

Digital derivatives

S&P Global Platts interviewed Blythe Masters, a derivatives pioneer who serves as CEO of Digital Asset, a New York-based start-up hoping to rewire global finance.



Blythe Masters
CEO
Digital Asset

Why have you invested in blockchain?

We see distributed ledger technology, or blockchain, as being a transformational technology with extraordinarily powerful implications.

For the first time, it allows for entities that have a common interest in a workflow or process to be able to intentionally share a common record of that for the premising of value – not just information, but units of value, whether that is securities, derivatives or transfers of money, commodities, or anything else.

By allowing a reliance on a shared golden record of that activity, it enables several very important things.

One is enormous efficiency gains, because the traditional process of trying to reconcile all the complexities associated with those activities is materially reduced. The number of errors that lead directly to reconciliation differences has been reduced, because you're operating from a common record.

At the same time, you don't have to compromise by blindly trusting your counterparty or a third party to provide you with the truth of that record. You're able to independently validate it with mathematical certainty.

You're also not required to compromise on the privacy and confidentiality of

your proprietary activity. The efficiency gains for financial markets use cases – both in terms of the cost and material-risk reduction – can lead to margin and liquidity-need reductions.

What does your blockchain solution offer?

Let's start with the problem: the problem is that there are significant bodies of transactional load and there are multiple counterparties to those activities, who have a shared interest in correctly reporting the transactional arrangements between them.

Often, it is multi-party: there are clearing entities involved, there are regulators who have reporting requirements, there are many different inputs to the correct processing of derivatives or trading activity.

We have a full-stack solution, in that we provide a distributed ledger platform and extensive tooling for the modelling of business logic into applications that reside and run on top of that platform.

Those applications vary, but they include the likes of supporting end-to-end lifecycle services; streamlined account structure, creation and governance; improving risk management; modeling and automating product structuring; modeling and



Mark Pengelly
Digital Content Leader
S&P Global Platts

automating collateral requirements and margin terms; performing regulatory reporting and providing regulators with supervisory tools.

The tooling we provide is based on a smart contract modeling language called the Digital Asset Modeling Language, or DAML. That facilitates straight-through processing and automated execution by the multiple parties that are participants in these transactions.

Often, there are more than two interested parties in any given transaction—and, in many cases, many interested parties. So that eliminates duplicative systems, reconciliation requirements and other manual processes, and this, in turn, reduces risk. The result is huge efficiency gains.

Notice that I haven't mentioned a particular asset class, because these solutions are asset-class agnostic. They vary depending on the instrument and on the market rules, but the basic concepts are the same, whether you're talking about an interest rate swap or a commodity derivative.

Can blockchain move beyond the hype?

The short answer is yes.

While I certainly agree there was a lot of hype in the early days that preceded real substance, the hype was born by the power of the idea of decentralization and the close affiliation of the space with cryptocurrencies, which were part of the original invention.

Bitcoin came about because of blockchain, and blockchain came about because of Bitcoin: they are inherently linked.

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—Blythe Masters, Digital Asset CEO

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That has addressed some of the design differences needed to diverge from the public blockchain concept, in order to actually deploy this technology in an enterprise context, particularly around financial services that are regulated and involve the transfer of large amounts of value. That work is not complete, but it is materially advanced.

For example, an organization like the Australian Securities Exchange is a top-10 national equities market. It is designated as systemically consequential to its market and is highly regulated.

ASX is replacing its entire post-trade infrastructure for the processing of cash equities with Digital Asset's distributed ledger technology. That is a material development, not just for us and ASX, but for the industry as a whole.

It's an instance in which, in the most demanding of environments—one that is highly regulated, with extraordinarily high volumes, high contingency requirements and high availability requirements—the technology has been tested and validated by a very tough customer.

Like all market infrastructures, ASX has no capacity for adding risk given its responsibilities, nor do its regulators have any appetite for that happening. The fact this technology has earned the credibility with an organization like ASX probably answers your question.

How do you keep regulators onside?

We interact with regulators the world over. These conversations very often start with concerns that blockchain technology means something that looks like the Bitcoin blockchain.

Once you've alleviated the concern that the world stock markets or bond markets are going to be operating on a peer-to-peer basis with no regulation, no visibility and anonymous actors, the conversations actually become quite constructive, because there's a lot of upside in this for regulators.

They often don't get to see market data until hours, days or weeks later, and then from multiple, disaggregated sources.

Blockchain can give regulators the chance to have a real-time, or near real-time, window into market activity, making their supervision job much easier.