight who are known to the FCA for the quality of their work.

The team is led by Claire Cummings, a leading solicitor specialising in crypto law and the current and evolving regulation. Claire is on the advisory boards of a crypto exchange and an NFT gaming guild and is also a member of the Global Digital Finance working group on stablecoins. Claire has also acted as compliance officer, MLRO and director of an FCA regulated fund manager and qualified under SIB to trade derivatives. As a leading expert in crypto, Claire is a sought after speaker and has published multiple articles on the legal and regulatory issues surrounding cryptocurrencies and the crypto eco-system. Claire is named at the Top 10 influencer in London for hedge funds (2&20, 2022) and is included in the CityWealth Crypto Top 100

Claire Cummings

The Cummings Pepperdine Online Training Programme, includes sections focussing on on Tokenisation , has been designed by a specialist board of compliance consultants, solicitors, chartered accountants, tax advisors and regulatory consultants. We believe that we are the only firm which offers training created by this range of qualified advisors.

Click here now to make it all work

Watch our introductory video

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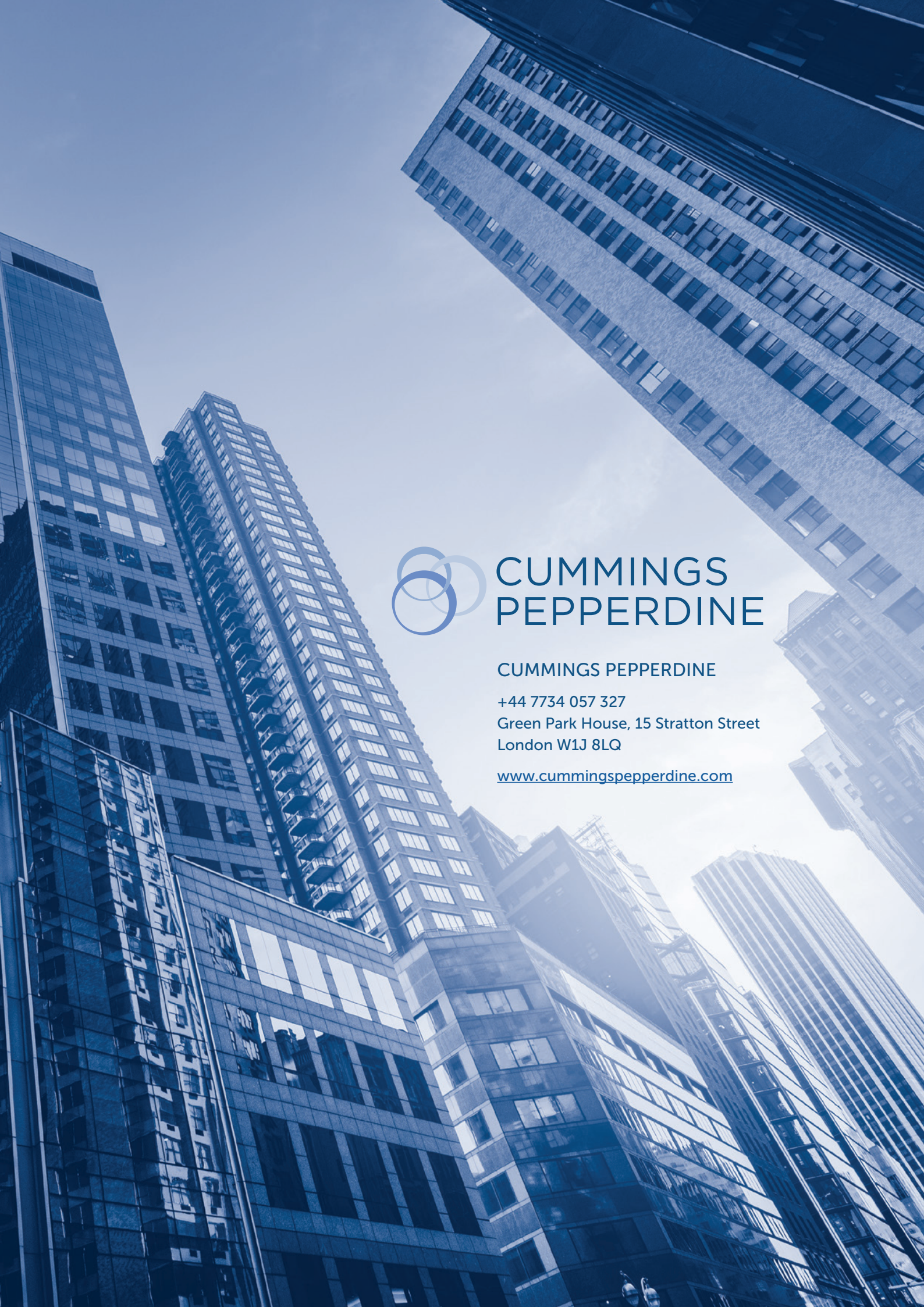

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