Cryptocurrency, Blockchain And Global Business: Assessing The Potential For Multinational Companies And Financial Institutions, a PYMNTS and Circle collaboration, examines what's driving the growing adoption of cryptocurrency and blockchain technologies in the business world. The report is based on extensive surveys of executives at 250 multinational businesses and 250 FIs.

AUGUST 2021

CRYPTOCURRENCY, BLOCKCHAIN AND GLOBAL BUSINESS

ASSESSING THE POTENTIAL FOR MULTINATIONAL COMPANIES AND FINANCIAL INSTITUTIONS

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Cryptocurrency, Blockchain And Global Business was done in collaboration with Circle, and PYMNTS is grateful for the company's support and insight. **PYMNTS.com** retains full editorial control over the following findings, methodology and data analysis.

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INTRODUCTION

Cryptocurrency and blockchain technologies have captured the attention of retail investors, regulators and businesses around the world. A persistent question has remained, however: Do global businesses care more about the utility of digital assets or their ability to generate a return on investment? After all, multinational businesses — and the financial institutions (FIs) that serve them — play foundational roles in shaping the global economy and facilitating the exchange of funds from country to country.

To help answer the question whether these companies value digital assets primarily for their usefulness as a means of transaction or more as an intriguing investment, PYMNTS, in collaboration with global financial technology firm Circle, surveyed executives at 250 multinational businesses and 250 FIs.

An answer emerged: Utility is what matters most to global firms.

- Global firms are six times more likely to use cryptocurrencies to conduct transactions than they are to hold them as investments.
- 50 percent of multinational firms already use or plan to use digital assets to facilitate cross-border payments. This exceeds the share of multinational businesses that hold cryptocurrency for investing and asset management purposes on their balance sheets (21 percent).
- 93 percent of FIs believe business customers would use cryptocurrencies for both investing and transacting. In fact, these clients are far more interested in transacting with cryptocurrencies.
- 28 percent of global businesses use stablecoins, digital currencies like USD coin (USDC) that are tied to the values of fiat currencies or commodities.

BLOCKCHAIN AND CRYPTOCURRENCY DEFINITIONS

Our study uses the following definitions for these technologies.

BLOCKCHAIN:

Decentralized distributed digital ledgers that allow for a wide range of peer-to-peer (P2P) transactions in which each participant maintains a replica of shared, append-only, digitally signed transactions. Replicas remain in sync through a protocol called a consensus. Blockchains can be private, which means there are restrictions on who can execute consensus protocols and maintain shared ledgers, or public, which means they are completely open. Blockchain promises greater transparency, traceability, security and efficiency.

CRYPTOCURRENCIES:

Digital currencies supported by blockchain technology. Our study focuses on the most common forms of cryptocurrencies, including bitcoin, stablecoins (which are tied to the value of fiat currencies, such as the United States dollar) and ether, which runs on the ethereum blockchain.

The frictions long associated with cross-border payments, including varying banking hours and differing regulations, appear to be key drivers of cryptocurrency adoption and that of other blockchain-based financial tools. Blockchain payments provide a nearly instant, transparent and secure means of moving money across borders. Our research shows that firms that do business in more geographies are more likely to utilize cryptocurrency for this use case: 84 percent of those that operate in 10 or more countries use at least one form of cryptocurrency.

Traditional FIs have taken notice of these developments. While just 10 percent provide access to cryptocurrencies, nearly three-quarters plan to expand access to them over the next 12 months. FIs and multinational businesses view the utility of blockchain and cryptocurrency differently, however, and this disconnect translates to FI strategies that may not be entirely aligned with the needs of these firms.

This report includes an array of other insights about how global companies and FIs view, use and plan to incorporate digital assets into their business operations in the near future. For more on these and additional insights, read on.

01

More than half of multinational businesses already use blockchain technology, and three-quarters of firms operating in six or more countries use at least one type of cryptocurrency.

Blockchain technology and cryptocurrency use is becoming ubiquitous for organizations that conduct cross-border business. Our research shows that 56 percent of multinational firms employ blockchain technology, and 58 percent use at least one type of cryptocurrency. Bitcoin is the most prevalent cryptocurrency, used by 31 percent of multinational firms. This is followed by stablecoins — such as USDC — at 29 percent and ether at 24 percent. There is a strong correlation between operating in multiple geographies and using cryptocurrency. Our research shows that 77 percent of firms that operate in six or more markets use at least one cryptocurrency, compared to 33 percent of those that operate in just two markets.

02

Among multinational firms, cross-border payments and smart contracts are the leading use cases for blockchain and cryptocurrency technologies.

Multinational companies are interested in using blockchain technologies for operational and transactional purposes — far more than for investment-based ones. Smart contracts, in which unalterable blockchain code is used to establish and confirm the terms of an agreement, are the most common use of blockchain among the applications we examined: 42 percent of firms report using the technology for this purpose. Cross-border payments are the second-most common application of cryptocurrency and blockchain technologies: 37 percent of multinational firms say they use them for this purpose.

03

Only about 10 percent of FIs currently provide access to at least one form of cryptocurrency, but nearly 75 percent plan to expand access over the next 12 months.

FIs currently work with cryptocurrencies to a limited extent: Just one out of 10 FIs say they currently support cryptocurrencies. Bitcoin is the most common (6 percent of FIs provide access), followed closely by stablecoins (4 percent) and ether (4 percent). FIs' ambitions for cryptocurrency and blockchain services are another story, however. Nearly three-quarters plan to introduce or expand access to both cryptocurrency (73 percent) and blockchain (72 percent) over the next 12 months. A majority of FI executives consider cryptocurrency "very" or "extremely" important for their corporate and government customers: 61 percent have this view, making it the second-most cited priority for these clients after payment acceptance.

04

Many FIs are misaligned with multinational businesses' cryptocurrency and blockchain priorities, and FIs also appear to lack clear strategic directions for implementing such services.

FIs tend to underestimate the degree to which multinational companies are interested in using cryptocurrency and blockchain technologies for transactional purposes, rather than for investing or asset management. Only about 4 percent of FIs believe these clients would want to use bitcoin solely for transacting. Most executives at multinational firms would prefer to use decentralized financial tools for transacting rather than investing or a combination of the two functions. FIs also do not seem to fully appreciate businesses' interest in the use of blockchain technologies for smart contracts: Just 23 percent of FIs believe access to smart contracts is "very" or "extremely" important to their corporate and government customers, even though this is the most common use multinational firms cite.

FIs also appear to be somewhat unfocused in their blockchain and cryptocurrency strategies. They cite nine different factors as important drivers of these plans, including the strength or weakness of their current internal digital infrastructure (26 percent), the need to retain or attract customers (24 percent) and the potential for better data security (23 percent). No more than 11 percent cite any one single factor as the most important, and greater operational efficiencies is most cited.

05

Leaders at FIs and multinational firms are not entirely confident in their knowledge of blockchain and cryptocurrency technologies, even though many of them have dedicated staff for these purposes.

Ninety-five percent of FIs have staff dedicated solely to these technologies, as is the case for 54 percent of multinational firms. Still, 64 percent of decision makers at FIs understand these technologies only "moderately well" or less, according to our data. A similar dynamic is present at multinational firms: 64 percent of their decision makers understand the technologies only moderately well or worse, including 29 percent who understand only "slightly" or "not at all."

The state of blockchain adoption among multinational firms

PYMNTS' research reveals that a majority of multinational businesses use both blockchain and cryptocurrency: 58 percent use at least one form of cryptocurrency, and 56 percent use blockchain. The similar shares may reflect the overlapping natures of these two decentralized financial tools. The ethereum network is also used for several blockchain-based financial services, for example, including smart contracts.

58% OF **MULTINATIONAL FIRMS** USE AT LEAST ONE FORM OF CRYPTOCURRENCY.

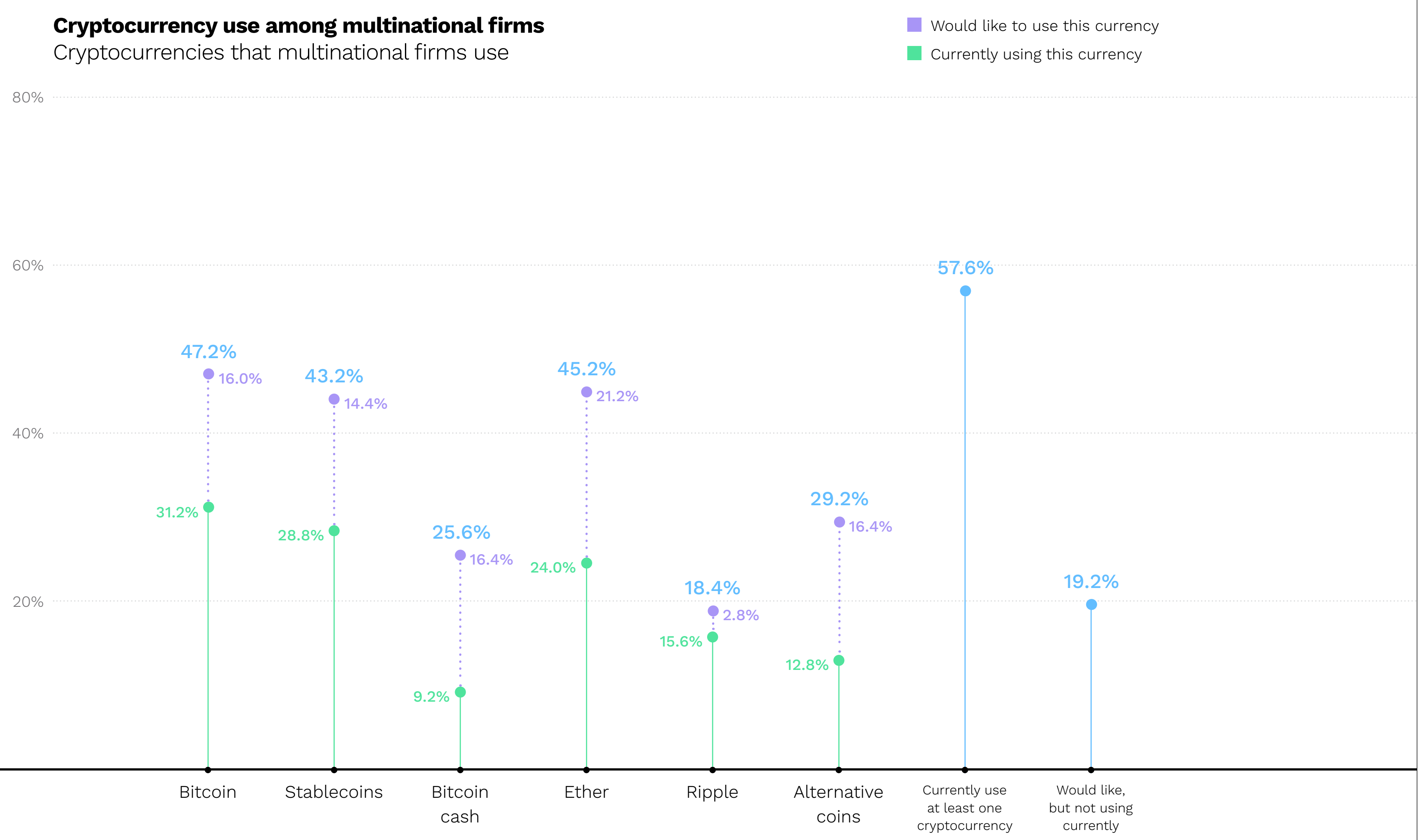
Multinational firms are not just using bitcoin — they are using a multitude of cryptocurrencies. Bitcoin is the most prevalent type, with 31 percent of firms using it, but other currencies stand out for their rapid uptake. Twenty-nine percent use stablecoins, while 24 percent use ether and 21 percent would be interested in using ether, making it among the most compelling cryptocurrencies.

Operating across borders appears to be a key driver of cryptocurrency adoption. The more countries in which a firm operates, the more likely it is to use multiple types of currency. Our research shows that 84 percent of firms that operate in 10 or more markets use at least one cryptocurrency, compared to 33 percent of those that operate in just two.

Multinational firms are not simply investing in cryptocurrencies or holding them as hedges as part of their treasury management strategies. They are actively using them for transacting — particularly to move funds across borders. Firms were more likely to report using each of the cryptocurrencies we examined to transact rather than invest. Sixteen percent of

FIGURE 1:

Cryptocurrency use among multinational firms
Cryptocurrencies that multinational firms use



Source: PYMNTS.com

53%

OF MULTINATIONAL FIRMS THAT OPERATE IN MORE THAN 10 COUNTRIES USE **BITCOIN.**

TABLE 1:

Cryptocurrency use among multinational firms
Cryptocurrencies that multinational firms use, by the number of countries in which they operate

Highest
Lowest

	2	3-5	6-10	10+
• Bitcoin	19.2%	27.5%	44.2%	**53.1%**
• Stablecoins	19.2%	33.3%	37.2%	25.0%
• Bitcoin cash	**2.7%**	9.8%	7.0%	25.0%
• Ether	15.1%	22.5%	32.6%	37.5%
• Ripple	5.5%	11.8%	18.6%	46.9%
• Alternative coins	8.2%	13.7%	7.0%	28.1%
• Currently use at least one cryptocurrency	32.9%	60.8%	72.1%	84.4%
• Would like, but not using currently	23.3%	23.5%	11.6%	6.3%

Source: PYMNTS.com

firms that use bitcoin say they use it just for transacting, compared to 2 percent who use it solely for investing; 14 percent use it for both purposes.

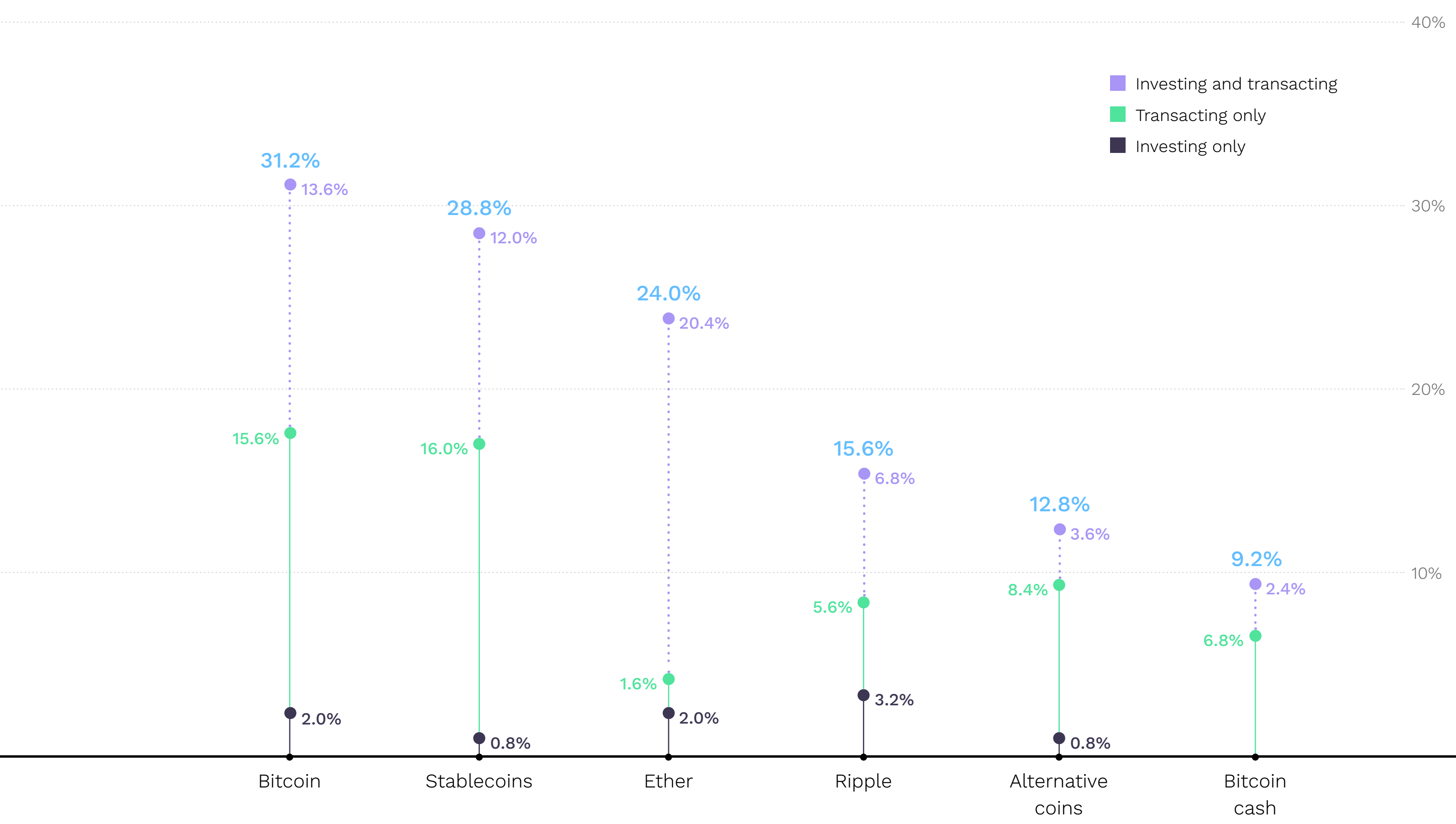
Stablecoins stand out as uniquely attractive for transacting: 16 percent of multinational firms use such digital assets for this purpose, while barely 1 percent use them solely for investing. Seen another way, global firms are six times more likely to use cryptocurrencies to conduct transactions than they are to merely hold them on their balance sheets.

Our data shows that 37 percent of multinational firms use blockchain technologies, including cryptocurrencies, for cross-border payments and 42 percent use smart contracts that trigger payments, making these the most common applications. Asset management is a considerably less common use of these decentralized financial tools, as 21 percent of multinational firms employ them for this purpose.

It also bears noting that multinational firms' interest in these technologies extends to payments that are not cross-border. Twenty-three percent would like to use blockchain and cryptocurrencies for other types of payments — underscoring that the need for fast and cost-effective payment alternatives is not confined to the cross-border realm.

FIGURE 2:

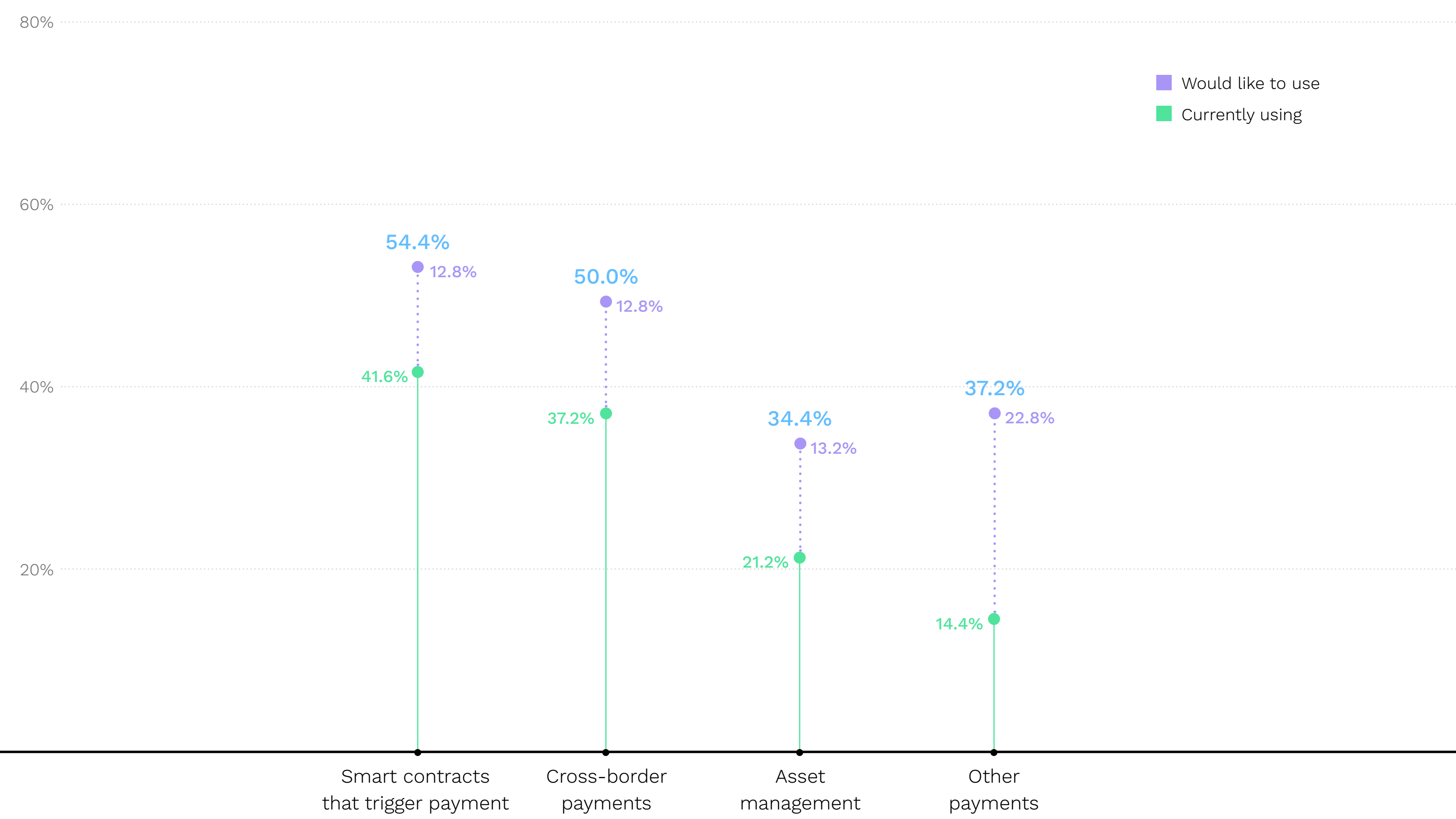
Investing versus transacting with cryptocurrencies
Share of firms that use select cryptocurrencies to invest, transact or both



Source: PYMNTS.com

FIGURE 3:

Business uses of blockchain and cryptocurrency
Share of firms that currently use or would like to use these technologies for select purposes



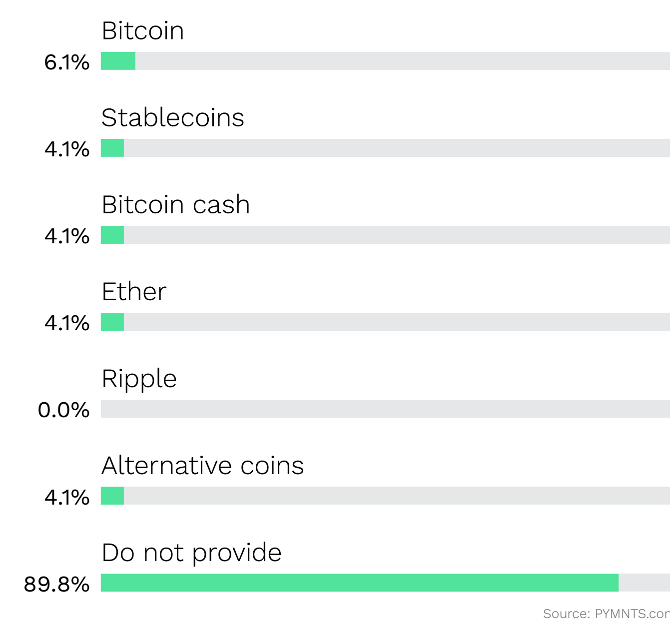
Source: PYMNTS.com

The actual and aspirational state of blockchain adoption among FIs

There is a gulf between multinational companies and FIs when it comes to blockchain technologies and cryptocurrencies, starting with the fact that FIs are far less likely to be currently working with them. Just 10 percent of FIs say they currently provide access to one or more forms of cryptocurrency. Bitcoin is the most common, with 6 percent of FIs providing access, followed by stablecoins (4 percent) and ether (4 percent). Stablecoins having such traction is notable, considering that USDC was only launched a few years ago.

FIGURE 4:

Cryptocurrencies to which FIs provide access
Share of FIs that support select digital currencies



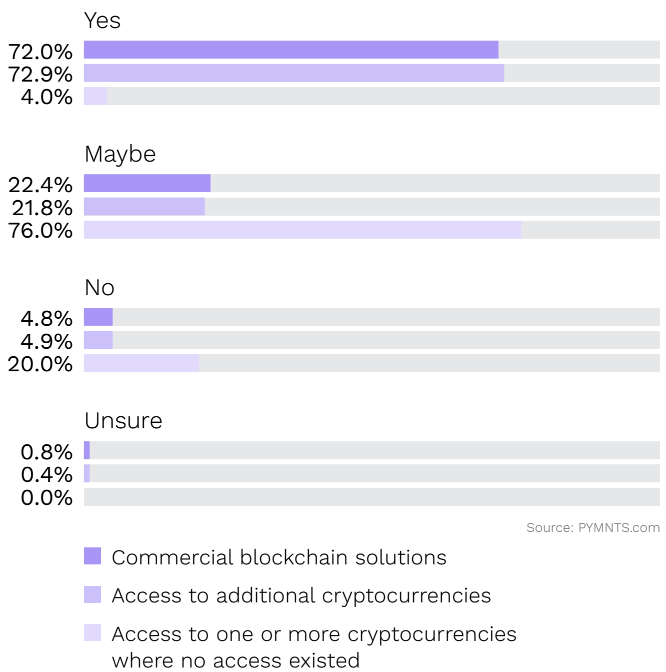
10%

OF FIs SAY THEY **PROVIDE ACCESS** TO AT LEAST ONE FORM OF CRYPTOCURRENCY.

FIGURE 5:

FIs' cryptocurrency and blockchain plans

Share of FIs that plan to introduce select services over the next 12 months



FIs' ambitions in this area are another story, however. Close to 72 percent plan to introduce commercial blockchain solutions over the next 12 months, and 73 percent plan to provide access to additional cryptocurrencies. These plans seem geared toward meeting perceived demand among their clients: 61 percent of FIs consider access to cryptocurrency "very" or "extremely" important for their corporate and government customers, coming in second only to payment acceptance as the financial service these clients most demand.

When separating FinTechs from banks, our data shows that the former are even more single-minded about the importance of decentralized financial services: 58 percent consider expanded access to cryptocurrencies highly important, considerably outweighing all other financial services.

72%

OF FIs PLAN TO INTRODUCE **COMMERCIAL BLOCKCHAIN SERVICES** OVER THE NEXT 12 MONTHS.

TABLE 2:

Most important financial services for corporate and government customers

Share of banks and FinTechs that consider select services "very" or "extremely" important to these clients

Highest
Lowest

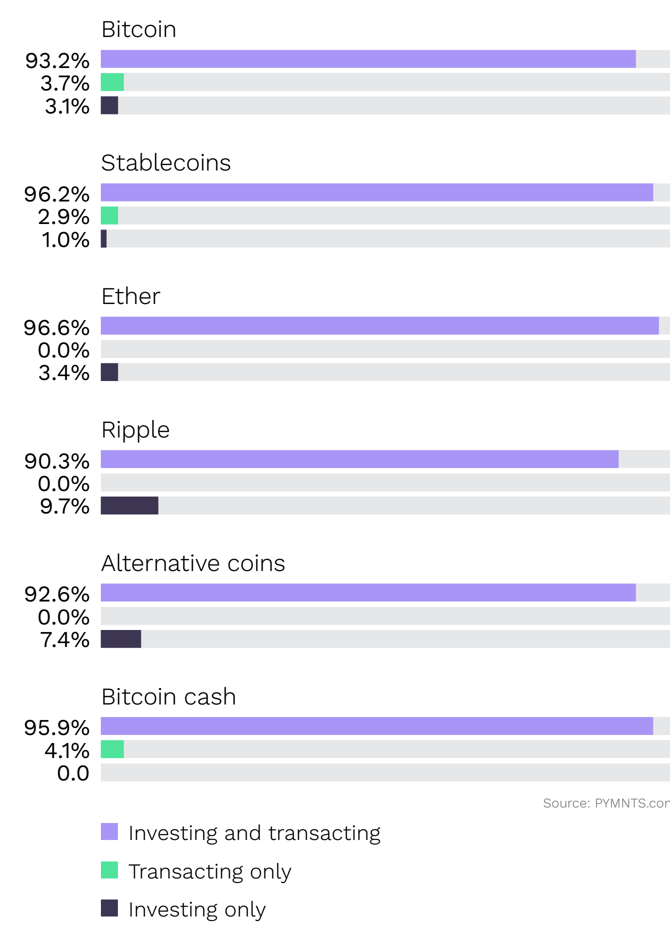
	Total	Bank	FinTech
• Payment acceptance	59.1%	**69.2%**	43.7%
• Access to cryptocurrency	61.4%	63.9%	**57.5%**
• Access to public blockchain networks	52.7%	59.4%	42.5%
• Fixed asset requirement financing	40.0%	48.9%	26.4%
• Commercial services	37.7%	47.4%	23.0%
• Trade finance	42.7%	43.6%	41.4%
• Employer services	37.7%	43.6%	28.7%
• Treasury services	34.1%	43.6%	19.5%
• Business loans/lines of credit	36.4%	36.8%	35.6%
• Access to private blockchain networks	19.1%	19.5%	**18.4%**
• Access to blockchain for smart contracts	23.2%	**18.0%**	31.0%

Source: PYMNTS.com

A diffuse and disconnected strategy

FIGURE 6:

FIs' perceived business uses of cryptocurrency
Share of FIs that believe businesses would use select cryptocurrencies for investing, transacting or both



Financial institutions have remarkable levels of interest in expanding blockchain and cryptocurrency-based services. Our research suggests their strategies for bringing them to market are somewhat uncertain and unfocused — and not entirely aligned with multinational firms, the businesses for which these services are most compelling.

Many FIs do not fully recognize how interested institutional customers are in using cryptocurrencies for transactional purposes. Only around 4 percent of FIs believe these clients want to use bitcoin solely for transacting, while the lion's share of FIs — 93 percent — believe business customers would use it for both investing and transaction. In fact, multinational firms are more interested in transacting with cryptocurrencies than investing in them. FIs' tendency to choose the "all of the above" option may reflect a lack of certainty on this matter.

This pattern is further revealed when we assess FIs' cryptocurrency and blockchain implementation roadmaps, which are, in a sense, all over the map. FIs cite nine different factors as important drivers of these plans: Approximately 21 percent to 26 percent of FIs cite factors that include the strength or weakness of their current internal digital infrastructure (26 percent), the need to retain or attract customers (24 percent) and the potential for better data security (23 percent). No single factor emerges as the most important for FIs, although greater operational efficiencies, such as reduced reconciliation times, comes closest: 11 percent of FIs cite it as the most important factor informing their blockchain strategies.

TABLE 3:

Factors informing FIs' blockchain and cryptocurrency strategies
Share of FIs that consider select factors as important or the most important when offering such services

Highest
Lowest

	Total	Most important	Important but not most important
• Strength and weakness of current internal infrastructure	25.6%	8.0%	**17.6%**
• The need to retain and attract customers	24.4%	9.2%	15.2%
• Potential for better data securuty	23.2%	7.6%	15.6%
• Access to experts with blockchain knowledge	22.8%	7.6%	15.2%
• Potential for greater profits	21.6%	8.0%	13.6%
• Potential for greater operational efficiencies	21.6%	**10.8%**	10.8%
• Current regulatory structure	21.6%	6.8%	14.8%
• Risk of new business model disruptions	21.6%	6.0%	15.6%
• Potential for capturing real-time reference data	20.8%	5.6%	15.2%
• Current decision-making impeded by misinformation	20.0%	5.2%	14.8%
• Desire to enter new market or regain lost market share	18.8%	**4.0%**	14.8%
• Risk of adopting technologies that are not well understood	17.6%	6.4%	11.2%
• Evidence that blockchain can handle the volume in real-time	16.4%	6.8%	9.6%
• Buy-in of organization leaders	16.0%	8.0%	**8.0%**

Source: PYMNTS.com

There are understandable reasons why crafting blockchain strategies may be challenging for FIs, including the unsettled regulatory environment — a foremost concern for banks. Federal regulators have signaled support for allowing banks to use stablecoins for a growing array of purposes, but this is only one of several matters on FI leaders' minds when weighing the barriers to integrating blockchain-based currencies and services.[1]

The barriers that FIs believe impede the introduction of such services also speak to a lack of clarity. Just over 30 percent of FIs say the profitability of such products is unclear. Next most referenced were concerns about data security, which 29 percent cited. One-quarter of FIs cite seven other barriers, including a lack of understanding blockchain and cryptocurrency services' benefits and limitations (27 percent) and a lack of certainty about customer demand (27 percent).

NO SINGLE FACTOR EMERGES AS **A CHIEF DRIVER** OF FIs' BLOCKCHAIN STRATEGIES.

[1] Satran, R. U.S. regulator's approval of stablecoin payments provides regulatory building block, compliance challenge. Reuters. 2021. https://www.reuters.com/article/bc-fin-reg-stablecoin-approval/u-s-regulators-approval-of-stablecoin-payments-provides-regulatory-building-block-compliance-challenge-idUSKBN29I2XZ. Accessed June 2021.

43%

OF MULTINATIONAL BUSINESSES CITE **REGULATORY MATTERS AS A BARRIER** TO INTEGRATING BLOCKCHAIN SERVICES.

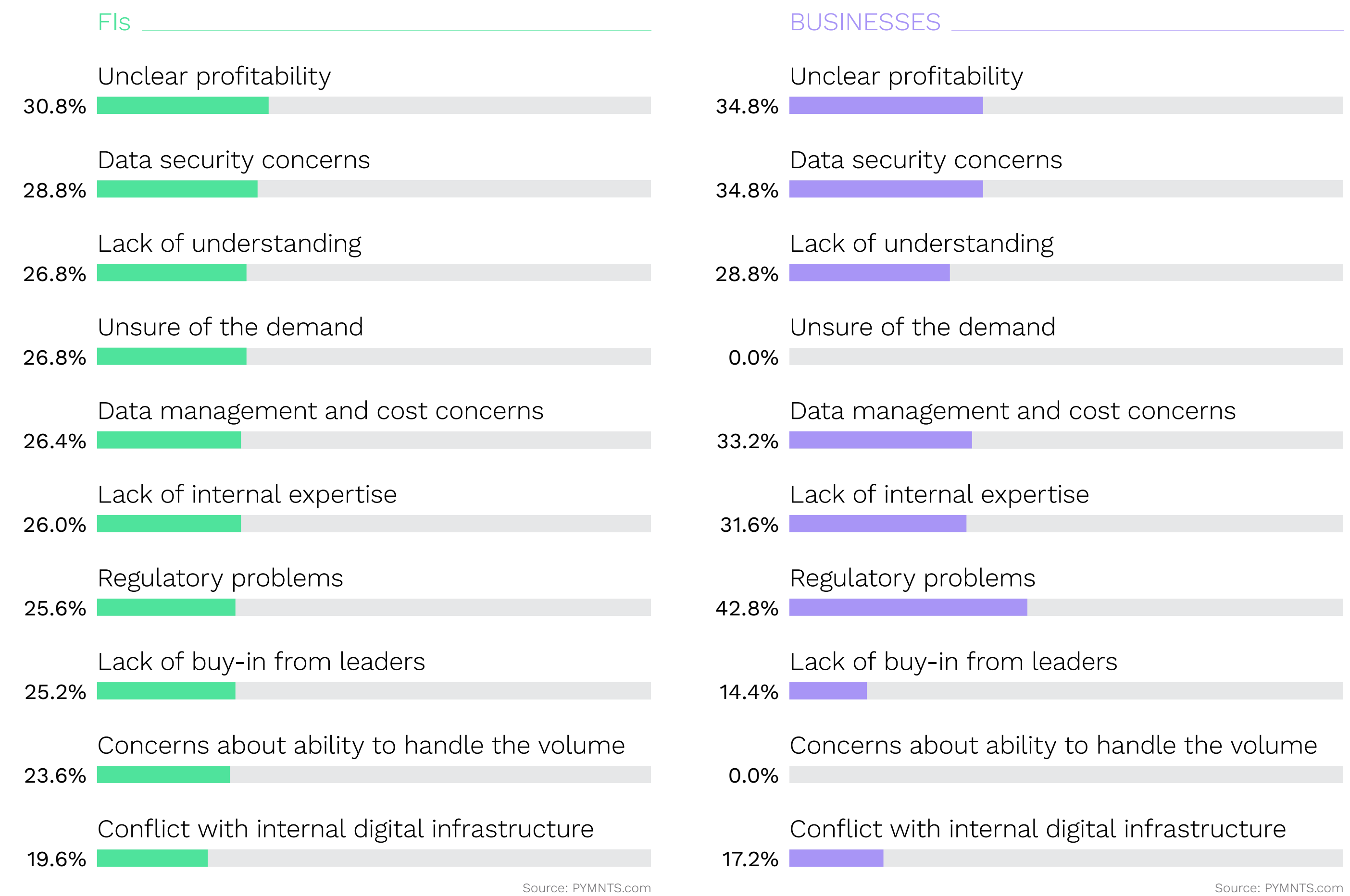
It bears noting that multinational businesses are more likely than FIs to cite barriers to implementing blockchain and cryptocurrency services in many cases. One-third of them cite at least one of four different barriers, with one looming larger than others: regulatory concerns, which 43 percent of firms view as a hindrance. Such worries are understandable for businesses and FIs alike, considering the regulatory lag time that is often associated with technological innovation — and the fact that the corporate and financial worlds are highly regulated environments. Notably, regulatory concerns are not among the most important barriers FIs cited but are the top barrier cited by 43 percent of the businesses that FIs hope to attract.

This suggests that multinational firms face their own share of uncertainties about using potentially groundbreaking blockchain technologies. This could represent an opportunity for banks and FinTechs, however, and these FIs should make themselves aware of the main challenges if they want to serve as solution providers in the blockchain arena.

FIGURE 7:

FIs' and businesses' barriers to blockchain and cryptocurrency adoption

FIs' and businesses' perceived barriers to integrating blockchain and cryptocurrency services



Bridging the **knowledge gap**

There is little doubt that blockchain-based technologies have captured the attention of FIs. Our data makes this abundantly clear: Close to three-quarters of FIs plan to introduce such services over the coming year. Our research has also exposed a gulf between the scale of FIs' ambitions in this space and the clarity of their plans to integrate and support such services, particularly for corporate customers.

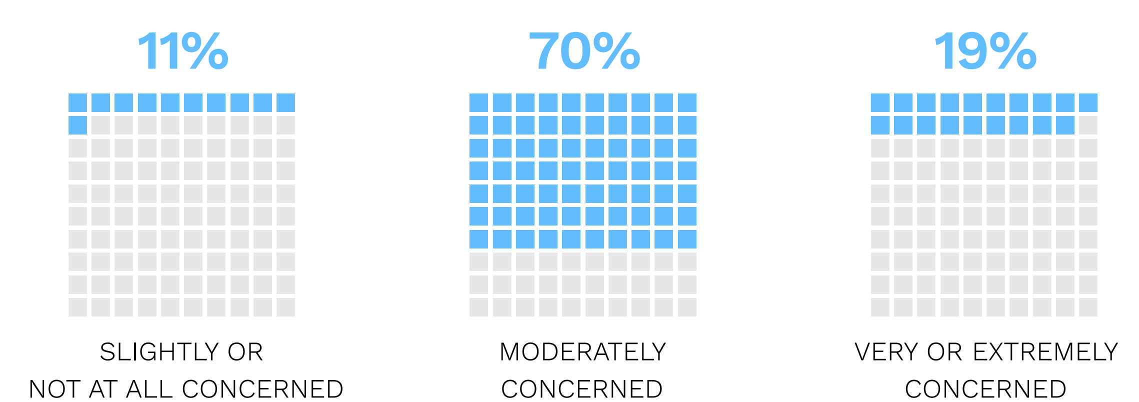
One possibility is that FIs' attitudes are rooted in the sense that they must do something out of the fear of missing out.

In addition, blockchain's decentralized nature poses legitimate risks to many FIs' long-standing business models. Businesses and consumers can and do use blockchain and cryptocurrencies with little or no involvement from the established financial system, after all.

Our data reflects some of these anxieties FIs may be experiencing. Nearly 90 percent of FI executives are concerned about competition from decentralized financial models, including 19 percent who are "very" or "extremely" concerned. Just 11 percent of them are only "slightly" or "not at all" concerned.

FIGURE 8:

Perceived threats posed by decentralized financial models
Share of FIs exhibiting select levels of concern about competition from such models



Source: PYMNTS.com

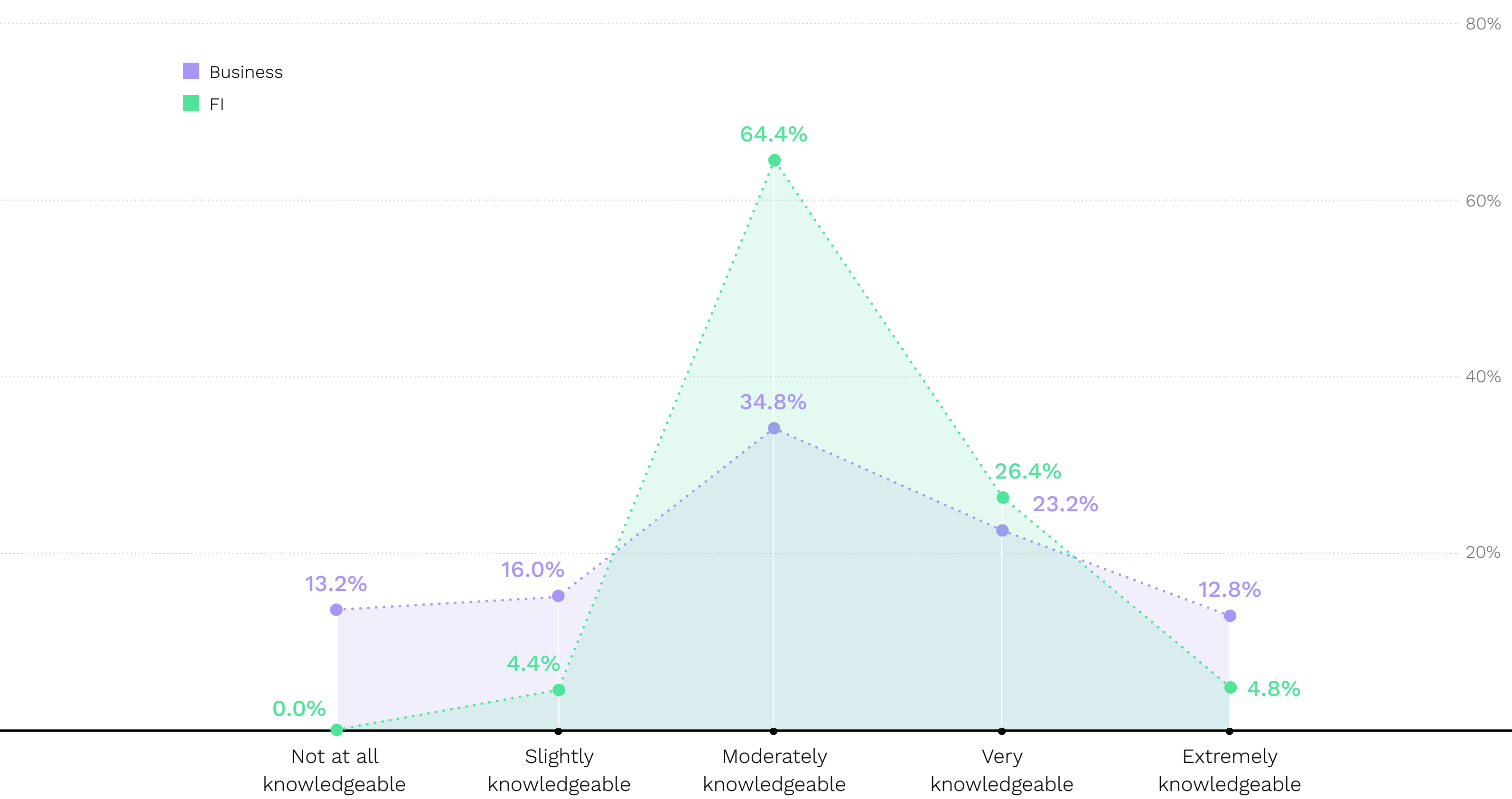
One strong indicator that blockchain and cryptocurrencies are squarely on FIs' radars is the share of them that are already assigning staff to these areas. Nearly 95 percent of FIs say they have dedicated staff solely to these technologies, with most assigning two to five employees.

Despite these investments, significant shares of FI decision-makers lack a firm understanding of blockchain-based technologies. Just 31 percent of FI executives believe leaders at their firms understand the technologies "very" or "extremely" well. The vast majority — 64 percent — believe decision makers understand them only "moderately" well.

FIGURE 9:

Perceived knowledge about cryptocurrency and blockchain technologies among FI and business decision-makers

FI and business decision-maker knowledge of cryptocurrency and blockchain technologies



Source: PYMNTS.com

Issues around understanding and working with blockchain-based technologies are not confined to banks. Significant shares of executives at multinational companies — who are far more likely than banks to have experience working with these technologies — also feel their firms' leaders lack understanding. Sixty-three percent of multinational firm executives believe they grasp blockchain and cryptocurrency technologies only "moderately" well or worse, including 29 percent who believe they understand them only slightly well or not at all — nine times the share found at banks. The level of knowledge differs considerably among multinational firms: 36 percent of executives believe firm leaders firmly grasp the technologies, including 13 percent that understand them "extremely" well.

These data points suggest that there is a need for sound education and guidance for both businesses and FIs.

95%

OF FI LEADERS SAY THEY HAVE STAFF **DEDICATED SOLELY** TO BLOCKCHAIN AND/OR CRYPTOCURRENCIES.

CONCLUSION

Cryptocurrencies and blockchain technologies have gained considerable traction in the relatively short period of time they have been available for commercial applications, especially among firms that operate across borders. Most multinational firms use at least one kind of cryptocurrency, and more than 80 percent of organizations that do business in 10 or more countries do so. Other blockchain-based applications are similarly compelling for these firms, especially smart contracts.

FIs have understandably taken notice of these trends: Three-quarters of them plan to roll out cryptocurrency and blockchain-based services over the next 12 months. Our research also reveals some less favorable trends when it comes to FIs and blockchain-based technologies, however. Many of them lack clear strategies for bringing such services to market, and large shares of FI leaders do not have a firm grasp of the technologies themselves.

This may represent an opportunity for financial leaders, however. The reality is that the field of cryptocurrency and blockchain remains daunting, with many firms concerned about regulatory risk and headlines suggesting that cryptocurrencies are both risky and mere novelties.

Trusted financial institutions could be a crucial on-ramp to blockchain and cryptocurrency services for corporate and governmental organizations. For FIs, moving into this space could help ensure their relevance in a financial market that will be transformed by these technologies — with or without them. If FIs want to fill this role, however, the first step is to ensure that they have the right knowledge, guidance and strategies.

METHODOLOGY

Cryptocurrency, Blockchain And Global Business: Assessing The Potential For Multinational Companies And Financial Institutions is based on two surveys, one of financial institution leaders and the other of multinational firms' executives. The FI survey consisted of 250 executives from a range of institutions, including regional, national and international banks and FinTechs. The business survey consisted of 250 executives with businesses that operate in at least two countries and have revenues of at least $10 million annually. The surveys contained 21 questions and were conducted between April 7 and April 27.

CRYPTOCURRENCY, BLOCKCHAIN AND GLOBAL BUSINESS

ASSESSING THE POTENTIAL FOR MULTINATIONAL COMPANIES AND FINANCIAL INSTITUTIONS

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ABOUT

PYMNTS.com is where the best minds and the best content meet on the web to learn about "What's Next" in payments and commerce. Our interactive platform is reinventing the way in which companies in payments share relevant information about the initiatives that shape the future of this dynamic sector and make news. Our data and analytics team includes economists, data scientists and industry analysts who work with companies to measure and quantify the innovation that is at the cutting edge of this new world.

Circle is a global financial technology firm that enables businesses of all sizes to harness the power of stablecoins and public blockchains for payments, commerce and financial applications worldwide. Circle's platform has supported over 100 million transactions worth tens of billions of dollars, with nearly 10 million retail customers, over a thousand businesses, while storing and securing more than $5 billion in digital currency assets. Circle is also the creator of USD Coin (USDC), the fastest growing, regulated, fully-reserved stablecoin, which now stands at a 3+ billion market cap and is adding more than 100 million net new digital dollars in circulation every week. Today, Circle's transactional services, business accounts, and platform APIs are giving rise to a new generation of financial services and commerce applications that hold the promise of raising global economic prosperity for all through programmable internet commerce.

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