

Blockchain could help regulators spot signs of failing financial market, says US regulator

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Speaking in a personal capacity in [a speech at the Cato Institute](#), Commodity Futures Trading Commission (CFTC) commissioner Christopher Giancarlo said that distributed ledger technologies would have helped regulators intervene better in response to the global financial crisis of 2008 had the technologies been in use at the time within industry.

"In 2008, prudential regulators had to call around to brokerage firms ... searching for market confirmation of Lehman's distress," Giancarlo said. "What a difference it would have made if regulators had access then to a 'golden record' of the real-time ledgers of all regulated trading participants, rather than trying to assemble piecemeal data to recreate complex, individual trading portfolios."

"I believe that, if regulators in 2008 could have viewed a real-time distributed ledger, and, perhaps, been able to utilise modern cognitive computing capabilities, they may have been able to recognise anomalies in market-wide trade activity and diverging counterparty exposures indicating heightened risk of bank failure. It would certainly have allowed for far prompter, better-informed, and more calibrated regulatory intervention instead of the disorganized response that unfortunately ensued," he said.

Even if Lehman Brothers had still failed, the use of distributed ledger technology would have allowed regulators to more easily identify "all of Lehman's exposures within minutes of its bankruptcy filing" and facilitated the "accelerated settlement of open positions and accounts ... [within] weeks, not years", Giancarlo said.

Blockchain, a distributed ledger technology, is best known for underpinning trading involving the digital currency bitcoin, however it has many other potential uses. It is a type of database and, using cryptography, can be operated as a system of public ledger for recording information, such as the transfer of assets between two or more parties.

Blockchain technologies are already being trialled by major financial firms. Earlier this year [over 40 banks participated in testing](#) which involved trading assets using five different distributed ledger technologies.

Giancarlo said that policy makers and regulators should adopt a "do no harm" approach to regulating the use of distributed ledger technologies (DLT) in financial services. He said such an approach helped internet innovation to flourish to the benefit of the US economy and society more generally.

"Do no harm' was unquestionably the right approach to development of the internet," Giancarlo said. "Similarly, 'do no harm' is the right approach for DLT... I believe regulators and policy makers have a choice: we can either follow a path that burdens the industry with multiple onerous regulatory schemes or one where we come together and set forth uniform principles in an effort to encourage DLT investment and innovation. I favour the latter approach."

"I believe that innovators and investors should not have to seek government's permission, only its forbearance, to develop DLT. Government must foster a regulatory environment conducive to the technological innovation needed to address the increased operational complexity and capital consumption of modern financial market regulation. Once again, the private sector must lead. Regulators must avoid impeding innovation and investment. Instead, they must provide a predictable, consistent and straightforward legal environment," he said.

Expert in financial technology Yvonne Dunn at Pinsent Masons, the law firm behind Out-Law.com, said: "There is so much hype around blockchain and people are desperate to see concrete examples of how the technology could be used. However we need to give businesses space to collaborate and innovate."

"It is interesting to compare the development of the internet to what is happening with DLT – the crucial difference is that the development of DLT is taking place at a much faster pace even than that of the internet. That is exciting from an innovation point of view, but also represents a challenge for regulators and regulated companies to keep up with. We may find that some 'killer apps' are developed for blockchain in the lab, but it takes time to get those to market due to regulatory constraints," she said.

Giancarlo said a global "principles-based approach" to the regulation of the use of distributed ledger technologies in financial services is necessary "to avoid impeding essential DLT innovation by protracted rule uncertainty or uncoordinated actions".

"Just as many financial services firms are joining together in broad DLT consortiums, regulators must do the same," Giancarlo said. He called on the Financial Stability Board (FSB) and The International Organisation of Securities Commissions (IOSCO) to "put forth a set of simple governing principles flexible enough to accommodate the issues and concerns of different national regulators" whilst ensuring regulation does not impede the development of distributed ledger technologies.

"Without such a 'do no harm' approach, financial services and technology firms will be left trying to navigate a complex regulatory environment, where multiple agencies have their own rule frameworks, concerns and issues," Giancarlo said. "Some of the issues are anti-money laundering, know-your-customer requirements, privacy and security and dispute resolution. It is therefore critical for regulators to come together to adopt a principles-based approach to DLT regulation that is flexible enough so innovators do not fear unwitting infractions of an uncertain regulatory environment."

Giancarlo welcomed the approach the UK's Financial Conduct Authority (FCA) has outlined in supporting the development of distributed ledger technologies for use by financial firms. He said he thinks the regulator's approach will boost "London's burgeoning fintech industry and job creation in the United Kingdom".

"The UK regulator's reputation for being open to innovation in fintech, which is backed up Project Innovate and the regulatory sandbox initiative, is an important reason why the UK is leading the way in fintech," Dunn said. "So arguably the FCA is already embracing the 'do no harm' philosophy."