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How Acadia is assisting Crypto Firms with risk and capital management

By Scott Sobolewski, Partner – Acadia Quantitative Expert Services

Led by institutional investors trading futures in currencies such as bitcoin and ether, the cryptocurrency derivatives market has boomed in recent years, with some analysts estimating that notional volumes in crypto derivatives now total over $3 trillion USD. Historically, unregulated, non-US, offshore firms have led the bulk of initial product innovation in crypto derivatives. However, with the growing demand for crypto derivatives from institutional investors coupled with the recent implosions of FTX and other large crypto exchanges, we're starting to see many crypto-focused firms registering with US regulators as swap dealers and/or security-based swap dealers.

Building investor confidence is perhaps the top driver for cryptocurrency firms to become regulated. By becoming regulated, these firms are signaling to their clients that they are committed to operating in a transparent and compliant manner, as with any other large bank or asset manager trading significant volumes of derivatives. This may help to attract and retain more clients and increase trading volume, which can ultimately lead to continued business growth and development.

Becoming a registered swap dealer or security-based swap dealer is an important step towards demonstrating regulatory compliance as it requires firms to follow the standard market practices for capital management and derivatives collateralization. To comply with these US swap dealer regulations, firms must implement a forward-looking collateral management process that ensures they post and receive sufficient margin to cover any losses that may occur in their derivative trading activities. Layering in additional monitoring programs will be crucial to allow firms to implement a process to ensure they are adequately capitalized at all times based on their aggregated market and credit risk exposures.

Acadia is a leading post-trade financial services firm that has significant expertise in the areas of derivatives risk management, capital management, and collateralization. Through our Quantitative Services consultancy business, we are currently working with several cryptocurrency firms to help them navigate their compliance with US swap dealer requirements. This involves identifying the optimal margin approach (e.g. SIMM™ vs. Grid) and capital approach (standardized vs. model-based), documenting and validating models used for margin and capital calculation, and facilitating approval of margin and capital models by relevant regulators.

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Acadia also hosts a daily calculation platform that models cryptocurrency derivatives such as forwards and options as an outsourced solution for clients. Acadia can calculate margin requirements on clients' behalf using both the ISDA SIMM™ and standardized Grid methodologies (which are the two most common approaches for calculating initial margin in non-cleared derivatives markets), and also facilitate the issuance, response, and movement of margin calls. The same hosted services platform also supports daily calculation of market and credit risk capital requirements under both model-based and standardized capital approaches.

With these capabilities, Acadia is well-positioned to meet cryptocurrency firms' specialized needs and help them comply with the requirements of becoming a registered swap dealer and/or security-based swap dealer. Our expertise in coaching aspiring swap dealers across all asset types through the registration and model approval process, combined with their market-leading derivatives valuation and collateralization platform, makes us an ideal partner for crypto firms. Additionally, Acadia can offer paid Proof-of-Concept services that allow firms to compare the ISDA SIMM™ and Grid methodologies for calculating margin, and/or standardized vs. model-based approaches for capital, helping them to make informed decisions about which approach is best for their particular trading strategy.

We believe the growth of the cryptocurrency derivatives market and the recent failures of crypto-focused exchanges and banks have led to an increased demand for greater financial regulation. Many crypto firms are looking to become registered swap dealers immediately in anticipation of this increasing regulatory scrutiny, in order to provide their clients with greater confidence in their capital management and collateralization practices.

About Scott Sobolewski

Scott is a risk and finance professional specializing in capital planning, stress testing, derivatives pricing, and model development at large US banks. He advises financial institutions on risk management and regulatory compliance matters, helping clients accelerate development timelines and achieve high-value institutional objectives. Scott has extensive experience meeting Dodd Frank deliverables and managing regulatory relationships with the Federal Reserve, OCC, FDIC, and others through prior roles at Citigroup and Santander US. He holds a B.A. in Mathematics and Economics with Honors from Williams College, as well as active Chartered Financial Analyst (CFA) and Certificate in Quantitative Finance (CQF) qualifications.