

Comments on BCBS consultation paper on designing a prudential treatment for crypto-assets

Jason Au, Director, KPMG Canada

David Alexander, Manager, KPMG Canada

Q8

Which risks would be the most material with respect to banks' exposures to crypto-assets? Are there additional risks other than those listed above which banks could be exposed to as a result of holding direct or indirect exposures to crypto-assets, or providing related services? To what extent do these risks differ based on the type and design of crypto-assets, and how do they differ to traditional asset classes?

We agree with the BCBS' principle of 'same risk, same activity, same treatment' for crypto-assets. Financial risks facing crypto-assets are not unlike other asset classes and in many respects can be treated in a similar manner. Additional considerations should be taken into account on an asset-by-asset basis based on specific attributes of the individual crypto-asset. For example, the following table shows the average daily trading volumes for the five largest crypto-assets in 2019:

Trading volumes of the five largest crypto-assets

	Bitcoin	XRP	Ethereum	Bitcoin Cash	Litecoin
Average Volume (tokens)	328,025.29	983,882.47	665,293.46	39,453.96	25,714.38
Average Volume (USD)	\$2,429,098,712.79	\$284,008.25	\$125,143,507.25	\$11,606,912.65	\$1,874,415.61

Source: Data Files, CoinMetrics, accessed January 2, 2019 with calculations completed by KPMG

While these volumes may be high for crypto-assets like Bitcoin, the volumes can be misleading as large block trades create the possibility of market manipulation (e.g. churning), and the lack of market transparency regarding orders can be misleading.

For crypto-assets, which are more volatile than physical asset backed assets, the measure of value-at-risk (VaR) can be relatively high. This can be seen in the component VaR (cVaR) estimates for the five largest crypto-assets shown below.

cVaR of the 5 largest crypto-assets

	Bitcoin	XRP	Ethereum	Bitcoin Cash	Litecoin
Component 1 day 99% VaR (%)	-0.55%	-0.25%	-0.41%	-0.56%	-0.55%
Component 10 day 99% VaR (%)	-1.74%	-0.80%	-1.31%	-1.77%	-1.73%

Source: Data Files, CoinMetrics, accessed January 2, 2019 with calculations completed by KPMG

As with other asset classes in their infancy, price volatilities will likely remain high for crypto-assets in the short term. Assuming increasing adoption of crypto-assets in the financial sector, these volatilities may reduce over time to levels typical of other asset types such as precious metals.

The impact of non-financial risks resulting from crypto-asset exposures are less clear. With the lack of historical operational risk experience worldwide and a low familiarity with the underlying technologies, financial institutions will likely face challenges in implementing internal policies and conducting regulatory requirements such as stress testing.

Q4 What additional factors affect the risk profile of different crypto-assets which are relevant in the context of determining a prudential treatment?

Q12 What are your views on the appropriate prudential treatment of these types of crypto-assets? Are there additional types of crypto-assets that would warrant a different treatment to the illustrative example outlined in this paper?

Crypto-assets have characteristics which make them distinct from other asset classes. In contrast to equities, bonds, and commodities whose value is derived from a promise of future payment or link to a physical good, crypto-asset characteristics can be attributed to the underlying technology, extent of adoption as a value store, or other features such as a stabilization mechanism.

Stablecoin crypto-assets for example, may present a hybrid value representing both the digital asset value and the underlying stabilization medium. In a similar manner to commodity derivatives, stablecoins backed by a physical good, a service, or a fiat currency may not warrant the same regulatory treatment as those without a stabilization mechanism.

Despite features which may reduce individual exposure risk, a good starting point is a uniform regulatory framework for crypto-assets. Special treatment on a feature by feature or characteristic by characteristic basis may then be introduced.

Q10 What further supervisory measures could be considered in specifying a potential prudential treatment for crypto-assets?

Specific sub types of crypto-assets, such as those backed by fiat currency or another physical asset, may have a higher correlation to the reference asset than other crypto-assets.

Case study: As an example, PAX GOLD (PAXG) is a digital asset in which each token is backed 1:1 to one troy ounce (t oz) of gold. Gold is held in vaults by a custodian (Brinks) and is easily verifiable through regular audit. This asset's price mimics the underlying asset's market price at any given time. The crypto-asset characteristic traits for PAX Gold simply allow a more frictionless exchange medium with low transaction fees and rapid settlement.

A regulatory exemption would be prudent for assets that are "substantially similar" to their reference asset.