



Cash Is King— Even in Crypto

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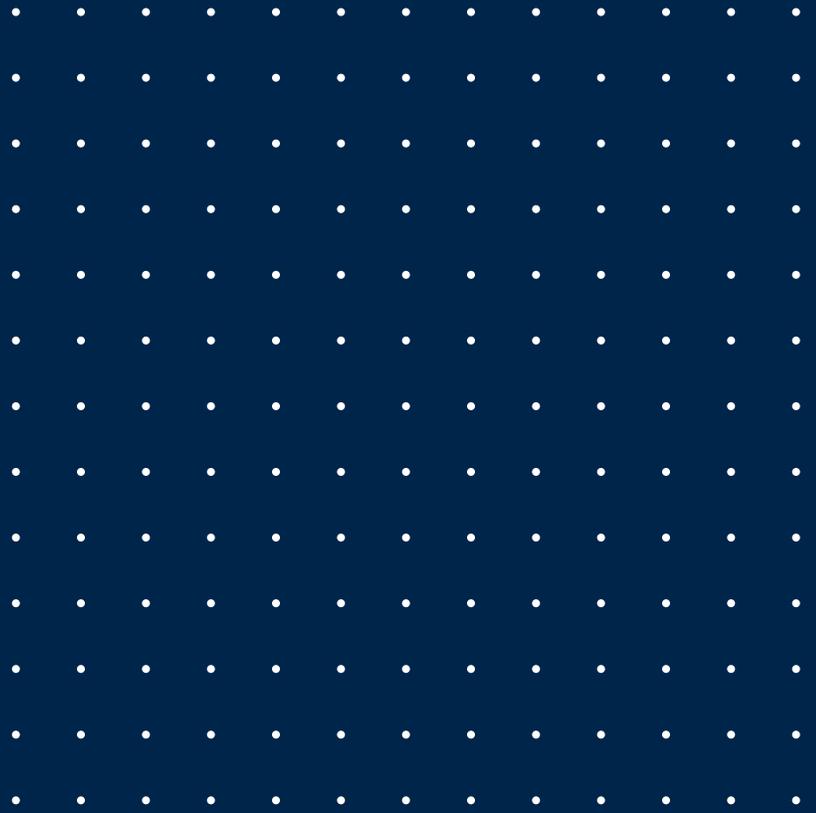
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INTELLIGENCE THAT WORKS





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Summary

For most people and companies, “Cash is king.” Having liquidity helps aid some basic necessities, at home and for companies small and large. As Fintech continues to evolve, innovators have found additional ways to blend crypto technology with lending to facilitate alternative means of liquidity.

In the simplest form, the process is as follows: if you own a cryptocurrency and need liquidity in the short term, you can borrow against your cryptocurrency used as collateral without having to sell your current position. Pioneers in the crypto lending space have uncovered many opportunities for investors and borrowers, but regulation has not kept up. What comes next in this market likely will be a blend of more innovators, investors, and regulations. Lending will be a natural extension and a key component of broad acceptance.

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Growth to \$2.3 trillion in the past five years

Over the last five years, cryptocurrencies have sprung up across all corners of financial services. As of January 2022, there were nearly 10,000 active crypto coins and tokens with a combined market capitalization of over \$2.3 trillion.¹ Cryptocurrencies serve many different purposes, providing users with the ability to be involved directly in the development of new finance technologies, facilitate decentralized finance transactions on blockchain, and invest and speculate on future crypto price appreciation and industry growth. With a large market capitalization, markets and services have developed for people to lend and borrow against these assets much as they would with traditional fiat currency.

¹ Statista, “Number of cryptocurrencies worldwide from 2013 to February 2022.” <https://www.statista.com/statistics/863917/number-crypto-coins-tokens/>

Figure 1. Cryptocurrency Growth in Participants and Capitalization Since 2017^{1,2}



At its simplest level, cryptocurrency is a digital or virtual currency created and secured by cryptography. This reliance on cryptography provides a level of transparency and security, making it nearly impossible to counterfeit or double-spend. This is a very important feature for a facilitator of digital transactions.

Cryptocurrency transactions are recorded on a blockchain. A blockchain is an open, permanent record of transactions that have occurred. The public nature of a blockchain means that all transactions are independently verified, allowing for consensus that the digital transaction that took place actually occurred.

Crypto.com estimates that there were over 295 million global crypto owners by the end of 2021, up from 106 million at the end of 2020.³ While cryptocurrency eventually may evolve into “money” in the truest sense of the word and act as a medium of exchange, store of value, and unit of account, today it is still not widely accepted or used commonly in everyday life. Most people treat cryptocurrency primarily as an alternative investment class, largely uncorrelated with stocks, bonds, or other world currencies. Individuals desire its financial systems and tools to be similar to the existing fiat currency infrastructure. They want the ability to borrow and leverage cryptocurrency holdings, use options to manage risk and speculate on cryptocurrencies, and lend against existing assets.

² Statista, “Crypto total market cap 2010 to 2022.” <https://www.statista.com/statistics/730876/cryptocurrency-market-value/>

³ crypto.com, Crypto Market Sizing: Global Crypto Owners Reaching 300M (January 20, 2022). https://assets.ctfassets.net/f942jmx/5i8TeN1QYJDjn82pSuZB5S/85c7c9393f3ee67e456ec780f9bf11e3/Cryptodotcom_Crypto_Market_Sizing_Jan2022.pdf

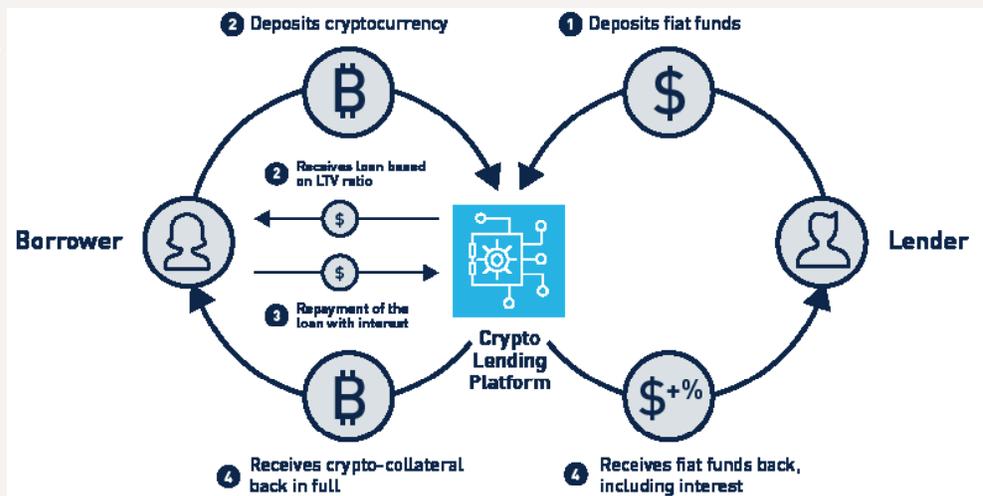
Crypto lending and the basics

Cryptocurrency lending first emerged in 2017. Since then, many companies have emerged focused on facilitating loan transactions backed by cryptocurrency. The largest of these companies include BlockFi, Celsius, Abra, Nexo, and Binance. A cryptocurrency loan can be made in either fiat currency or in cryptocurrency and is typically collateralized by existing crypto holdings.

How does borrowing a crypto loan work in its basic form?

1. The lender deposits fiat currency into the Decentralized Finance (DeFi) lending platform.
2. The borrower deposits crypto assets into the DeFi lending platform as collateral and obtains a loan. The loan terms and conditions are highly dependent on loan to value (LTV) of the crypto asset: the lower loan to value, the lower the interest rate payments.
3. The borrower repays the loan with interest. Interest payments are made to the lender.
4. Upon repayment of principal, posted collateral is returned to the borrower. The lender's original loan amount is repaid in full along with interest.

Figure 2. How Crypto Loans Work⁴



With the volatility of cryptocurrency, low LTV ratios are typical; most lenders typically do not exceed 50 percent LTV. Margin calls are another feature of crypto lending. Lenders can take possession of the underlying cryptocurrency if margin demands are not satisfied by posting additional collateral or paying down the existing loan; forced liquidations may occur.

⁴ Blockchain Simplified, *DeFi based Crypto Loans, Explained!* (February 19, 2021). [https://medium.com/@blockchain_simplified/defi-based-crypto-loans-explained-85e40cd485c9#:~:text=1\)%20As%20simple%20as%20it, his%20crypto%20assets%20as%20collateral.&text=Similar%20to%20a%20traditional%20loan,pays%20EMIs%20to%20the%20lender.](https://medium.com/@blockchain_simplified/defi-based-crypto-loans-explained-85e40cd485c9#:~:text=1)%20As%20simple%20as%20it, his%20crypto%20assets%20as%20collateral.&text=Similar%20to%20a%20traditional%20loan,pays%20EMIs%20to%20the%20lender.)

Figure 3 highlights the size of the major crypto lenders.

The market is larger than most would have expected. Assets under management for BlockFi, Celsius, Abra, and Nexo combined exceed \$43 billion.

Lending yields can exceed 8 percent to 10 percent for USD Coin or stablecoins.

Borrowing rates for LTVs of 50 percent range from ~9 percent to ~10 percent and in some cases higher.

Figure 3. Platform Participants, Lending Yields, and Borrowing Costs⁵

CRYPTO LENDING PLATFORM – OVERVIEW				
	BlockFi	Celsius	Abra	Nexo
Processed Loans	N/A	\$8.2B	\$7B	\$50B+
Members/Active Users	1M+	2M	~2M	3.5M
Assets	\$10B	\$19.7B	~\$1.5B	\$12B

CRYPTO LENDING YIELDS				
	BlockFi	Celsius	Abra	Nexo
Bitcoin	4.5%	6.3%	3.2%	4.0%
Ether	0.25%	3.3%	3.7%	4.0%
Tether (Stablecoin)	9.5%	10.0%	9.0%	10.0%
USD Coin (Stablecoin)	8.0%	10.0%	8.0%	8.0%

CRYPTO BORROWING COSTS				
	BlockFi	Celsius	Abra	Nexo
Loan Amount	10,000	1,000	Various	Up to \$2M
Collateral (examples)	BTC, ETH, LTC	BTC	BTC, ETH	BTC, ETH, LTC
Loan Term	1 Year	1 Year	1 Year	1 Year
Rate				
LTV: 20 to 25%	4.50%	1.00%	3.85%	Varies Based on # of NEXO Tokens held: 6.9% - 13.9%
LTV: 33%	7.90%	6.95%	6.75%	
LTV 50%	9.75%	8.95%	9.95%	

⁵ Sourced from companies' websites: BlockFi (<https://blockfi.com/>), Celsius (<https://celsius.network/>), Abra (<https://www.abra.com/>), Nexo (<https://nexo.io/>); and Daren Fonda, "Lending Your Crypto Could Generate Attractive Yields. But How Safe Is It?" Barron's (updated December 12, 2021). <https://www.barrons.com/articles/crypto-lending-yields-51639123201>

Current regulatory framework

Unlike traditional lending, cryptocurrency lending is not regulated by governments. The existing fiat currency regulatory infrastructure was developed over decades, usually as a reaction to past events. The Great Depression and failed banks led to financial disclosures and FDIC insurance. The Great Recession led to the Dodd-Frank Act, which resulted in fair value accounting and changes to capital requirements. Cryptocurrency lending is new and has an evolving regulatory overlay. Governments around the world are starting to exert control over crypto lending and cryptocurrencies.⁶

Governments have yet to decide if cryptocurrencies are securities, money, collectibles, or other assets. This definition will be important in developing the legal framework that will govern future market innovation and acceptance.

Governments have yet to decide if cryptocurrencies are securities, money, collectibles, or other assets. This definition will be important in developing the legal framework that will govern future market innovation and acceptance. Without clear government guidance on what cryptocurrency is and which regulations should exist, litigation is reduced to traditional contract law. From a legal and disclosure standpoint, crypto investors and those lending and borrowing crypto are being treated more like accredited investors; however, many individuals involved in crypto are retail investors with less investing experience. In fact, many crypto projects are being designed explicitly to avoid securities laws. Future regulations that will try to address these ambiguities could include disclosure requirements, leverage limits, liquidity requirements, tax and reporting requirements, and possibly restrictions on certain types of crypto transactions altogether.

Without additional regulation and protections, borrowers and lenders face many risks in crypto lending. For example:

- Crypto deposits are not insured by the FDIC
- Platforms are subject to outages and disruptions that can prevent the execution of transactions
- Funds held can be hacked and stolen, and they cannot be recovered once they are gone
- Cryptocurrencies have experienced significant volatility, which can trigger margin calls
- Potential for future restrictive regulations

⁶ Our BRG colleague Dustin Palmer recently wrote an article addressing the increased regulatory focus that cryptocurrencies and exchanges face around the world. See Dustin Palmer, "Cryptocurrencies and Exchanges Will Face Increased Regulatory Focus," *ABA Banking Journal* (September 30, 2021). <https://bankingjournal.aba.com/2021/09/cryptocurrencies-and-exchanges-will-face-increased-regulatory-focus/>

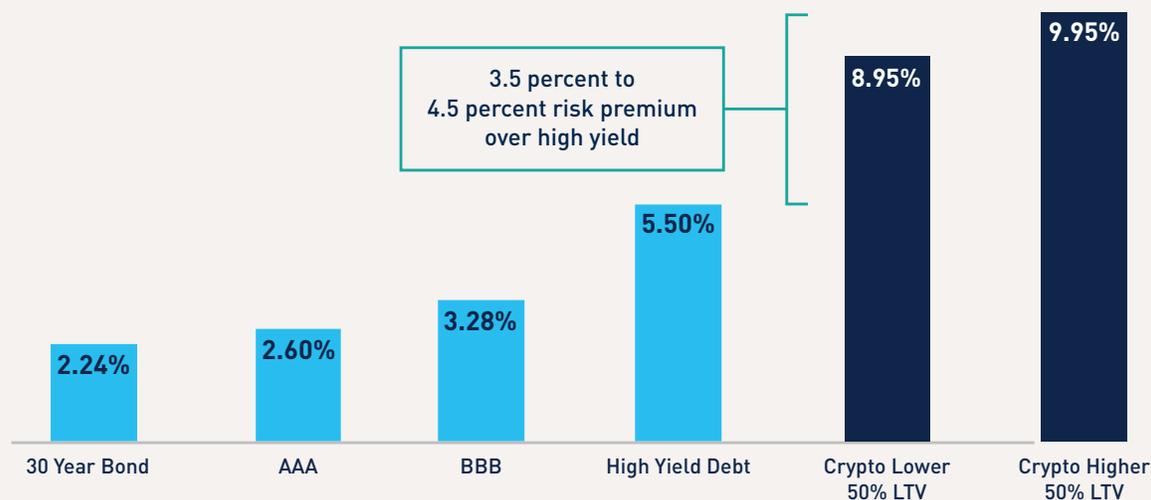
Why are yields in crypto lending much higher than in other industries?

The blockchain ecosystem requires computing power, hardware, electricity, occupancy, and security costs, which most often are provided by cryptocurrency “miners.” Miners are rewarded with cryptocurrency in exchange for providing the computing power necessary to maintain the blockchain network. The influx of rewarded tokens to the existing circulating supply can dilute the value of existing crypto should there be insufficient demand to absorb the added supply.

Other companies may charge high transaction fees for exchanging one form of crypto into another, similar to a broker processing a fiat foreign currency exchange. These transaction fees pass down the cost of “gas fees” to the consumer only if the underlying cryptocurrency requires such a fee to operate within the network. For example, a “gas fee” is required to perform any function within the Ethereum blockchain and can be significant, reaching over 0.05 ETH per transaction (i.e., \$150) at times based on the demand. Converting to proof of stake mining, would result in lower energy consumption by up to 99.95 percent according to the Ethereum Foundation⁷ and by extension, lower fees. Additionally, alternative coins such as Avax claim to be green by utilizing carbon offsets and charging low gas fees.

Crypto lending offers a way to offset crypto costs and earn a rate of return from otherwise non-income-producing assets. This rate of return can be lucrative depending on the specific type of token, exceeding even high-yield debt. The crypto risk premium versus high-yield debt can be more than 350 to 450 basis points.

Figure 4. Crypto Risk Premium versus High-Yield Bonds⁸



⁷ Carl Beekhuizen, “Ethereum’s energy usage will soon decrease by ~99.95%,” Ethereum Foundation Blog (May18, 2021). https://blog.ethereum.org/2021/05/18/country-power-no-more/?utm_source=morning_brew

⁸ Federal Reserve Bank of St. Louis, Moody’s Seasoned Aaa Corporate Bond Yield (AAA), FRED. <https://fred.stlouisfed.org/series/AAA> (first four columns)

The Horizon: Innovation, regulation, expansion

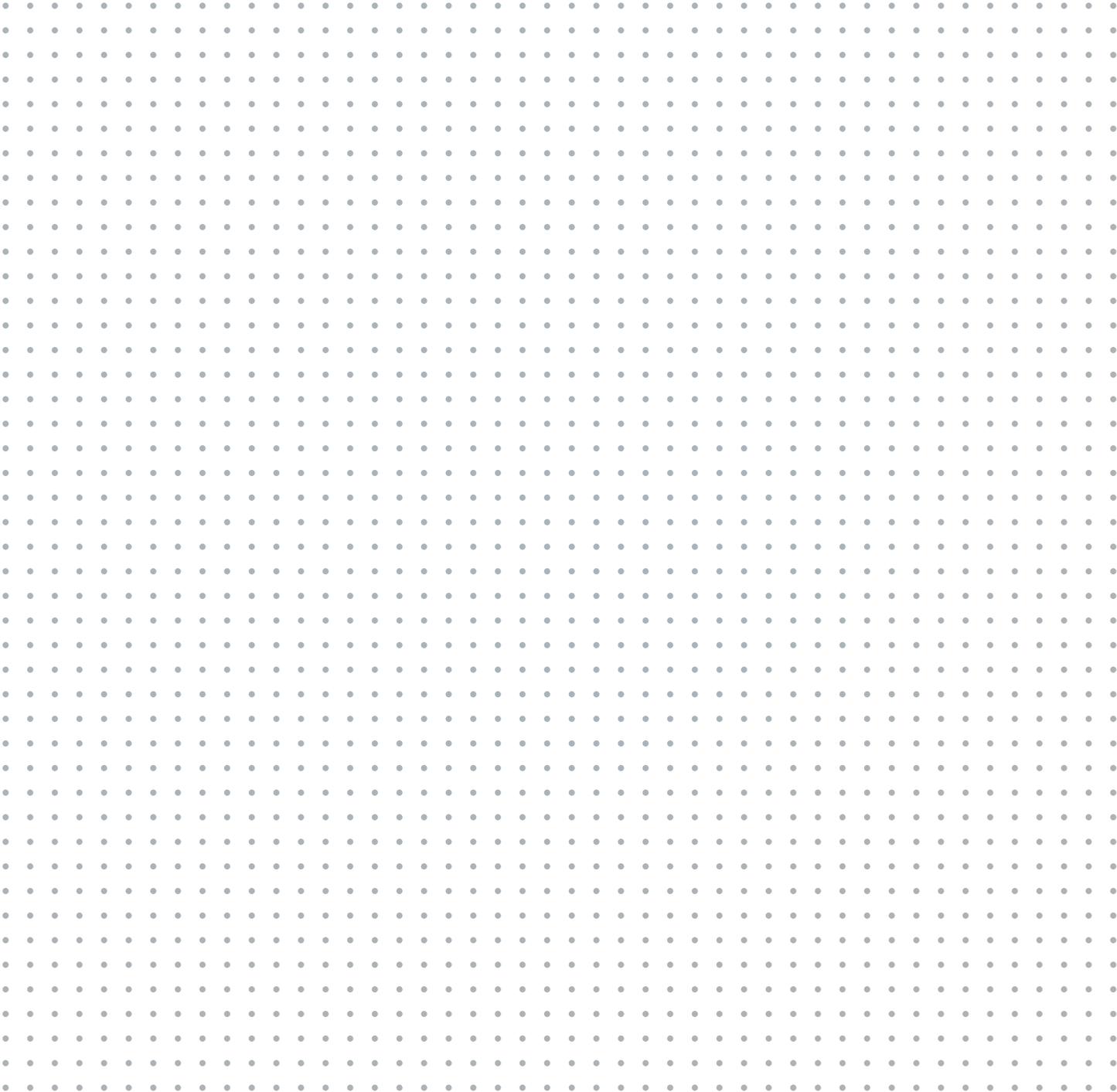
Innovation is important provided the risks and opportunities are made transparent. Banks and other lenders have opportunities to enter the crypto lending space, but must do so knowing that the market will evolve significantly in the next five years. The crypto lending industry is still a nascent industry; ample first-mover advantages are available for institutions that are open to entering the space. Throughout the history of financial services, first movers have been able to develop a foothold in their markets and gain technological and marketing advantages over competition, dominating conversation, building scale, and obtaining key talent. Whether it was PayPal in 1998 in the online payment processing space, WeChat in 2011 in social network payment processing, or even Salomon Brothers in the 1980s developing securitizations and bond market innovation, first movers typically are rewarded for the risks they take creating systems, infrastructure, and new innovation.

These opportunities exist for companies now to gain a meaningful advantage in the world of cryptocurrency and crypto lending. But entering this market will require addressing a few questions:

Key crypto lending questions

- How will the lender develop risk management guidelines for cryptocurrency?
- What voluntary disclosures are necessary in the absence of federal and state regulations?
- How will regulatory changes, including the possible determination that cryptocurrencies are securities, impact the lending environment?
- How will a bank perfect a lien or take custody of cryptocurrency collateral?
- What lending products will be offered?
- What does the competition look like for crypto lending? Are crypto-focused customers interested in using a traditional bank?
- How will the government endorse crypto lending from regulated institutions?

BRG's Financial Institutions group has worked at the intersection of financial innovation and regulatory control since its inception. We understand the existing regulatory environment and how companies can anticipate future regulatory changes. Our risk management experts include ex-bank regulators, industry leaders, and experienced professionals. Our Corporate Finance group has worked with financial intuitions to develop cash and liquidity models, risk and sensitivity projections, and complex business plan scenarios to help companies make strategic lending and operating decisions across all sectors of financial services. We have experience in cryptocurrency and frequently help companies navigate complex and changing industry conditions.



About BRG

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