Blogs
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Asset Management ADVocate

Why Blockchain Custody Is So Difficult—A Hard Part

In our previous post, we provided a simple answer to the following question posed by Director Dalia Blass of the SEC's Division of Investment Management:

> To the extent a fund plans to hold cryptocurrency directly, how would it satisfy the custody requirements of the 1940 Act and relevant rules?"

Our simple answer was to treat cryptocurrencies as "financial assets" under Article 8 of the Uniform Commercial Code. But, as Director Blass knows, this is not the end of the questions relating to custody. Her letter included additional questions, such as:

> If the fund may take delivery of cryptocurrencies in settlement, what plans would it have in place to provide for the custody of the cryptocurrency?"

This question relates to a core operation of investment companies: trading.

Execution and Settlement

Securities trading developed at a time when brokers met in one location, agreed to a trade and then obtained the required securities certificates or cash from their clients to complete the transaction. The legacy of this intermediated physical venue is that the process of transferring securities is broken into discrete steps. Broadly speaking, the steps are:

- Execution, when the parties' brokers agree to a trade;
- Clearance, when the parties (or their agents) take the steps necessary to complete the trade; and
- Settlement, when the securities are delivered to the buyer in exchange for the payment to the seller.

This process used to take five days for most corporate securities. Currently, for most market participants, it takes two days, with a goal of straight through processing. Breaking trading into steps allows an investment adviser to use different intermediaries for different steps. An adviser can execute a trade with a broker or dealer and then send instructions to a custodian with the trade details. The custodian uses the instructions to clear and settle the trade through a central clearing facility, such as DTCC, maintaining control of the fund's assets throughout the settlement of the trade. The adviser and broker never take actual or constructive possession of the securities and cash being traded.

Crypto Trading

The environment for trading cryptocurrencies—virtual, decentralized and automatic—is nearly the opposite of an old-style securities exchange. Blockchains are designed to record transfers of digital assets in real time, so there is no reason to break trades into sequential steps. If a record of a transfer is sent to the system with a valid cryptographic signature, it is added to the next block. This requires traders to transfer cryptocurrency as they trade, rather than sending it at a later settlement time. Most centralized trading platforms require traders to set up wallets on the platform and permit only cryptocurrency held in the platform wallet to be traded. Even decentralized trading systems require cryptocurrencies to be transferred to the trading contract at the same time the contract is executed. There is no time to fit a custodian into the process.

Why Crypto Does Not Fit the FX Model

Custodians routinely execute spot foreign exchange ("FX") trades for their customers, so one might assume they could do the same for cryptocurrencies. Most custodians offer FX services because they act as FX dealers for other customers in their regular business as a bank or broker-dealer. The fund trades directly with its custodian at the spot exchange rate the custodian currently offers to other FX traders. Spot FX trades are typically incidental to a trade involving a foreign security, so the fund may view convenience as more important than shopping for the best exchange rate. While custodians could become cryptocurrency dealers, the ease of trading cryptocurrency directly may limit demand for this service to their custodial customers. Moreover, an investment adviser who trades cryptocurrency will probably not want to limit its funds to whatever price the custodian happens to offer. Advisers who actively trade FX as part of a strategy commonly work trades with multiple dealers.

Conclusion

This post illustrates a problem with our simple answer to how to provide for the custody of cryptocurrency. The Investment Company Act requires a custodian to maintain custody of a fund's financial assets until they are sold or paid off, but the structure of the markets for cryptocurrency requires a trader to control the cryptocurrency before trading. Our next post will examine frameworks for some possible solutions to this dilemma.

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