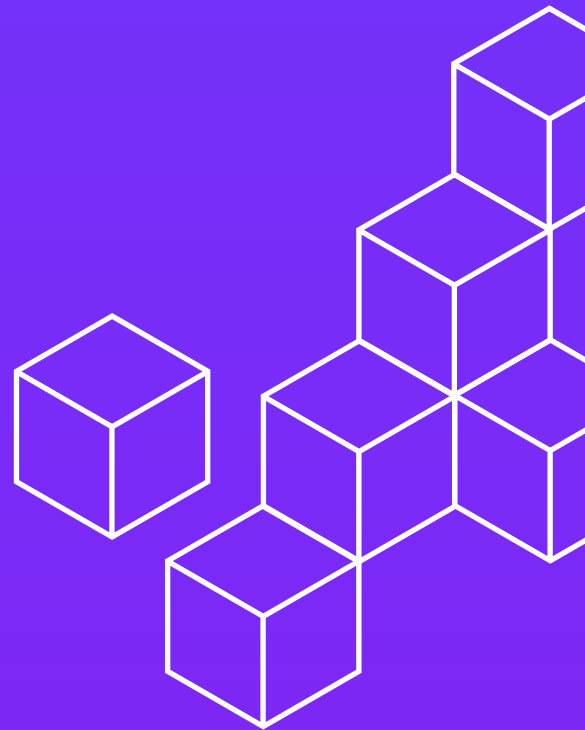


CUCRYPTO
REPORT

Fall 2022

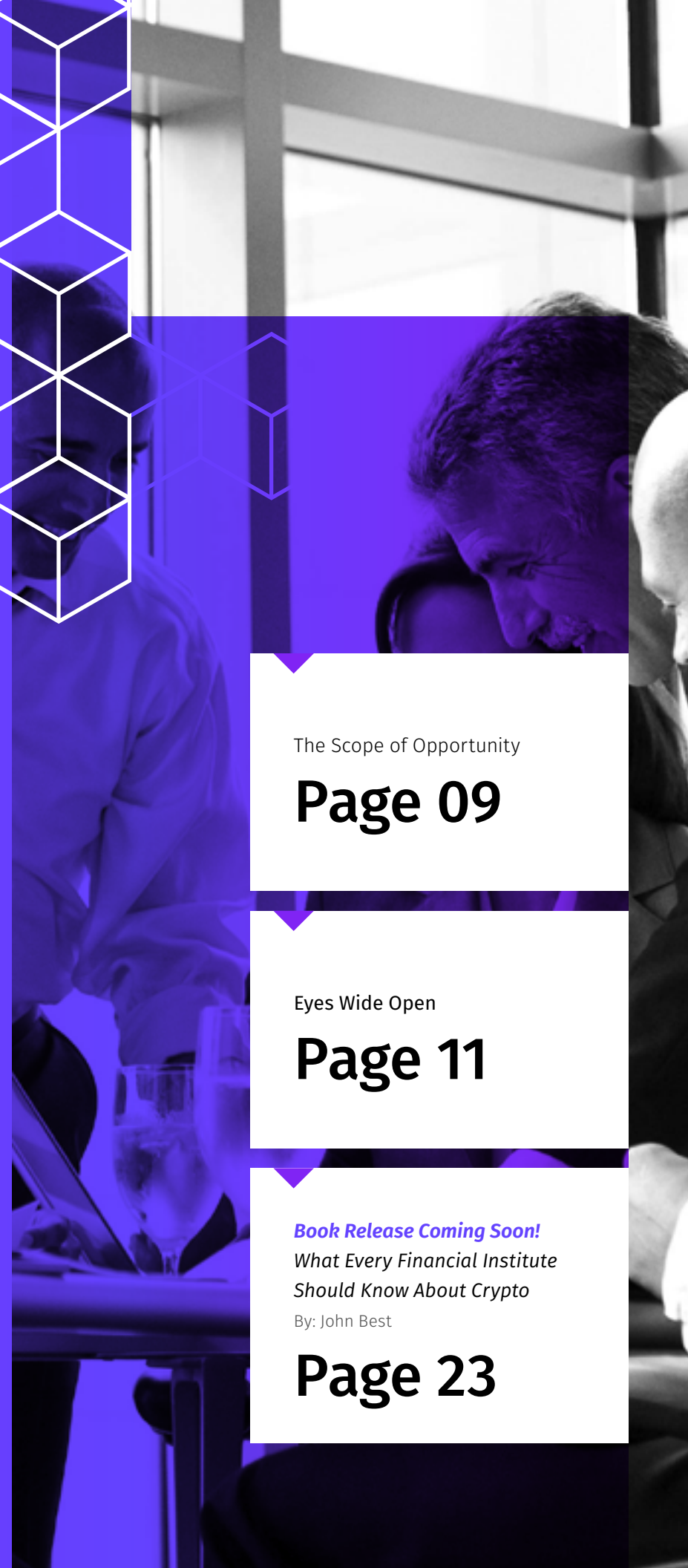
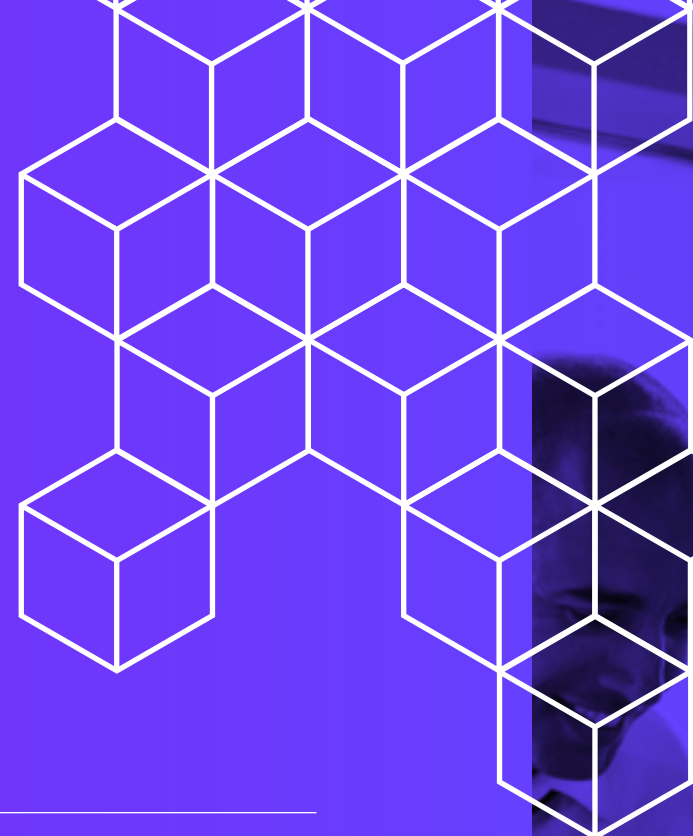
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Best Innovation Group
and The Innovation Club



Contents

CU Crypto Report 2022

I. Company Intro & Executive Summary	02
II. A message from John Best	03
III. What is Crypto and how does it work?	05
IV. Exchanges Used to Buy and Sell	07
V. Top 10 Cryptocurrencies by Market Cap	08
VI. Where Credit Unions Fit In	09
VII. Daily Transaction Prices Vs. Daily Bitcoin Prices	14
VIII. Running Aggregate of Transactions	13
IX. Daily Bitcoin Prices vs. Daily Ethereum Prices	15
X. Top 10 Exchanges by Amount	17
XI. Who, What, Why.	19
XII. A message from Glen Sarvady	21



The Scope of Opportunity

Page 09

Eyes Wide Open

Page 11

Book Release Coming Soon!
*What Every Financial Institute
Should Know About Crypto*

By: John Best

Page 23

Company Introduction & Executive summary



Best Innovation Group

Best Innovation Group, Inc is a financial technology innovation and development company catering to the credit union industry. We invite you to join the hundreds of financial institutions that have already worked with our team of experts in designing technology solutions to fit their growing needs.

The Innovation Club

The Innovation Club is a selected group of thought leaders throughout the Fintech industry that come together several times each year to brainstorm, collaborate and discuss the next big moves in the fintech industry. They engage in educational and innovative projects using new technology to solve some of today's most pressing issues for the financial services industry. From robotic process automation to distributed ledger, conversational banking, and machine learning, the Innovation Club members are on the leading edge of solving tomorrow's problems today.

Best Innovation Group and The Innovation Club have completed our first annual credit union survey on trends in crypto. It was completed on September 20th and follows our research starting in January of 2022 through August of 2022.

A message

From John Best, Best Innovation Group



“Not understanding Crypto and blockchain and working for a financial institution is like not understanding streaming and working for Blockbuster”

- John Best, CEO, Best Innovation Group.

When we originally started this journey at BIG in January of 2021, we began with the notion that while people were doing this, it would be a small portion of credit union members. After tracking this behavior for almost 2 years we have discovered that the number of people actively joining the crypto movement has only increased. Furthermore, the increase wasn't just in the perceived demographic of a crypto enthusiast which, by and large, was assumed to be young techno savvy and affluent adults, it was, in fact, across all age groups, all ethnicities and transcended income levels. Crypto was making an impact right before our very eyes and through the power of data analytics we were able to watch it happen.

Once we realized that there was a trend playing out it became important for our clients and we believed for the industry to understand the motivation behind purchasing what essentially had been branded fake money by the credit union

industry at large. This report represents the first step in that direction. Only by first understanding what is really happening can we really make an educated decision on what to do. Along the way the industry began to catch up with the members' desires and a few brave credit unions decided to create an offering that would become the start of their crypto currency services. These credit unions in the proud spirit of the industry have been more than forthcoming and have shared their experiences with anyone who will listen.

“...members who have purchased crypto via their credit union access the credit union digital services on average twice as many times as other members...”

Take for instance the story of UNIFY, Visions, and Idaho Central Credit Union. These institutions represent the tip of the spear with regard to crypto in the industry. They have each offered a service that allows their members to purchase Bitcoin

funded by their credit union accounts. Each has reported only positive results. For instance each credit union has reported that members who have purchased crypto via the credit union offering access the credit union digital services on average twice as many times as a member who is not involved in the crypto service. This means these members are more likely to see advertisements in the platform as well as use the digital services for their financial needs. They have also reported that unlike indirect products like auto loans, these members are far more likely to use the credit union for their other financial needs. Perhaps the most important aspect of the offering is that the members that have been surveyed about the offering have expressed that they are happy their credit union is a forward thinking institution.

These credit unions continually provide us with great data points and thankfully, due to the spirit of collaboration in our industry, are a great bellwether of what may become a carpe diem moment for the credit union industry. Still, there are many challenges to overcome, as we are still very early in this process. For instance, the offerings that these credit unions are providing only allow a member to purchase or sell bitcoin. They don't allow a member to transfer bitcoin to another bitcoin user, or to receive bitcoin from another bitcoin user. These services are essential for the very experienced crypto enthusiasts, and until they are in place, the credit union services will be seen as incomplete by the more crypto savvy members. Secondly, the current offerings are only around the Bitcoin platform and do not allow members to purchase other coins (at the time of this writing). During our interviews we have come to understand that the credit unions providing these services fully expect to continue to expand their offering until they completely resemble a fully functioning crypto exchange. Additionally, they believe this will likely be enough to motivate members using remote exchanges, such as Coinbase, to work directly with the credit unions. Will this be the case, only time will tell.

It is also worth noting that the matter of regulations around these offerings is still very murky, especially as the services grow to allow members to transfer in and out of the credit union using crypto? Will the destination accounts be subject to some sort of crypto version of OFAC? Will this lead to an increase in fraud, similar to what we have seen with all other new payment rails (Zelle, Venmo, etc)? As of this writing no one knows. The only thing we do know is that credit union members are using their accounts to buy crypto currencies, and that the number of members doing this is almost doubling every year.

What does this mean for you and your credit union? I believe it means thoughtfully exploring this new financial technology, documenting the learnings and sharing them with your peers. With that approach in mind here are some things you can do to get direct experience immediately.

1. Ask your friends and family, “Hey do you own any crypto?” If they say yes, try to understand why and how they went about purchasing it. Be curious.
2. Purchase a small amount of crypto using an exchange like Coinbase. For extra credit do it with a friend or coworker and practice transferring it to and from each other.
3. When you make your purchase note the entry in your credit union account history.
4. Purchase the ENS name for your credit union - Much like domain names there will be crypto name spaces. While this might not be mainstream yet, it may become important to own your name space. Many Credit Unions are still trying to get their actual domain name today. <https://ens.domains/>
5. Purchase your virtual property for your HQ or a branch. Virtual property and digital twinning are part of the crypto experience. Use some of your crypto currency and try to purchase the land on a site like <https://earth2.io>

What is Crypto and how does it work?

If you don't believe it or don't get it, I don't have the time to try to convince you, sorry.

- Satoshi Nakamoto

Don't worry, we will take the time to explain from a credit union's perspective...

Cryptocurrency, affectionately known as Crypto, is a type of digital currency that uses cryptography to secure and verify transactions. Like other forms of currency it can be exchanged for products and services online. By contrast, however, as an alternative currency, cryptocurrency is produced on a decentralized automated, publicly distributed ledger. This means that no one person controls the creation and use of the currency. Crypto units, created through a process referred to as mining, require significant technical knowledge and hardware resources.

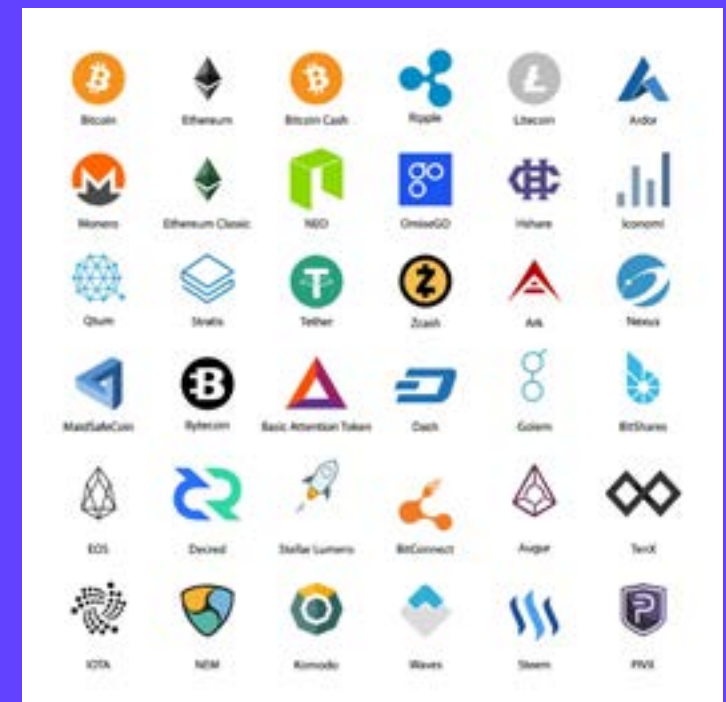
The individual units of cryptocurrencies are known as coins or tokens, depending on how they're used. Some cryptocurrencies are used as units of exchange for goods and services, others serve as stores of value, and some allow you to participate in specific software applications such as games and financial products. Many organizations have produced their own currencies which can only be used to purchase the products and services they provide. They can be likened to arcade tokens or casino chips that are swapped for actual money in order to obtain a product or service. Today there are over 20,000 such crypto currency coins available with the number growing each day.



Blockchain technology is the foundation of cryptos. The majority of cryptocurrencies use this technology to maintain a tamper-resistant record of transactions and track who owns what. It's a digital ledger distributed across a network of computers that verifies accounts, balances, and transactions. The appeal of blockchain technology is its safety. This decentralized ledger is immune to modification or manipulation by any one party and therefore protects from human error or from being stolen by criminals. Blockchains were used to address issues with previous attempts to create purely digital currencies by preventing people from copying their holdings and attempting to spend them twice. Additionally, they function without a monetary authority such as a central bank, unlike traditional fiat currencies.

Today there are over 20,000 crypto coins

with the number growing each day.



What is Crypto and how does it work? *(continued)*

Bitcoin, the biggest cryptocurrency by market capitalization, was created in early 2009 by Satoshi Nakamoto, an anonymous pseudonym. The creator set a cap on quantity in order to create scarcity which in turn creates value as more and more coins are mined. Its limited supply and high price are explained by the fact that only 21 million bitcoins will ever be created. Around 19 million bitcoins have already been produced, leaving 2 million for future production. It is anticipated that the last bitcoins will be mined by 2140, as experts forecast.

Since most people don't have the technical savvy to mine their own crypto, how do they acquire these currencies? Most cryptos are purchased through exchanges. An exchange is a platform where you can buy and sell cryptocurrency. You can use exchanges to trade one cryptocurrency for another—for example, Bitcoin for Litecoin—or to purchase crypto with regular currency, such as the U.S. dollar. Exchanges display current cryptocurrency pricing information. You can also convert cryptocurrencies back into the U.S. dollar or other currencies on an exchange in order to keep your money in your account (if you want to buy back into crypto later). To withdraw your funds to your regular bank account, you may convert or withdraw your cryptocurrency.

Which of the following cryptocurrency exchanges have you used in the past year to buy or sell crypto?

Overview 2021/2022		2021	2022
1.	Coinbase	66%	56%
2.	Binance	27%	27%
3.	Gemini	22%	25%
4.	KuCoin	15%	23%
5.	Kraken	20%	22%
6.	FTX	N/A	21%
7.	Bitfinex	15%	19%
8.	Bithumb	12%	19%
9.	Huobi	13%	18%
10.	Bitstamp	14%	18%
11.	Gate.io	10%	17%
12.	Other	13%	15%

Data source: The Motley Fool, www.fool.com
The Ascent survey of 2,000 American adults, conducted May 6, 2021 and May 25, 2022.

The top 10 cryptocurrencies by Market Cap as of December 20, 2022:

Bitcoin (BTC)



Ethereum (ETH)



Tether (USDT)



U.S. Dollar Coin (USDC)



Binance Coin (BNB)



Binance USD (BUSD)



XRP (XRP)



Dogecoin (DOGE)



Cardano (ADA)



Polygon (MATIC)



Data source: <https://www.forbes.com/advisor/investing/cryptocurrency/top-10-cryptocurrencies/>

Where Credit Unions fit in.

Members could be getting these exchange services directly from their credit union.



Members could be getting these exchange services directly from their credit union. Many credit unions are already providing cryptocurrency to their members through technology driven financial service firms. There are many leading technology and financial service companies that specialize in Bitcoin. These platforms comply with the highest standards in security, regulatory, and operational requirements. If members invest in Bitcoin through a credit union, they can be assured that their investment is safeguarded.



01. Offer crypto services to members as a way to stay competitive with other financial institutions.

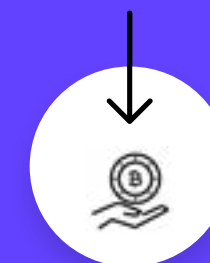
02. Attract new members and retain existing members.

03. Keep pace with the latest technology trends.

Simply put,

Crypto is an opportunity to help credit unions, and here's how

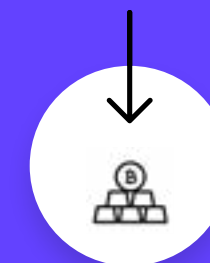
04.



Offer their members an easy way to get started with cryptocurrencies.

Get Started

05.



Empower their members to use their credit union's online portal to access their crypto accounts and transactions.

Empower

The scope of opportunity

The forefront of innovation

Forward thinking credit unions are always on the forefront of innovation, whether it be introducing new products and services or reevaluating existing ones. Credit unions seek new and innovative ways to help their members achieve their financial objectives. Whether cryptocurrency is offered or not, it is a prime example of innovation in the financial services business and should not be ignored.

Credit Unions + Fintech



01.



21% of American adults, roughly 54 million people, say they own or have previously owned cryptocurrency.

02.



74% of that group, roughly 40 million Americans, invested in crypto for the first time in the last two years.

03.



41% who have never owned crypto, about 22 million Americans, say they are likely to buy crypto.

04.



The number of Americans that own crypto is now on par with the number of Americans who own stocks.

Molding the financial Landscape

Credit Unions have been partnering with fintechs to offer their members a variety of crypto investing options. With many people still on the sidelines, there are a number of reasons to believe that the crypto market will continue to grow and become a larger part of the financial landscape.



Other Types of Investments Owned Among Crypto Investors

	2021	2022
1. Stocks	65%	52%
2. Retirement Account	51%	36%
3. NFTs	21%	35%
4. Mutual Funds	43%	32%
5. Bonds	36%	29%
6. ETFs	27%	29%
7. Commodities	21%	22%
8. None of the Above	8%	11%
9. Other	1%	9%

01. Daily Transactions

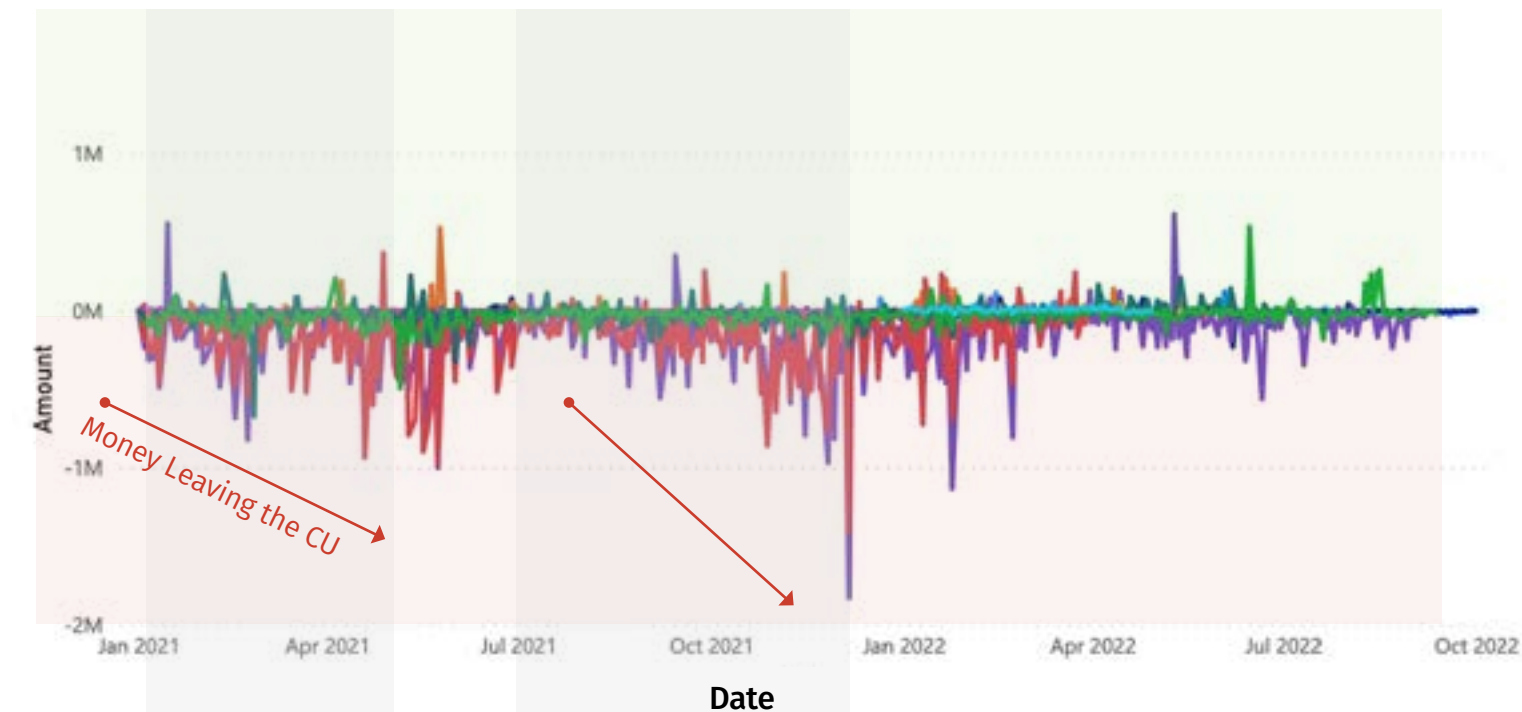
Eyes wide open..

Here's our analysis of the data provided by our participants

Credit Unions have been offering savings accounts for years, but members are noticing how little they are actually earning. As a result, they are exploring other options. This report shows that members are clearly looking for alternative higher yield financial instruments and investing their money into Crypto appears to be one such avenue. In order to evaluate the current impact of Crypto on the Credit Union Industry we collected transaction data starting on January 1, 2021, from 12 credit unions of different sizes across different parts of the United States (Arizona, California, Idaho, Iowa, New York, Pennsylvania, Tennessee, Virginia, and Wisconsin).

Key Data Points

1. The center line represents the break even point between credit union debits and credits on all crypto related transactions.
2. Money coming into the credit union is depicted by data points above the center line. These data points represent the sale of crypto back into US currency and transferred from an exchange to the credit union.
3. Money leaving the credit unions is depicted by data points falling below the center line. These data points represent the purchase of crypto through member withdrawals.
4. Visually it is easy to see that across the board all credit unions have more money leaving than coming in.
5. We have also provided a graph of Bitcoin to determine the impact of sudden rises and drops of Bitcoin's price on the credit union member's debits and credits.
6. As the price of Bitcoin increases the debits from the credit union also increase as members, attempting to catch the price wave upward, invest more and more into crypto
7. As the price of Bitcoin decreases the credits from the credit union also increase as members are either collecting their gains or are decreasing their positions in order to stem the losses.

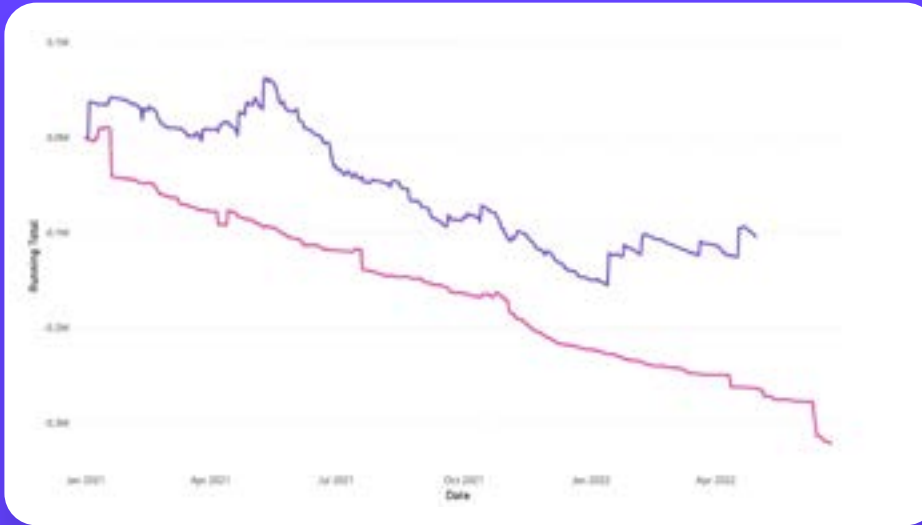


02. Daily Bitcoin Prices

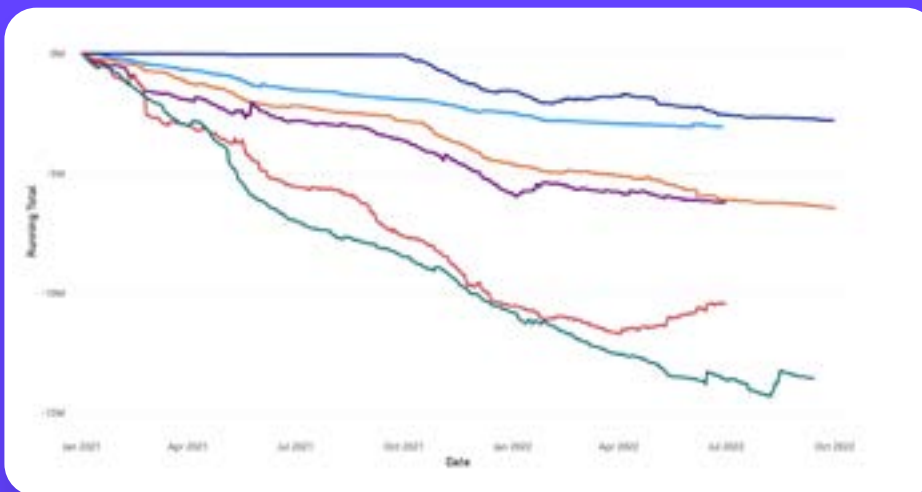
1. These charts show the running aggregate of crypto transactions for participating credit unions from January of 2021 till October of 2022.
2. Notice that the trend of members transactions withdrawn from the credit union affects all small, medium and large credit unions alike.
3. Collectively these 12 credit unions have had almost \$200 million dollars leave the credit union. Note: not all credit unions provided the data from the full time period so the number is actually well over \$200 million dollars.

Running Aggregate of Transactions

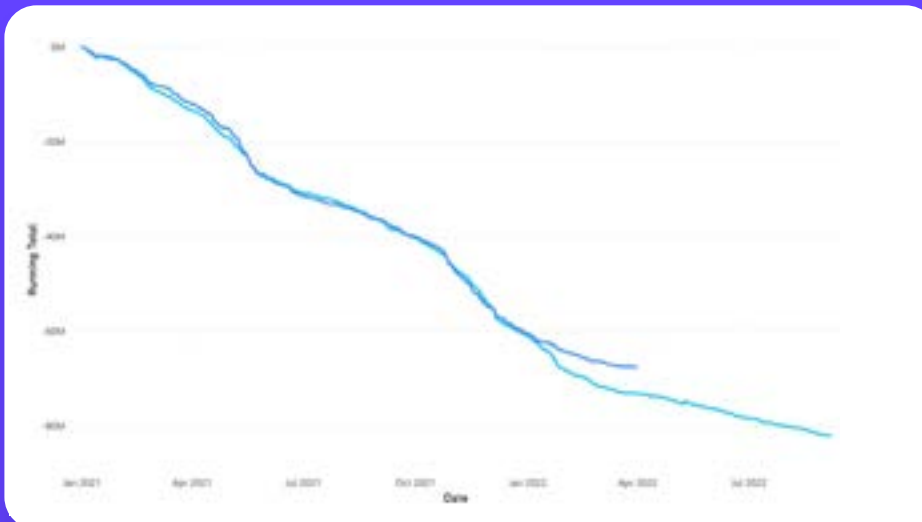
Small Credit Unions



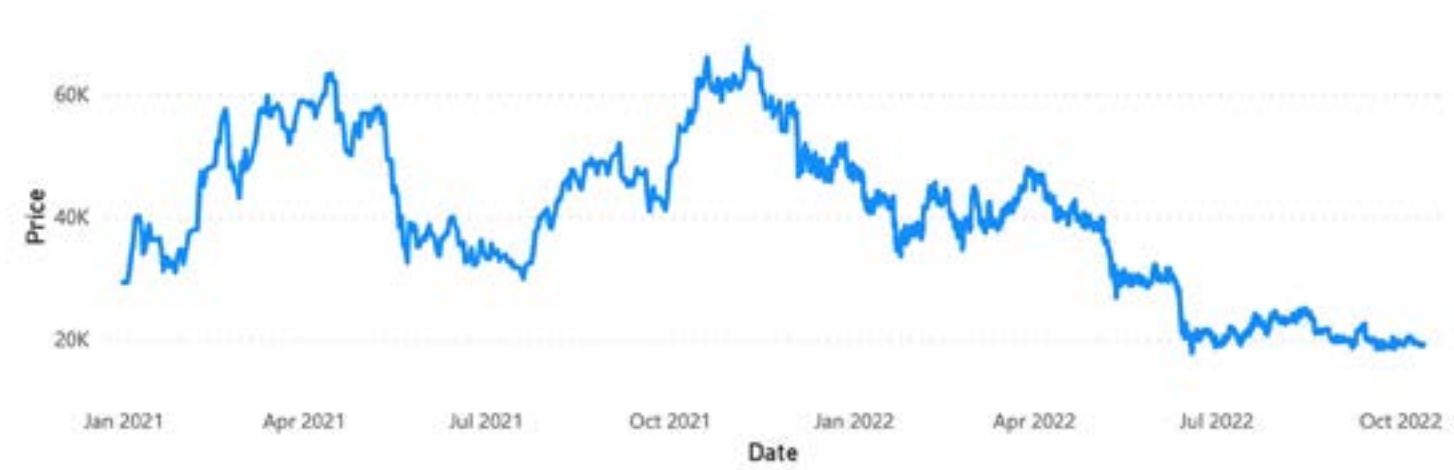
Medium Credit Unions



Large Credit Unions

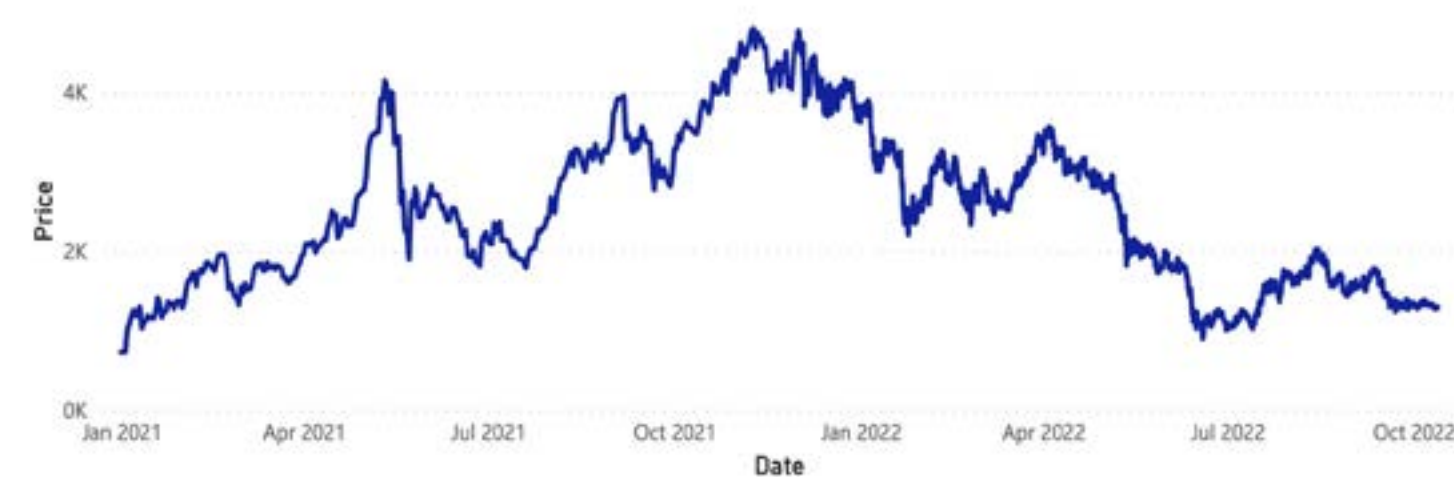


Bitcoin Daily Prices



By far Bitcoin and Ethereum are the largest players in the Crypto Market. While there are some variations, the peaks and valleys of price points are very similar.

Ethereum Daily Prices



Top 10 Exchanges by Volume

Crypto Report Participants

Coinbase



Webull*



Voyage



Gemini



Crypto.com



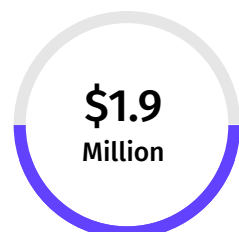
Uphold



BlockFI



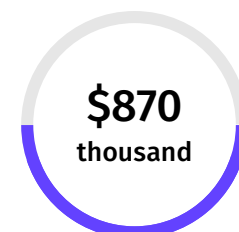
MoonPay



Binance



Bittrex Inc



Data source: Crypto Report Participants
Data collection conducted January 1, 2022 and October 1, 2022.



» Here we see the top 10 exchanges by transaction volume for CU Crypto Report credit union participants.

» Note that far and away the biggest exchange is Coinbase.

» * While Webull came in second, we must keep in mind that this is not purely a crypto currency exchange in that it also offers a full array of Stocks and ETFs. We have no way of knowing how much of this number is actually Crypto sales.

» This same issue is also present in services like Robinhood that also offer more than just Crypto services to its investors.

» To complicate matters further companies like Paypal and Venmo have also entered the Crypto space. As time goes on it is going to be more and more difficult to differentiate strictly through transaction logs what is likely to be a crypto purchase over a purchase of some other kind.

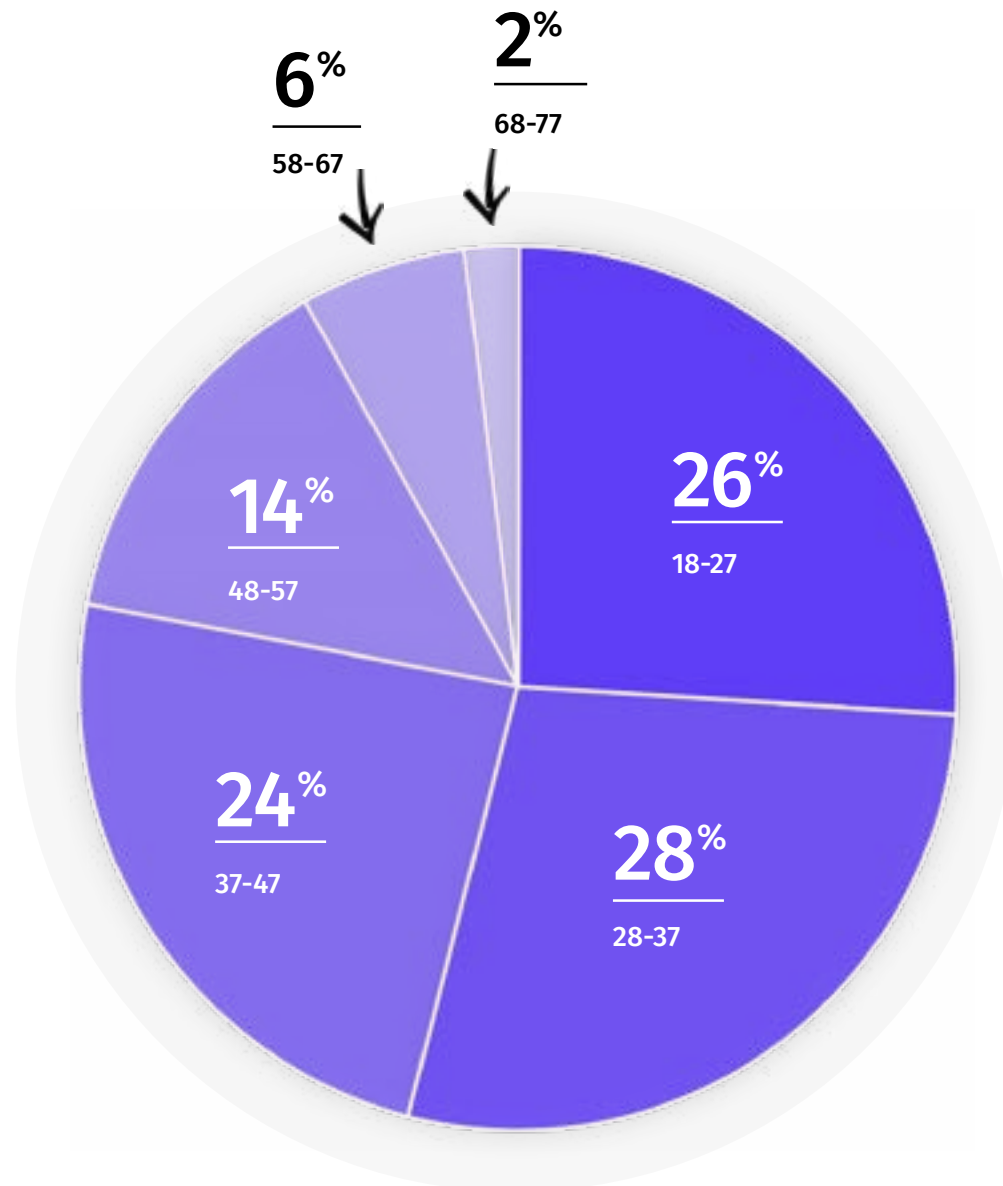
» With the growing number of ways that Crypto can be purchased we are confident that numbers presented here are very conservative and that the true picture of Crypto's impact on the credit unions is far larger than we have reported here.

* Webull is not purely a crypto currency exchange. It also offers stock and ETFs.

Who is using crypto?

One of our contributing credit unions took their data collection one step further and provided an age demographic breakdown. Their data supports the idea that it is not just young tech savvy adults that are getting involved.

1. The first three age brackets are pretty evenly distributed: 78% of members engaged in crypto are between the ages of 28 and 47.
2. Another 14% fall in the 48 to 57 age bracket.
3. Leaving the remaining 8 of 58 and over.



Data source: Idaho Central Credit Union, Market: Idaho, Washington, Oregon from 2021 - 2022

How are they using crypto?

Reasons For Owning Crypto	2021	2022
As an investment	67%	53%
For fun or as a hobby	45%	40%
I believe it will replace standard currencies	34%	32%
To make secure payments	30%	31%
I like that it isn't government-controlled	29%	31%
To buy NFTs or make purchases in the metaverse	N/A*	29%
Other	2%	11%

Data source: The Motley Fool, www.fool.com
The Ascent Survey of 2,000 American adults, conducted May 6, 2021 and May 25, 2022. Data source: *Note: this was not an option in the 2021 survey.

What you should know.



Estimates of US crypto adoption vary widely. The President's Working Group placed it at 16% of adults; Most studies range from 10-25%

Although crypto's aggregate value has fallen by roughly 75% over the past year, The number of people owning/interested in owning has held steady



The top ten cryptocurrencies - out of nearly 20,000 - account for more than three-quarters of total value

PayPal and Venmo enable trading in only four cryptocurrencies (Bitcoin, Ethereum, Litecoin, Bitcoin Cash); With one exception, CUs that have launched offerings to date enable only Bitcoin



A message From Glen Sarvady, 154 Advisors



“The regulatory landscape will continue to evolve- and is a rare situation where CUs should be cheering greater oversight.”

- Glen Sarvady, Managing Principal, 154 Advisors

I consider myself to be a “crypto pragmatist”; I hold only small positions myself, primarily for educational purposes. My interest stems primarily from digital coins’ potential as a payment vehicle rather than an investment. Although my curiosity is also fueled by the underlying technology’s prospective uses, I’m neither a zealot nor a skeptic. If pressed I’d probably say I shade closer to the latter- which seems to make me a unique voice in the space.

As John already pointed out, credit unions have come to realize that a sizeable cross-section of their member base is already engaging with these digital assets. The reasons for CUs to explore a role in crypto extend well beyond preservation of deposit balances, however. Multiple studies have shown that Americans would prefer to manage their crypto holdings through their financial institutions- this is likely even more descriptive of the next wave of adopters.

Recent McKinsey research reveals that interest in crypto has remained steady even through 2022’s market turbulence. Notably, the “first mover” CUs who introduced crypto capabilities for their members in early 2022 have stayed the course, experiencing little if any adverse member reaction or wholesale redemptions. They also report greater engagement with these new and existing members.

The demographics of the “crypto curious” align on many dimensions with consumer segments favorably disposed to credit unions, and also offer a much-needed avenue to appeal to a younger member cohort. The NCUA’s relatively accommodating yet prudent stance on third party crypto partnerships offers a rare opportunity for the movement to advance its image as financial services innovators, countering their hopefully outdated stereotype as technology laggards.



We clearly remain in the early stages of this journey. The regulatory landscape will continue to evolve- and is a rare situation where CUs should be cheering greater oversight, disclosure requirements and guardrails. The recent turmoil eroding confidence in crypto exchanges demonstrates the value of

asset custody, and will NCUA guidance evolve on this topic? What third party partners offer the best long term path forward? These matters must be addressed in the not-too-distant future and as always credit unions’ collaborative superpowers will help us arrive at better answers.

“...Multiple studies have shown that Americans would prefer to manage their crypto holdings through their financial institutions- this is likely even more descriptive of the next wave of adopters...”

transparency and CUs’ “trusted agent” status. Moves toward greater regulation will undoubtedly accelerate; financial institutions have a significant head start and advantage in capabilities on that front.

Many other strategic questions remain as well: How many of the nearly 20,000 cryptocurrencies should credit unions make available to their members? What is the preferred model for digital

Meet Glen Sarvady

Glen Sarvady is a 25-year veteran of the payments and fintech spheres and Managing Principal of 154 Advisors, where he provides subject matter expertise to credit unions and early stage fintech firms. He co-hosts the BIGCast along with John Best and is a frequent speaker at CUNA and other industry events. Glen was also part of the startup team that launched the University of Pennsylvania Student’s Credit Union in 1987. He can be reached at glen.sarvady@154advisors.com.



Next Look

We are happy to announce that we will be continuing to monitor the crypto space and take an even deeper data dive in the upcoming year for an updated report in 2023. For current participants we will be sending new data points to collect and provide a new data schema. This report was made possible by the Innovation Club, a selected group of thought leaders throughout the Fintech industry that come together several times each year to brainstorm, collaborate and discuss the next big moves in the fintech industry. If you are interested in a front row seat to these types of discussions be sure to contact us through the Best Innovation Group website: <https://www.big-fintech.com>.

To participate in the next CU Crypto Report be sure to sign up at: <https://cucrypto.report>

Coming Soon!

What Every Financial Institution Should Know About Crypto

by John Best



Cryptocurrencies have the potential to revolutionize many aspects of the financial world. Institutions that take the time to understand how they can leverage crypto and related technologies will be ahead of the curve.

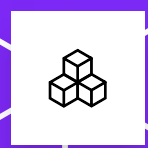
CU Crypto participants will be notified when the book is released. **If you would like to be notified, please register at cucrypto.report.**

Thank you to all credit union participants and Innovation Club members that provided data for this report. A special thanks to the Innovation Club for their collaboration and providing additional insight into the crypto world as we launch the first of many future CU Crypto Reports.



What is the Innovation Club?

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Crypto Report 2022.

Stay tuned for the next edition of the

CU Crypto Report

