

Contractual Standards for Digital Asset Derivatives

Banking & Finance analysis: Akber Dato, CEO and founder of D2 Legal Technology and P.R.I.M.E. Finance expert, discusses the paper on Contractual Standards for Digital Asset Derivatives, published by the International Swaps and Derivatives Association (ISDA) on 14 December 2021.

Original news

ISDA paper outlines its work on the creation of contractual standards for digital asset derivatives, [LNB News 14/12/2021 68](#)

The International Swaps and Derivatives Association (ISDA) has published a paper on the creation of contractual standards for digital asset derivatives in order to develop a 'safe, efficient digital asset derivatives market'. ISDA says digital assets have the potential to transform the way in which financial markets operate and how investors interact with the financial system, while digital asset derivatives can increase transparency and liquidity in the market by facilitating price discovery and allowing market participants to hedge risk. However, the paper says it is vital that growth of the market is 'based on firm foundations'.

What is ISDA hoping to achieve in its paper?

Digital assets have grown from a market value of effectively zero a decade ago, to a position where the total value of digital assets is today estimated to be approximately **US\$3trn**. Accordingly, they are becoming increasingly important within the financial markets, as well as gaining more mainstream acceptance through retail establishments such as Tesla and Starbucks accepting payments in cryptocurrency and the news-grabbing sale of some non-fungible tokens (NFTs). There is an ever-increasing number and diversification of market participants in this area.

ISDA is seeking to assist with the growth of this market in a manner that is built on firm foundations and standardised approaches that mean bespoke terms of trading do not create basis risk or unintended consequences (for example in terms of market and technology disruption events), and do not stunt the growth of this rapidly developing market.

What are digital asset derivatives?

The term digital asset can of itself be difficult to define and is perhaps best thought of as assets that are represented digitally or electronically, including cryptoassets (where the digital asset is created or implemented using cryptographic techniques). A digital asset derivative is therefore a financial instrument that derives its value from these assets that are represented digitally.

There are currently two main types of underlying assets in the case of digital asset derivatives:

- where the underlying is a natively digital asset (for example, Bitcoin and Ether)
In this case, the asset exists solely as a digital asset. These assets may constitute property in some jurisdictions, but they do not represent or constitute any legal or proprietary interest in other assets or rights.
- where the underlying is an asset-referenced digital asset (for example central bank digital currencies (CBDCs) and stablecoins)
In this case, the digital asset underlying references a further underlying asset or right—either through a legal or operational mechanism.

How are digital asset derivatives different to other derivatives?

One of the main differences is the fact that the underlying asset is based on distributed ledger technology such as blockchain. This has potential impact on the functioning or even economics of the transaction—for example, various disruption events that might occur that are unique to such technologies, for instance forks that might arise as a result of a change in protocol.

In some cases, the market infrastructure may significantly differ from those relevant for traditional assets—for example, there may be no centralised authority tracking ownership or primary trading venue for certain types of digital assets. It is typically the underlying technology itself that has been used to create the digital assets that manages the ownership tracking and chain of control.

Digital assets are of course in a state of regulatory uncertainty, with an inevitable influx of regulation as their market significance increases. This is likely to create pronounced valuation issues or heightened disruption risks that are different to those for other

derivatives asset classes such as interest rates or equities, for example.

The uncertainty over the status of digital assets as property is also relevant. Some digital assets may be capable of being the object of property rights in certain jurisdictions, whereas others may not. This is again a moving area which may create further issues. The [Law Commission](#), for example, has been looking into the ambiguity as to the legal categorisation of certain digital assets—specifically, whether certain digital assets should be categorised as:

- things in action
- things in possession (potentially by virtue of law reform), or
- belonging to a third category of personal property which is neither a thing in action nor a thing in possession

This may have a significant impact on the manner in which payments and/or deliveries are considered in the context of derivatives documentation.

What are the issues surrounding the development of contractual standards for digital asset derivatives?

Contractual standards are best developed once there is a body of market approaches that can be codified and standardised. It can be difficult to judge whether it is too early or respond in this regard.

This is relevant, for example, in the design of disruption event observation, determination and subsequent action. It is very important that the disruption events for digital asset derivatives are designed in a manner that supports digitisation and automation. Clear definition and parameterisation will be crucial to ensure that the scope of each event is clear, its negotiation is highly standardised, and that the consequences resulting from the events are deterministic and where appropriate, capable of being deployed within a smart derivatives contract. For more information, see Ciarán McGonagle and Christopher D Clack, [Events within Smart Derivatives Contracts](#).

Valuation is another important area that is likely to bring a series of issues. Financial derivatives transactions utilise a number of different valuation sources, such as screen rates, trading venue data, published index prices and internal modelling. Given the pace of digital asset market development, novel issues are likely to occur here, compounded by the current lack of regulated trading venues and transparency over methodologies for publishing data. The continuous and global operating nature of digital asset markets, rather than discrete time periods, may also cause issues with traditional concepts such as 'Local Business Day'.

There are also a number of considerations that need to be addressed in terms of the interaction any digital assets derivatives definitions might have with the broader ISDA documentation architecture.

How can digital asset derivatives interact with the existing ISDA documentation architecture?

There are a number of items in the context of the ISDA Master Agreement that may need to be considered in respect of expanding transactions to include digital asset derivatives. These include:

- the location of performance
- whether deliveries of digital assets could or should be treated as payments under the ISDA Master Agreement (for example, what does 'freely available' mean in this context, impact on payment netting provisions, contractual currency provisions and the meaning of the term 'account' if the parties are intending to reference an address recorded on a DLT or wallet interface)

Certain digital asset derivatives transactions may create issues in terms of the enforceability and validity of close-out netting opinions, which will need to be assessed by relevant legal counsel through industry legal opinions. In the spirit of the automation and truly digital approach being considered, this may also assist with the consideration of smart legal opinions. For more information, see Akber Datoo and Christopher D Clack, [Smart close-out netting](#).

What is the conclusion of the paper, and what are its implications for lawyers?

The paper confirms a number of issues that arise in the context of digital assets derivatives and the need to create templates and definitions for them. It also strongly acknowledges the need to consider this area in the context of natively digital contracts and integration with work being undertaken in respect of clause taxonomies and libraries, the Common Domain Model and a legal agreement data model.

It is clear that this is going to be a growing area of market interest requiring innovative approaches to the novel issues and challenges an increasingly digital world will bring. It is crucial that lawyers seek to understand the underlying technologies and processes in addition to business and commercial concepts of this new asset class.