

Blockchain Cash Issuer Q&A with R3 Legal Center of Excellence

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A Q&A with member firms of the R3 Legal Center of Excellence on legal issues and applicable laws to consider when setting up a tokenized cash issuer using distributed ledger technology (DLT) in order to move cash between parties on the blockchain.

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COLLATERALIZING THE TOKEN WITH CASH

A token provides fungibility as opposed to simply creating a record on a ledger of the owners of deposits. A fungible asset is needed – not simply a (state-owned) record of a deposit. It is critical that this asset be collateralized so that the cash token (cashtoken) is representative of legal tender that is actual settlement currency.

Cashtoken is also less likely to be classified as a cryptocurrency by applicable regulators because:

- Prudential bank regulators in the major applicable jurisdictions will likely need to accept and be able to transact in cashtoken for a cashtoken system to be operable in the first place.
- Cashtoken is backed by actual cash assets, whereas cryptocurrencies like Ether and Bitcoin are:
 - not legal tender in most jurisdictions; and
 - relatively volatile in value compared with most major fiat currencies with value unrelated to any single economy.

ANALYSIS REGARDING APPLICATION OF LAWS TO DLT CASH ISSUER: OVERVIEW

An analysis regarding the application of laws to a cash issuer on the blockchain consists primarily of an analysis of the following factors:

- The cash issuer ownership structure:
 - whether the issuer is a bank or nonbank; and
 - whether the bank/nonbank owns the cash issuer or another party is the owner. (Where the bank/nonbank is owner, whether there is, for example, partial ownership, indirect control, or a passive-minority interest.)
- The jurisdiction:
 - of the issuer; and
 - where activity of the issuance is taking place.
- The type of token being issued and whether it is:
 - fully collateralized;
 - a token with liabilities against issuer but no collateral; and
 - non-collateralized (with no liability on behalf of the issuer).

In order to get an understanding of the legal issues involved in issuing cash on a private or semi-private blockchain network, Practical Law and the R3 LCoE have convened a roundtable of LCoE member firms to address the following key threshold questions:

- What are the licensing requirements and anti-money laundering (AML) considerations for cash issuers in the US, EU, and UK?
- Would a cash issuer need to seek license in the jurisdiction in which it is based, in which it operates, or both?
- How does licensing change (if at all) where the ownership of the cash issuer is split among different organizations? Different banks?
- What are the operational restrictions or considerations to account for in setting up a cash issuer?
- What recourse would the owner of a cashtoken have if either the cash issuer or commercial bank defaults?
- At what point is the transfer of the token considered legally settled for a user of the token? This depends on whether the movement of balances on a ledger constitute a payment or whether payments on ledger are settled at the bank level afterwards.

The firm responses to these questions follow.

WHAT ARE THE LICENSING REQUIREMENTS FOR CASH ISSUERS IN THE US?

Shearman & Sterling:

Cash can be understood as a set of asset representations that allow for the transfer of value between applications. This is true whether physical money or a digital representation of value that function as mediums of exchange, unit of account, and/or store of value. For any issuer of cash (a cash issuer) in either form, relevant licensing requirements and anti-money laundering (AML) considerations in the US depend on the particular characteristics of the issuer and its geographic footprint.

This analysis summarizes those licensing requirements for cash issuers other than central banks (not covered are the applicability of laws and regulations in the US concerning securities and commodities, which may apply depending on the particular characteristics of the issued cash).

As a prefatory note, creating official coinage and currency of the US is reserved to the US federal government and any infringement by any other person or entity is illegal per the US Constitution and the Stamp Payments Act of 1862. However, the issuance of cash that is not represented as nor understood to be official currency of the US should not implicate these laws and regulations.

A cash issuer will require certain licenses under the federal law of the US and the law of any states in which it operates. With respect to federal law:

- Cash issuers that are either banks or non-banks that are registered with and functionally regulated or examined by the Securities and Exchange Commission (SEC) or the Commodity Futures Trading Commission (CFTC) (or a foreign equivalent) should maintain their existing licenses and AML compliance programs.
- Cash issuers that are non-banks and that are not registered with and functionally regulated or examined by the SEC or the CFTC (or a foreign equivalent) would, to the extent that they do not satisfy an exception, need to register as Money Services Businesses with the Financial Crimes Enforcement Network bureau of the US Department of Treasury (FinCEN) because they would be considered to be engaged in a “money services business.” FinCEN has indicated that:

“...should [an entity] begin to engage as a business in the exchange of virtual currency against currency of legal tender (or even against other convertible virtual currency), [such entity] would become a money transmitter under FinCEN’s regulations [emphasis added]. Under such circumstances, [such entity] would have to register with FinCEN, implement an effective, risk-based anti-money laundering program, and comply with the recordkeeping, reporting, and transaction monitoring requirements applicable to money transmitters.”

Cash issuers must also ensure that they comply with any sanction-related laws that restrict transactions with designated persons, as administered by the Office of Foreign Assets Control (OFAC).

With respect to state law, a cash issuer may, unless not subject to regulation or able to satisfy an exception, require money transmitter licenses in each state in which it facilitates transactions in cash, as well as any virtual-currency-specific licenses to the extent

any relevant state has such a framework in place and activity in virtual currencies is not subsumed by the standard money transmitter license. In addition to these requirements, there may be requirements for entities registered under other state-level financial-services-related laws and regulations, with regulatory approvals as required. With respect to New York, for example, the New York State Department of Financial Services (NYDFS) administers laws and regulations concerning money transmission, virtual currency business activity and related financial services. Any cash issuer subject to the NYDFS’s jurisdiction would need to ensure compliance with all applicable NYDFS requirements.

WHAT ARE THE OPERATIONAL RESTRICTIONS OR CONSIDERATIONS TO ACCOUNT FOR IN SETTING UP A CASH ISSUER?

Holland & Knight:

Insolvency Risk and Collateral Management

While insolvency is not practically possible with respect to money issued by the US Federal Reserve Bank, the European Central Bank (ECB), and certain other central banks, the risk of insolvency must be addressed for any private cash issuer. As such, with the exception of sovereign or central bank issuers, any issuer of digital money will likely need to collateralize its outstanding obligations. There will likely be limitations on the assets that can serve as collateral. Market participants are likely to only permit collateral in the form of either US cash reserves or US government issued treasury bonds — or possibly, AAA-rated investment grade bonds with respect to a portion of its liabilities.

If the digital money is redeemable against the collateral, such that, for example, each unit of digital money is redeemable for US \$1.00, then any collateral not in the form of actual US cash reserves would expose the issuer to some interest rate risk – potentially on a large scale.

Transparency and Market Confidence

Given the importance of the digital money issuer’s financial condition, its collateral structure and balance sheet must be transparent and subject to audit. Blockchain systems can greatly increase transparency by permitting the keeping of records that are considered very difficult to alter or destroy. Consideration should be given to what types of issuer transactions should be included as part of the ledger and who should be authorized to view those records. If properly designed, the issuer could potentially eliminate the need for a traditional auditor, while providing the same or greater transparency into its financial health, by making its records – at least in relevant part – available on the ledger. Presumably, one or more government regulators could also be provided access to these records.

Relationship with Traditional Banking

If the intention is for acquirers of digital money to settle transactions with the digital money and hold balances in the same – in other words, parties would not just use the digital unit as a placeholder for fiat currency, with true settlement occurring off ledger – parties will need to earn at least the equivalent amount of interest or other return on their cashtokens as they would earn on equivalent US dollar balances. If this is the case, the cash issuer will almost certainly need to deposit large amounts of fiat currency with commercial banks, or if the issuer is a commercial bank, with the US Federal Reserve Bank.

Money Services Business and Money Transmission Statutes

For all issuers, but especially non-bank issuers, the issuance of a “substitute for money” triggers a number of regulatory regimes, including federal regulations governing money-services businesses and state money transmission laws. As such, a digital cash issuer deemed to be operating in the US would likely need to be registered as a money services business with FinCEN and licensed under most states’ MT Laws. As it can take years to obtain licenses from every state, operations must be limited to those states where the issuer is licensed. This means an issuer may not exchange digital money for fiat currency with residents located in states where the issuer is not licensed.

Additionally, non-bank issuers that permit customers to maintain both digital money and US dollar balances may need to establish “for the benefit of” accounts with a sponsor bank, similar to PayPal’s original structure. This will require analysis around the application of FDIC insurance limits to such accounts in order to determine whether individual limits apply to each customer account notwithstanding that all cash balances may be aggregated into a single account.

KYC and AML

The issuance of electronic money and/or maintenance of cash balances for customers also raises KYC/AML concerns and obligations. As a money services business registered with FinCEN, a digital cash issuer will be required to have a chief compliance officer, bank-level policies and procedures and robust AML controls. KYC/AML requirements may be difficult to satisfy if digital money can be transferred anonymously.

Of course, KYC/AML is often at odds with competing policy concerns over ensuring an adequate level of privacy with respect to financial transactions. Balancing these competing interests will be a core consideration for issuers of digital money. The regulatory frameworks within which these interests are balanced are likely to continue growing in complexity, as evidenced by the adoption of GDPR in the EU.

Cybersecurity

Similar to privacy rights, cybersecurity will be another important operational consideration. The potential for fraud is always a concern in any payments system, and the failure to adequately safeguard against it would lead to a loss of confidence in the system. Even if confidence can be maintained through private insurance, such failures would significantly increase the cost of providing insurance against those risks. The ability to move large amounts of value almost instantaneously only increase the potential risk of fraud.

This will likely require the implementation of certain safeguards, which will likely come at the expense of the system’s transaction processing speed. The value added by these security and mitigation techniques will need to be balanced against the cost of reducing the system’s transaction flow capacity. This is especially important during the first several years of operation, during which a relatively new technology is sure to produce some unexpected outcomes.

Interoperability

Interoperability with other distributed networks is another major consideration. Interoperability increases the value of digital money to the extent it is accepted for a broader range of transactions or settlement functions. It is possible that different currency zones

could develop on distinct networks. The ability of these networks to have some interoperability and common standards or protocols would likely promote the broader adoption of digital money.

WOULD A CASH ISSUER SEEK LICENSE IN THE JURISDICTION IN WHICH IT IS BASED, IN WHICH IT OPERATES, OR BOTH?

Clifford Chance:

US

From a US regulatory perspective, a cash issuer most likely would need to seek a license both in the jurisdictions in which it is based and in which it operates, i.e., the jurisdictions in which it has customers to which the issuer provides services. The US bank regulatory licensing requirements that would likely be relevant to a cash issuer activity are generally triggered by physical presence in the jurisdiction and/or provision of services to residents in the jurisdiction.

UK

In the UK, the requirement to obtain a license will largely depend on where the characteristic performance of that activity takes place. The UK financial services licensing framework provides that “no person may carry on a regulated activity in the United Kingdom, or purport to do so, unless he is (a) an authorized person or (b) an exempt person.”

This is based on some historical guidance provided in a European Commission communication from 1997, in which the Commission states that “...to determine where the activity was carried on, the place of provision of what may be termed the ‘characteristic performance’ of the service i.e. the essential supply for which payment is due, must be determined[.]”

In the present case, the starting point would be that if the cash issuer were based in the UK, it would need to seek a license in the UK. That said, however, it is not always clear that the “place of provision” of the relevant regulated activity always occurs in the jurisdiction in which a person is located. There are circumstances in which a person who is not established in the jurisdiction may fall within the licensing framework of a jurisdiction in which it is not located because the characteristic performance occurs elsewhere.

For example, a cash issuer based outside the UK that accepts and pays out funds into or from an account held by a cash issuer with a UK bank may be “accepting deposits” in the UK. Similarly, a cash issuer that is located outside the UK but that has a UK presence and conducts certain aspects of the relevant activity in the UK (for example, enters into contracts with UK customers on behalf of the US person) or has its day-to-day management in the UK, may also be considered as carrying on regulated activities in the UK.

EU

Across the EU, the “characteristic performance” test is the basis for determining the jurisdiction in which the regulated activity is performed and therefore where licensing of the cash issuer would be required. However, over and above this, EU member states may also have other touchstones for licensing in their jurisdiction. Notably, to market to or solicit domestic customers for business, a local license will be required (unless so-called “passporting” is available such that the services may be provided on a cross-border basis from other EU member states without requiring additional local licenses or registrations).

HOW DOES LICENSING CHANGE (IF AT ALL) AS THE OWNERSHIP OF THE CASH ISSUER IS SPLIT AMONG DIFFERENT ORGANIZATIONS? DIFFERENT BANKS?

Clifford Chance:

US

From a US regulatory perspective, a split in the ownership of the cash issuer between different organizations should not have an impact on whether the issuer needs to be licensed or not. The regulatory approval requirements for acquiring an interest in the issuer would differ, however, depending on:

- Whether the issuer is a bank.
- The owners of the issuer.

For example, the acquisition of more than 10% voting ownership interest in a US bank is generally subject to prior regulatory approval. Conversely, if the issuer is a non-bank but the acquirer is a bank or another regulated entity, the acquisition may also be subject to prior regulatory notification or approval.

UK/EU

Similarly, in the UK and the EU, the ownership of the cash issuer would not be determinative of the licensing requirement for the cash issuer itself. This is determined by whether the cash issuer is performing regulated activities. In this case, it is likely that the cash issuer would be performing the regulated activities of accepting deposits or the issuance of e-money (depending on certain factors), as well as, possibly, the provision of certain attendant regulated payment services (such as execution of transactions or money remittance) although this is perhaps less clear in the context of a distributed ledger.

Like the US, however, the UK and each other EU member state requires prior regulatory approval of “controllers” of these regulated entities. There are a number of tests for determining whether a person has “control” of a regulated entity and these tests differ depending on the nature of that regulated entity’s authorization. If the cash issuer were a bank, for example, a person holding 10% or more shares or voting rights is a “controller” whereas, for an electronic money institution, a “controller” is a person holding 20% or more shares or voting rights.

There may also be additional restrictions on the ability of certain banks to acquire interests in a cash issuer. For example, in the UK, so-called “ring-fenced banks” cannot acquire a stake of less than 20% (a “participation”) in any entity; stakes of less than 20% may be treated as proprietary trading, an activity which is prohibited for ring-fenced banks, subject to certain exceptions.

WHAT RECOURSE WOULD THE OWNER OF A TOKEN HAVE IF EITHER THE CASH ISSUER OR COMMERCIAL BANK DEFAULTS?

Crowell & Moring:

We have assumed for purposes of this question that the cash issuer, the issuer of the cash token, is a commercial bank and that another commercial bank is using the token as a means of on-ledger cash settlement. We have also assumed “default” to mean a failure to perform associated with insolvency proceedings, and not just a settlement fail. (Note that it is possible for an issuer to become

insolvent and still to perform as required, so insolvency will not always result in a default.)

A threshold question to consider is the structure of the token: Is the token backed by assets and/or does it represent a claim on the issuer? There are three possibilities:

- Tokens that do not represent a claim on the issuer at all and simply represent a means for exchanging value (similar to a typical cryptocurrency).
- Tokens that are not asset-backed but that represent a claim on the issuer.
- Asset-backed, or “fully collateralized,” tokens.

If the token does not represent a claim on the issuer at all, an insolvency of the token issuer should not impact the token – the token could still be used as a medium of exchange since it represents merely a blockchain-based asset and not a contract. Tokens that represent a claim on the issuer (whether or not they are asset-backed) are best considered as contracts or debt instruments – they represent a promise by the issuer that they can be redeemed for some value. In the case of such tokens or “token contracts,” an insolvency of the token issuer will be subject to the applicable bankruptcy regime.

If the token issuer is a commercial bank, it will not be subject to the provisions of the Bankruptcy Code, as receiverships and conservatorships for financial institutions in the US are generally governed by the FDIC receivership process (see Practice Note, Summary of the Dodd-Frank Act: Resolution of Failing Financial Institutions ([2-502-8818](#))).

The role of the FDIC as receiver is to liquidate or sell the assets of the failed institution (many times to another operating institution) and then adjudicate claims that remain with FDIC after it transfers or liquidates the assets. So, it is possible that the token contract would be transferred to another financial institution, in which case the other financial institution would become responsible for the obligations under the token contract (and theoretically, there should be no losses on the part of the token holder).

If the token contract is not transferred to another financial institution, the FDIC as receiver has broad powers to repudiate all contracts regardless of the status of the contract if the contract is deemed to be burdensome. If the FDIC repudiates the contract:

- If the contract was fully collateralized and a security interest was properly granted under state law, the counterparty’s rights in the collateral are unchanged.
- If the contract was not fully collateralized, the counterparty can recover direct damages (such as costs of cover) from the remaining assets of the defunct institution, but this would be an unsecured claim.

For example, Company A (which banks at Citi) needs to make a payment to Company B (which banks at Wells). Citi debits A’s account and initiates a transaction to transfer cash (represented by tokens issued by Citi) to Wells using a peer-to-peer permissioned ledger. Wells is then required to credit B’s account. If Citi defaults – that is, enters into FDIC receivership – after transferring the tokens to Wells but before Wells deposits the tokens into Company B’s account, Wells is left holding tokens and its claim against Citi would be subject to the FDIC process described above.

Even if the tokens are collateralized, there must still be a way of actually obtaining the collateral if the collateral is not a native blockchain asset or otherwise tokenized. A cash issuer of collateralized token contracts will need to hold collateral in a segregated account to make identification and distribution easier, and should be able to provide audited financial statements confirming that the collateral is in fact being maintained.

Note that if the tokens are not asset-backed and do not constitute an obligation of the issuer, there would be no rights on a default by the issuer. However, the price of such an asset would be extremely volatile compared to a cash token – similar to the volatility experienced by Bitcoin as opposed to the expected steady price inherent in a stablecoin.

AT WHAT POINT IS THE TRANSFER OF THE CASH TOKEN CONSIDERED LEGALLY SETTLED FOR A USER OF THE TOKEN? THIS DEPENDS ON WHETHER THE MOVEMENT OF BALANCES ON A LEDGER CONSTITUTE A PAYMENT, OR WHETHER PAYMENTS ON LEDGER ARE SETTLED AT THE BANK LEVEL AFTERWARDS AND DO NOT CONSTITUTE A PAYMENT UNTIL THAT TIME.

Crowell & Moring:

“Legal settlement,” often referred to in connection with “settlement finality,” is generally determined to take place when an obligation to make a payment has been discharged. This definition is used in the Principles for Financial Market Infrastructure (PFMIs), a set of international standards for systemically important payment systems established by the Bank for International Settlements (CPSS-IOSCO 2012).

UCC Article 4A governs funds transfers in the US. It provides that “funds transfer systems” can adopt their own rules and regulations, including choice of law rules, and rules governing when payment obligations are discharged.

The UCC defines “Funds transfer system” broadly and, per the UCC official comment, the term includes both SWIFT and CHIPS (the net settlement system in the US). Certain on-ledger payment transfer systems, likely including business networks operating on a permissioned ledger (such as Corda Connect), would also fall within this definition. This means that it is possible for business networks to set their own settlement finality standards. The question then becomes, what should those standards be? In our view, it depends on who the cash issuer is, as well as whether the notary is a validating or non-validating notary. The answer to these questions will help guide the policy for determining when settlement is final.

Consider a situation similar to project Jasper, discussed in the response to the above question. In Jasper, the cash issuer (the issuer of depositary receipts) was the Canadian central bank, which also acts as validating notary.

In Jasper’s real-time gross settlement (RTGS) system, system rules could provide that legal settlement occurs as soon as the participating banks deliver signed instructions to initiate a transfer of depositary receipts, or that legal settlement only occurs once the notary affirms the transaction. Taking the definition of “settlement finality” from the PFMs at face value, the parties have fulfilled their obligations when the signed instructions are transmitted to the notary. However, we believe the better view here is that settlement finality should be deemed completed when the notary has signed the transaction.

In our view, Jasper’s batch netting system should be governed by rules similar to the rules for CHIPS. For net settlement systems like CHIPS, legal settlement occurs when payment messages are released from the system (see CHIPS Rule 13). This would be the same whether the notary is a validating notary or a non-validating notary. Settlement could not be final before messages are released, because before that time it is not known which payments will be released and which will remain in the queue.

The situation appears to be similar in Project Jasper, since obligations are netted at a specific point in time rather than on a real-time basis. However, we believe that settlements should be deemed final before a transaction has been added to a party’s vault (in most situations the time difference will be miniscule, but to keep with both the CHIPS model and the principle that settlement is final when the paying party’s obligations are discharged, parties should not need to wait until the payment is “received” by the recipient).

However, the answer could be different in a real-time settlement system especially where the notary is not a validating notary. In such a system, a party could be said to fulfill its payment obligations as soon as it initiates a transaction. Creators of business networks for real-time DLT funds settlement should consider whether participants would prefer to have the timestamping function provided by the notary constitute the official time of settlement.

We also believe the answer to the settlement finality question in such a case is contingent on other operational questions. For example:

- What happens to a valid and unique transaction that is signed by the sender but the notary fails to sign it?
- Can a party rescind a transaction before it is signed by the notary?

In the end, operational questions will drive when settlements are deemed final, and the legal system provides flexibility for parties to answer these questions as they see fit.

Note that the responses of Crowell & Moring cover US law, not Canadian law, except where otherwise specified.

*The firms that participated in the LCoE cash issuer roundtable were: Ashurst LLP; Baker McKenzie; Clifford Chance LLP; Crowell & Moring LLP; Fasken Martineau DuMoulin LLP; Holland & Knight LLP; Perkins Coie LLP; Shearman & Sterling LLP; Strock & Strock & Lavan LLP.

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