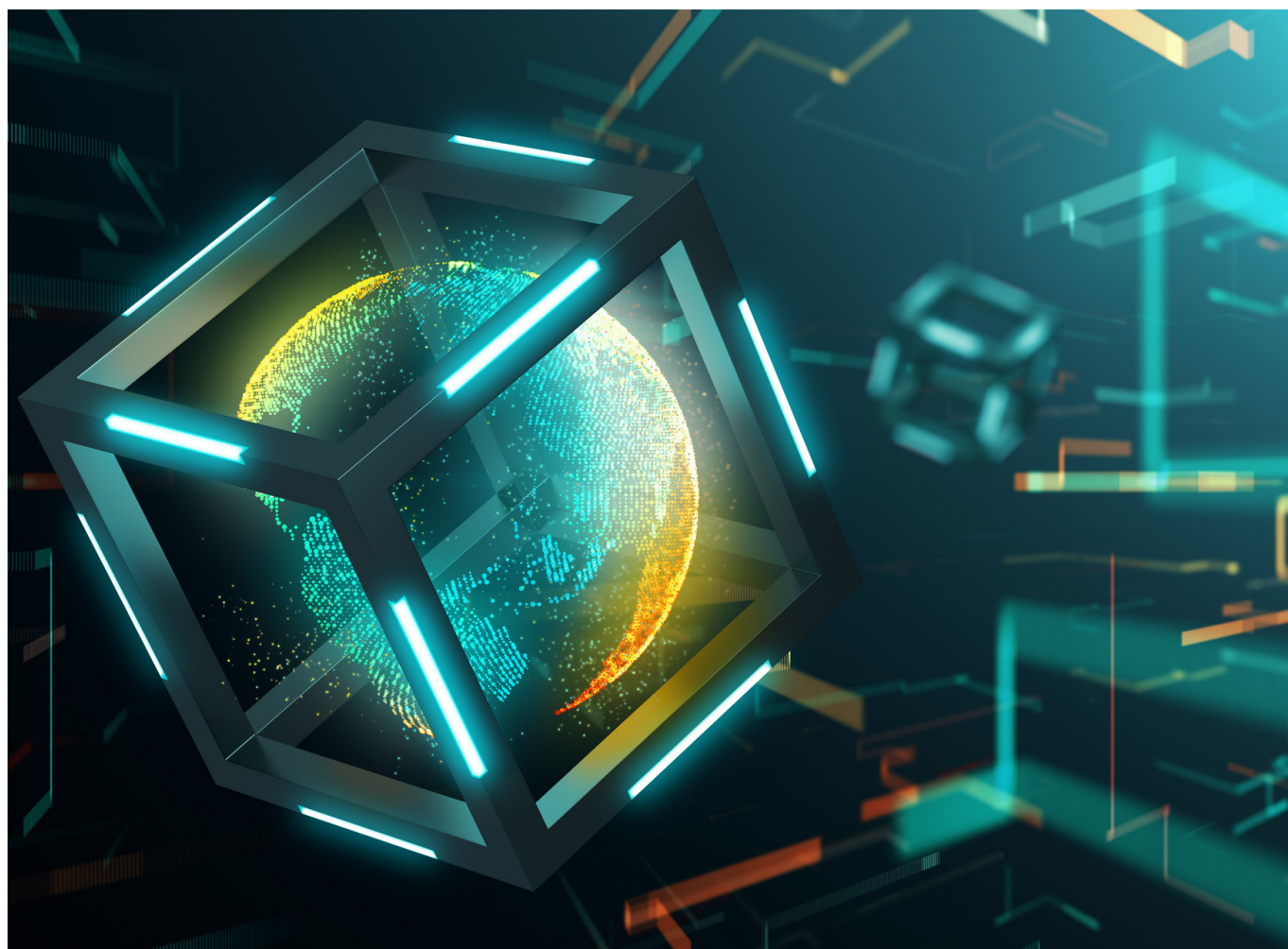


Survey Report

Crypto Investing — Asset Managers Have Left the Starting Block

June 2022



waterstechnology

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Introduction

Asset managers are diving into the rapidly evolving world of blockchain technologies—crypto currencies, digital assets and smart contracts—and are progressing faster expected.

The global crypto market cap roughly tripled in 2021, at one point nearing \$3 trillion.¹ The market continues to swing wildly, but at \$1.28 trillion has still added almost \$1 trillion in overall market value since 2020. This growth is fueled by venture capital, \$32.8 billion of which went into startups in the crypto and blockchain technology sector in 2021.² And, as investors build crypto-asset portfolios globally, hundreds of custodians are beginning to offer digital asset solutions.³ As lawmakers and regulators scramble to address the risks involved, the drumbeat for including crypto assets in a diversified investment portfolio has gotten louder.

Asset managers might be forgiven for thinking their peers have not yet grasped the implications of these new assets and technologies. This survey research report details how close asset managers are to offering crypto-focused products and strategies, and managing the investment process. It also highlights the extent to which asset managers have embraced decentralized finance (DeFi) in their investment operations. *WatersTechnology's* research reveals that asset managers are further along than some might realize.

Highlights

Key finding 1: Crypto offering

- **51%** of firms are taking active steps towards offering crypto assets. **7%** are already offering products in this space.

Key finding 2: Operational preparedness for crypto-asset investing

- **7 out of 10** surveyed firms are actively responding to the challenge of operational preparedness to support crypto-asset investing. **21%** are fully prepared and ahead of the curve as this is a priority for the business.

Key finding 3: Smart contracts, DLT and blockchain as operational solutions

- **53%** of surveyed firms are actively reviewing or participating in initiatives around using these technologies to change their operational businesses. **16%** are actively testing or using these technologies as part of their operations.

Key finding 4: Greatest areas of opportunity for blockchain

- Several firms cited **automated transactions** as the area where blockchain provided the greatest value to their firm in terms of operational efficiency.

Percentages in some tables and graphs may not total 100 due to rounding.

About the Report

This report is based on a *WatersTechnology* survey commissioned by Linedata and conducted in May 2022.

Respondents

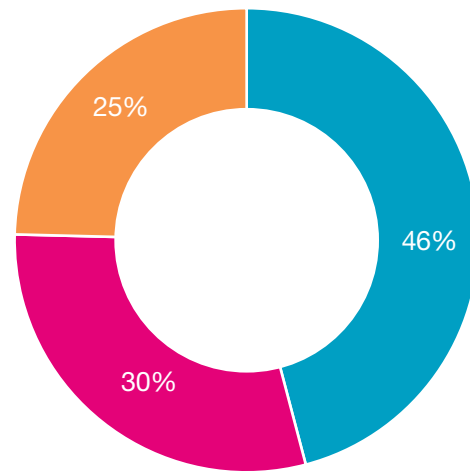
The survey sought the views of firms from the three regions where crypto is most developed. Almost half of respondents were based in North America (46%), with a fairly even split among respondents from Asia-Pacific (APAC) and Europe (see figure 1).

A broad cross-section of buy-side firms was represented, with a small majority comprising institutional asset managers, and with good representation across other types of firms (see figure 2). A majority of these firms were mid-sized (see figure 3). Of the 60 respondents to the survey, there was a good mix of job responsibilities, with a large proportion of portfolio managers (see figure 4).

For the purposes of the methodology, the data was split by region, which revealed that—of the respondents from the APAC region—a high percentage (40%) were technologists, whereas respondents from North America were represented primarily by portfolio managers (43%). The data was split by the firms' assets under management (AUM), which showed a majority of the largest firms with AUM of more than \$500 billion were institutional asset managers (7%).

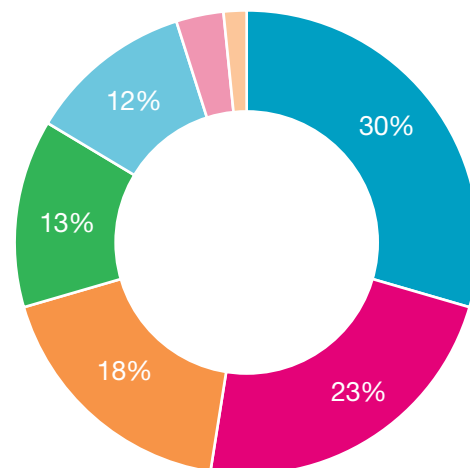
The results were also further split by job responsibilities, type and size of firm for the purposes of further analysis of substantive responses within the main sections of the report.

1 Where is your organization based?



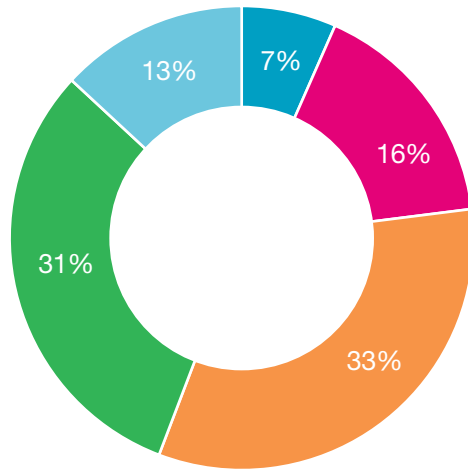
- North America
- Europe
- APAC

2 What type of organization do you represent?



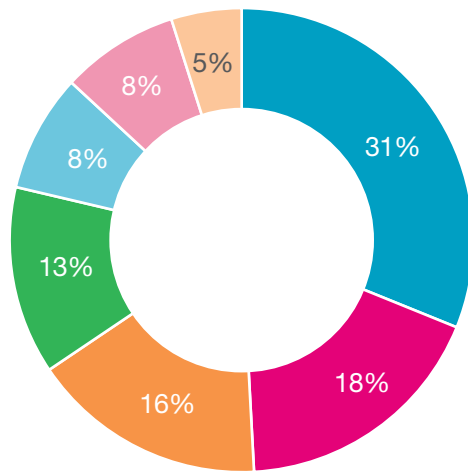
- Institutional asset manager
- Private equity fund
- Hedge fund
- Mutual fund
- Wealth manager/family office
- Other institutional investor
- Custodian and fund administrator

3 How much does your organization have in AUM?



- More than \$500 billion
- \$251 billion–500 billion
- \$101 billion–250 billion
- \$11 billion–100 billion
- Less than \$10 billion

4 What is your primary area of responsibility?



- Portfolio management
- Technology
- Risk management
- Operations
- Portfolio compliance
- Trading
- Other

Two Strands

There are two heavily related but distinct strands to this report.

The main focus is on crypto-asset investing. The report explores how advanced asset managers are in their development of crypto products or funds to sell to institutional, alternative and retail investors. Along this same line, the report considers how developed asset managers are in their systems integrations and operations to support crypto-asset investing, including their understanding of the main operational touchpoints.

A second strand to the report relates to blockchain technology usage—smart contracts, distributed ledger technology (DLT) and the like. The report studies how far asset managers have progressed in the use of these technologies in their investment operations. This concerns wider gains for firms and the industry in making this operational and technological shift, and is connected to the first strand in that operational efficiency will help asset managers in their crypto-asset offerings.

Crypto-Asset Investing

Legal and Regulatory Backdrop

The extraordinary pace of innovation in this area means it has become imperative to build a credible and consistent legal framework. The world is now at a legal and regulatory tipping point, and lawmakers and regulators worldwide are scrambling to identify and address the many risks, and come up with ways to regulate crypto. Their challenge is to find a balance between supporting the crypto market and preventing crime and financial instability.⁴

Sanctions on Russia have heightened the pressure on crypto exchanges and trading firms to align with the global financial system and the need for more regulation, but this may be at odds with the underlying philosophy of DeFi, and experts warn that the West could be left behind in this global market.⁵ The concern is that traditional asset managers—predominantly in the US and UK—could lose to crypto natives (firms that use digital tokens on a blockchain platform) and new financial hubs if lawmakers don't find a balance. Currently, US regulators are fighting over who has jurisdiction over this market.^{6,7}

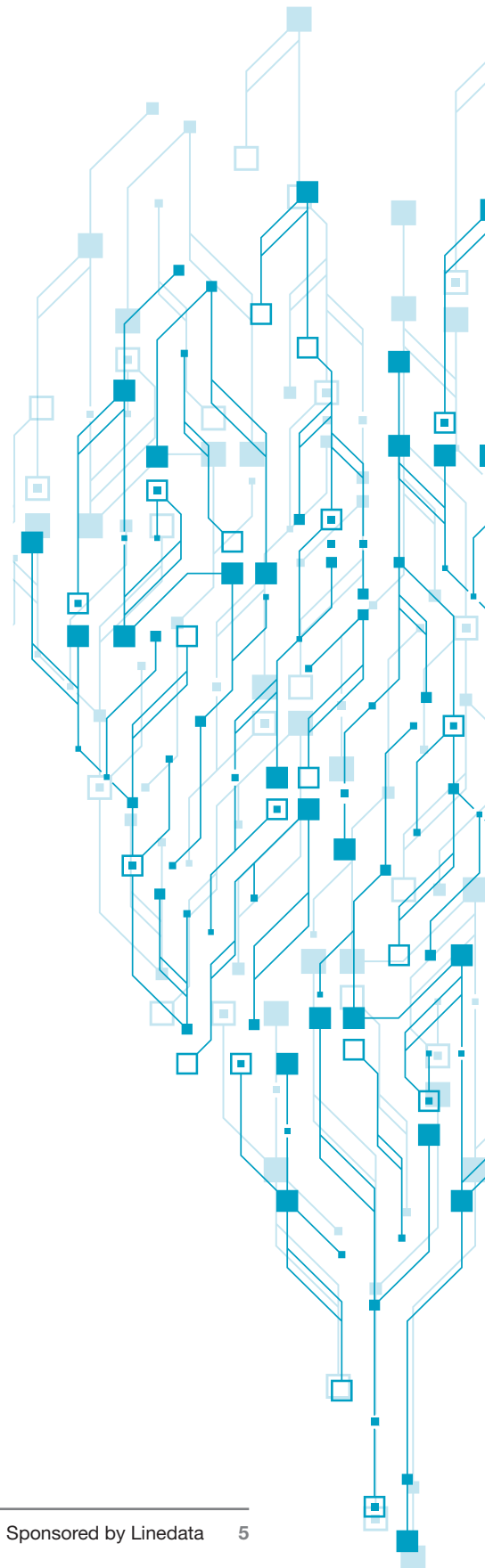
Current Usage by Institutional Asset Managers

In the meantime, there is a clear shift towards institutional firms seeking more exposure to digital assets, including big names such as BlackRock and Fidelity Investments.⁸

In January, BlackRock authorized two of its funds to engage in trading bitcoin derivatives. Others launching crypto-related products include Fidelity Investments, which launched a crypto exchange-traded fund (ETF) in early 2021. Fidelity Investments is also the first to offer access to crypto through a retirement plan—401(k)—amid some controversy.⁹

This remains a new area with disparate exchanges and fractured liquidity. So, even the largest asset managers are still learning how to trade and store crypto. Custody is no longer considered a barrier though, as traditional custodians have begun to invest in this space. Most notably, BNY Mellon and State Street are both developing digital asset custody platforms.

In addition, order management, execution and portfolio management tools, and technology platforms with offerings akin to those institutional asset managers use to trade in traditional asset classes are reducing barriers to trading crypto.



Source of Competitive Advantage

Against this backdrop, the survey first explored respondents' views on the importance of crypto-asset investments as a product offering (see figure 5). A clear majority of respondents agreed on the following:

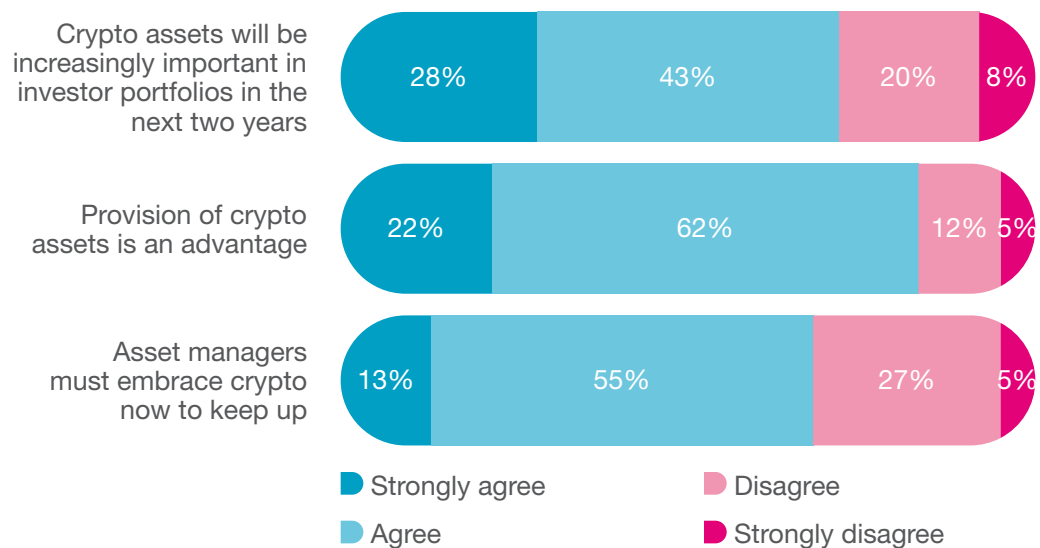
- These assets will be increasingly significant in investor portfolios in the next two years
- Their provision is a source of competitive advantage
- Asset managers must embrace it now to avoid falling behind the curve.

All respondents from the largest institutional asset managers said the industry must embrace crypto now to avoid falling behind the curve. The voice of these industry leading firms gives further weight to this view.

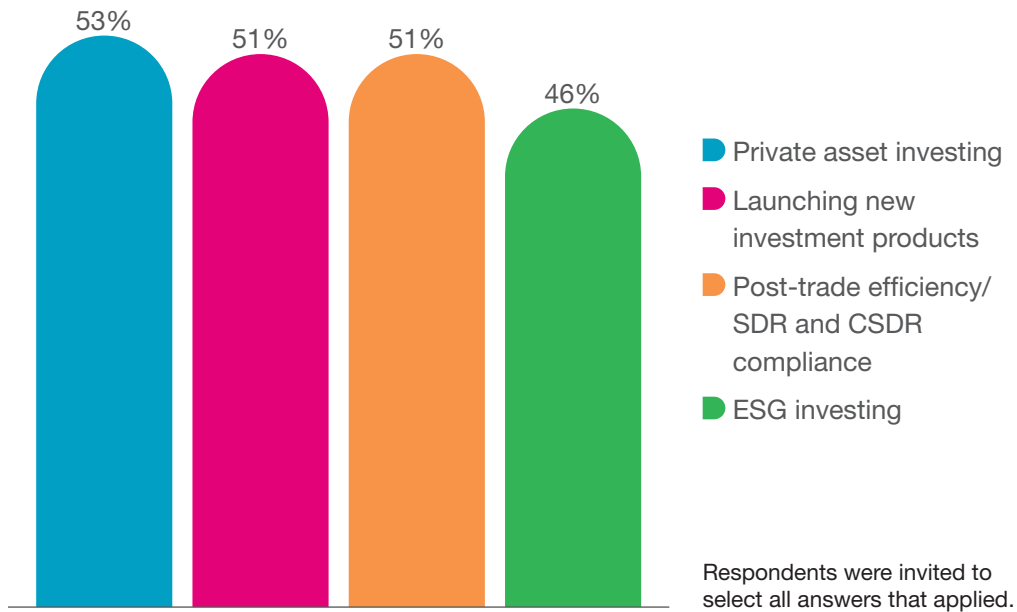
To understand the level of priority placed on crypto-asset investing, respondents were asked to compare with other high-priority investment areas. For each of these, around half of respondents found crypto investing to be a higher priority. Forty-six percent of respondents consider crypto investing a higher priority than even environmental, social and governance (ESG), which is understood to be a top priority for asset managers worldwide (see figure 6).

These results suggest that, regardless of whether asset managers are offering crypto products, they believe they should urgently prioritize this.

5 To what extent do you agree with the following statements?



6 Which of the following are of lower priority to your organization than crypto-asset investing?



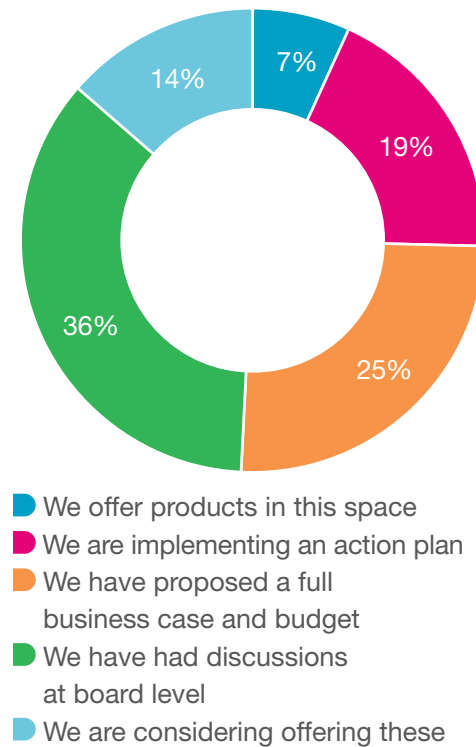
Steps Towards Offering Crypto Assets

The survey polled respondents on the stage they are at in their development of crypto products. More than half of firms said they are either already offering products or are at the business case or action plan stage (see figure 7).

Portfolio managers made up the majority of respondents (43%) who said their firms are taking active steps towards offering crypto products. This gives credence to the results because of the central role portfolio managers play in driving investment strategy and decision-making.

Moreover, with 83% of respondents agreeing that they see the provision of crypto assets as a source of competitive advantage, crypto will be viewed as a method for portfolio managers to differentiate themselves.

7 At what stage is your organization in developing crypto assets?



Operations to Support Managing Crypto Assets

Operational Implications and Touchpoints

Institutional investors are grappling with the operational processes and counterparties needed to help them manage the risks that fit their crypto-asset investing strategy.⁸

Trading

Asset managers may try to use futures or ETFs, as they are accustomed to for traditional assets, because of the continuous liquidity and pricing these products provide. But, when it comes to crypto assets, the larger institutional asset managers struggle with the liquidity in the tokens for those products and being able to access them securely. Portfolio managers and traders may find the spot market more efficient in terms of fees and pricing.

Pricing

There is a lack of standardization in pricing, making it a very chaotic part of the crypto-asset arena. It's a challenge for asset managers to get an instant price for an asset they want to trade. Since crypto prices are not consolidated, they have to cast around for one. It is hard to get a real-time quality price with depth of market. However, there are initiatives by Bloomberg and others to aggregate pricing and to try to bring some pricing transparency to the market.¹⁰

Connecting with Third Parties

Pricing is related to connecting with third parties. Crypto is not yet like traditional assets, where asset managers can connect to just one or two venues that will give them all the exposure they need. The challenge for firms is therefore working out how to effectively get best execution in a marketplace that has so many different trading venues. It's a struggle to know how many venues they need to be connected to, and how to find liquidity when they need it. Initiatives in the marketplace include named exchanges, such as Coinbase, and others trying to create their own communities of participants for liquidity purposes. "Asset managers are also trying to overlay all those, because there's still not enough liquidity in many cases. They are trying to figure out how to aggregate as many different touchpoints and venues as they can," says Gary Brackenridge, global head of asset management at Linedata.

Custody

A lack of standardization in settlement is still a challenge. Since every custodian and exchange is different, one of the questions facing the industry is how to build best practices for settlement in digital assets. With the continued scams and hacks targeted at crypto markets, other custody issues must also be addressed.¹¹ As well as launching their own digital asset platforms, custodian and speciality banks have now launched initiatives to educate asset managers on how to safekeep digital assets.

Issues asset managers have to include whether the end-investor will keep hold of the assets and—if the asset manager does—what this will mean. “The main question for asset managers will be how to select providers and how many they need,” says Brackenridge.

Valuation

Once they have managed to buy and get exposure to crypto assets, and create products, asset managers will have to consider which third parties are able to publish a price every day and provide a valuation. A good custodian will help them continue meeting the objectives of their investment strategy even when there are wild moves in the marketplace.

Compliance

Having good custody and valuation also leads to better risk management and oversight, which are all connected in compliance. In the same vein, asset managers will also need third parties that allow them to be nimble. Regulations are expected to continue to evolve very quickly, creating situations where a strategy or asset may no longer be available to investors, or exposure to it will only be available through another fund structure or mechanism.



Emphasis on Operational Preparedness

To understand how respondents are positioned in this fraught context, the survey studied how much importance they placed on operational preparedness to support managing crypto assets. The overwhelming majority of respondents reported operational preparedness for crypto assets being critical to asset managers in maintaining a competitive edge (79%) (see figure 8).

Seventy-eight percent of respondents said that asset managers must grasp the operational implications of crypto assets now to avoid falling behind the curve.

This outlook is consistent with the urgency around developing a crypto offering, and suggests firms know that supporting crypto assets operationally is a critical challenge.

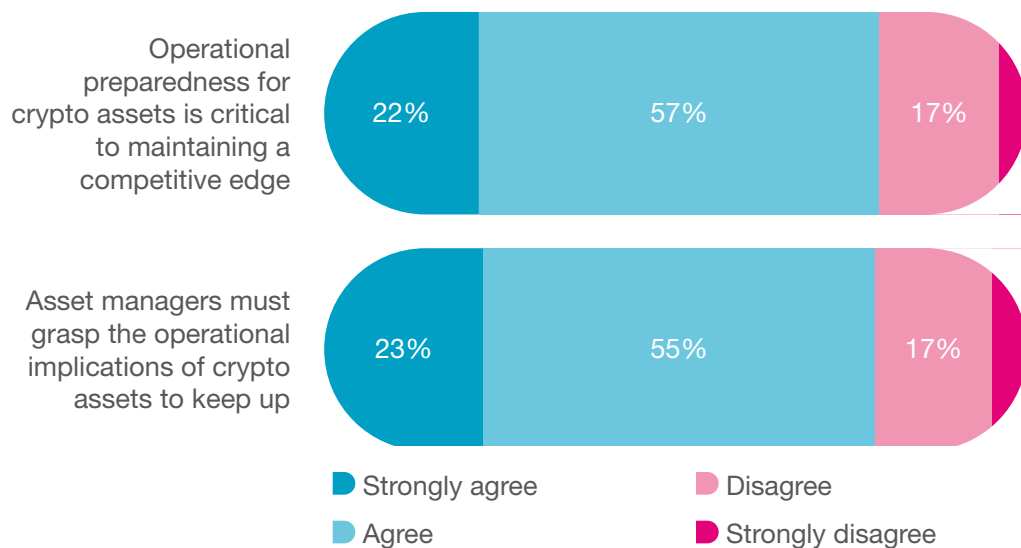
System Integrations and Operations

Next, respondents were asked to choose a statement that best fits how far their firm has progressed in system integrations and operations to support managing crypto assets. Seven in 10 firms said they are actively responding to the challenge of operational preparedness for crypto assets (see figure 9).

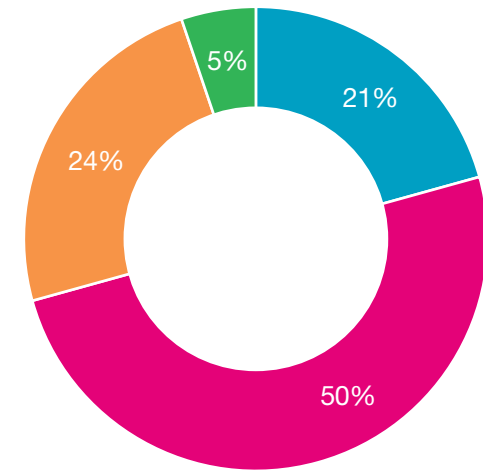
These results suggest respondents not only feel urgency around the operational challenge of supporting these assets, but that their firms are taking action and are on their way to developing the required systems and operations.

Of the respondents who said they are fully prepared to support crypto-asset investing operationally, 67% were portfolio managers. Portfolio managers determine whether a strategy is appropriate, and this drives the operations techniques of their businesses.

8 To what extent do you agree with the following statements?



9 How progressed is your organization's system integrations and operations to manage crypto assets?



- This is a priority for the business
- We are responding to the challenge of operational preparedness
- We have made no significant changes to our strategy for this purpose
- It is not clear to us how to support the management of crypto assets

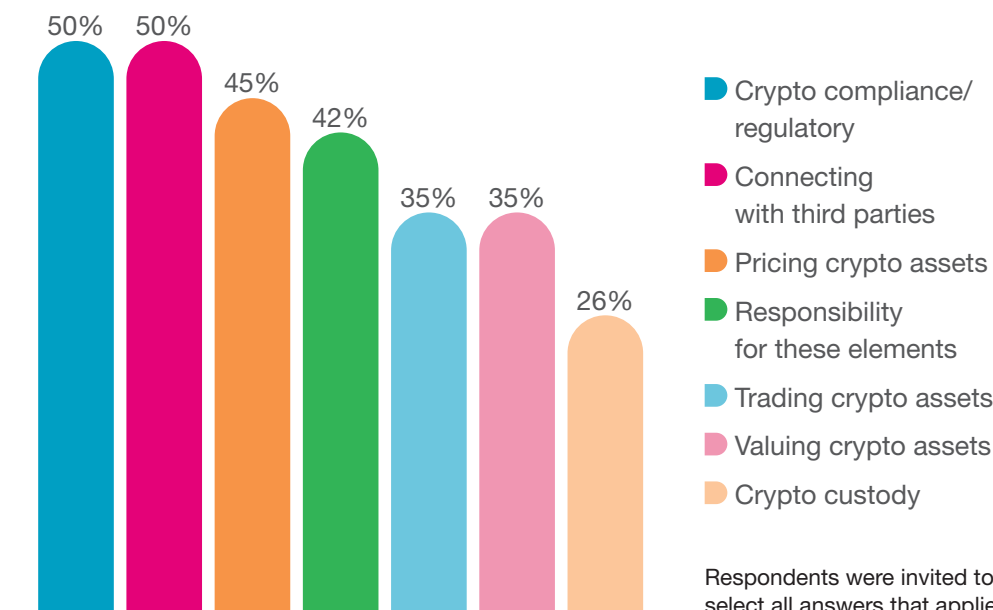
“People in operations technology are worried about falling behind. The results suggest their own firms and others may be further along in their planning than they realize and that their fears may be justified,” says Brackenridge.

Grasp of Operational Touchpoints

The survey also canvassed respondents on their consideration and understanding of the various parts of the operational processes they need to have in place to support crypto-asset investing. Half of respondents emphasized crypto regulatory compliance as an important operational touchpoint and half again cited connecting with third parties (see figure 10).

These results indicate that the front office is concerned with the practical questions around pricing and connectivity, and, from an internal perspective, asset managers are focused on compliance, and calculating and managing risk.

10 Which of the following touchpoints has your organization considered?



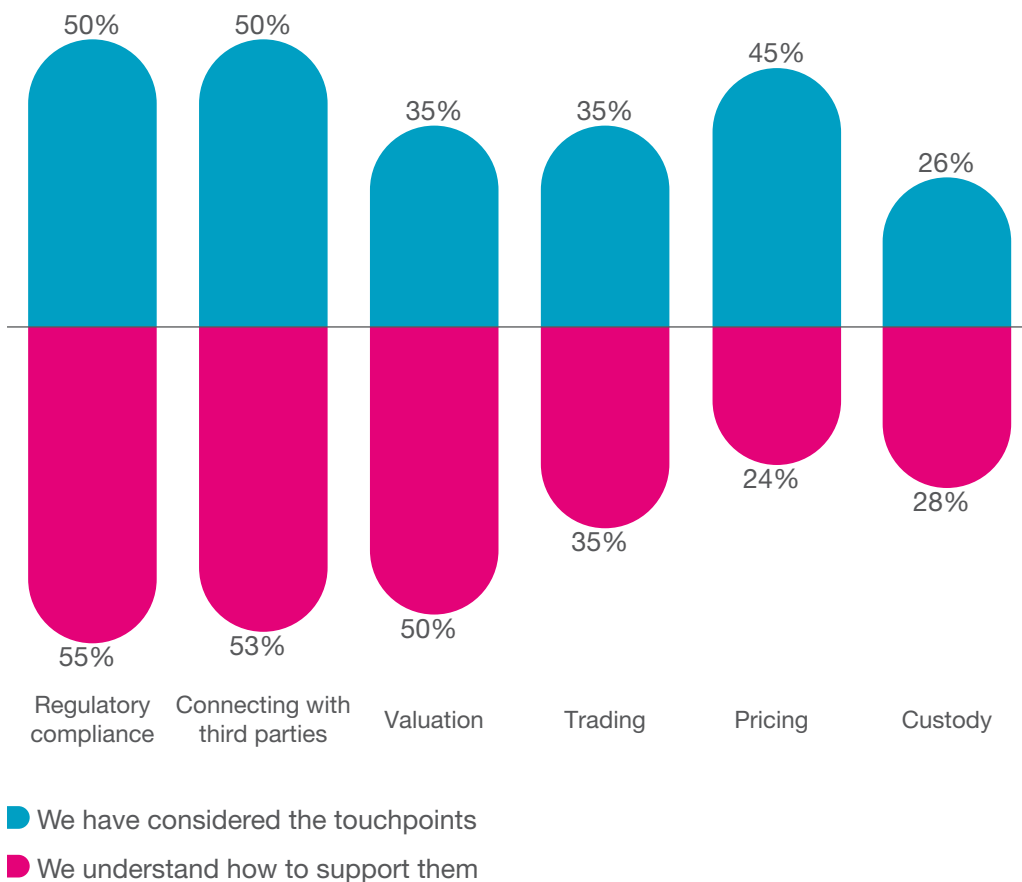
Respondents were invited to select all answers that applied.

There was a drop in percentages across the board when it came to respondents' understanding of how to support these touchpoints for crypto assets. The largest gap was in consideration and understanding of pricing. In contrast, respondents seemed relatively confident about managing the valuation of these securities (see figure 11).

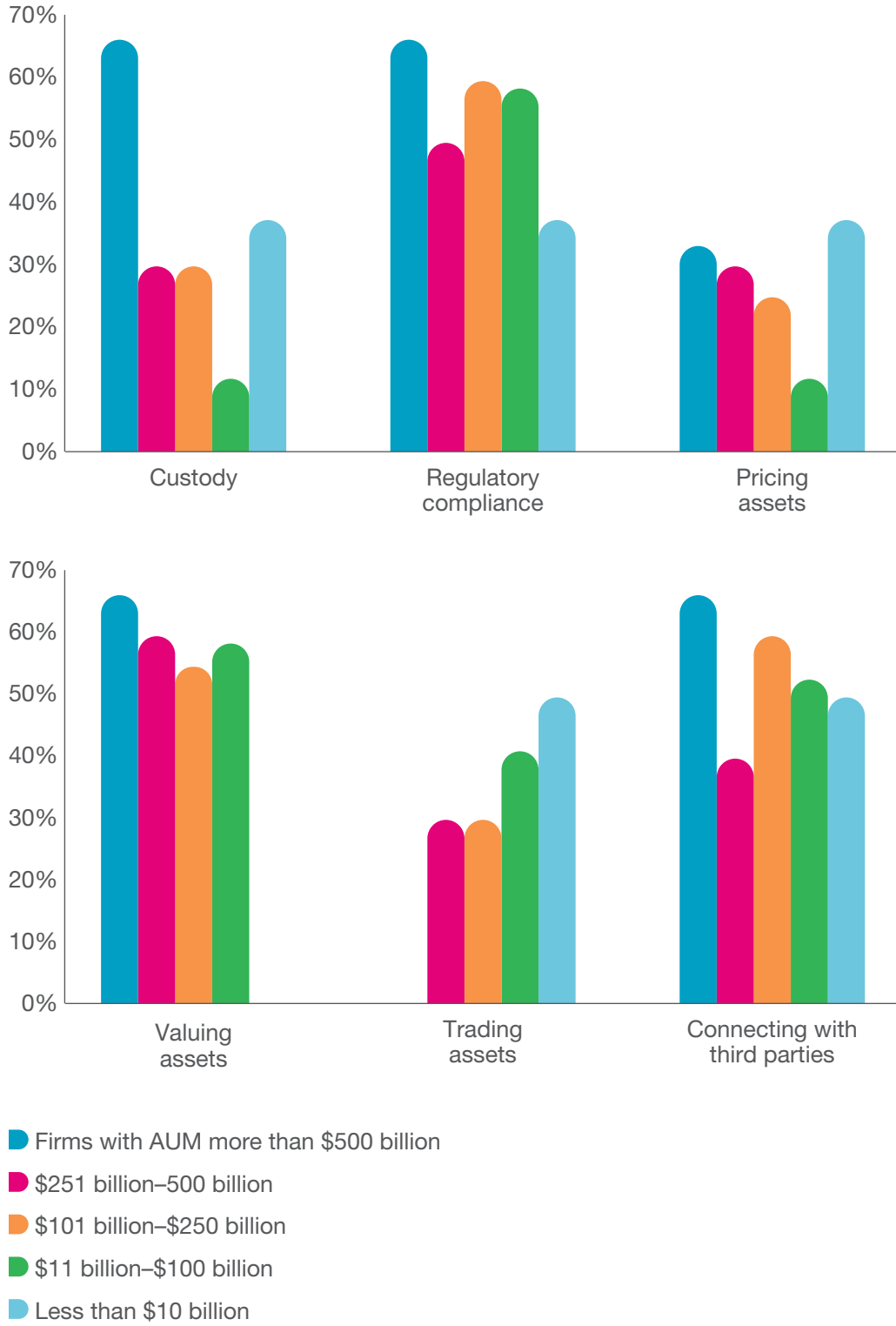
This shows that pricing of crypto assets is a unique challenge and probably the most perplexing operational touchpoint for firms. Accessing the real-time market price for such an asset is much harder than striking a net asset value on a portfolio at the end of the day. Valuation is done at a moment in time, but it can use average prices over a prior period, so it's somewhat easier to do.

The largest asset managers appeared to have a better understanding of all the operational touchpoints (see figure 12). This again shows that these firms are leading the way.

11 Have you considered the following touchpoints as part of your organization's operations and, if so, do you understand how to support them?



12 Firms (by AUM) that understand crypto-operational touchpoints in their own operations



Respondents were invited to select all answers that applied.

Smart Contracts, DLT and Blockchain as Operational Solutions

Use in Capital Markets

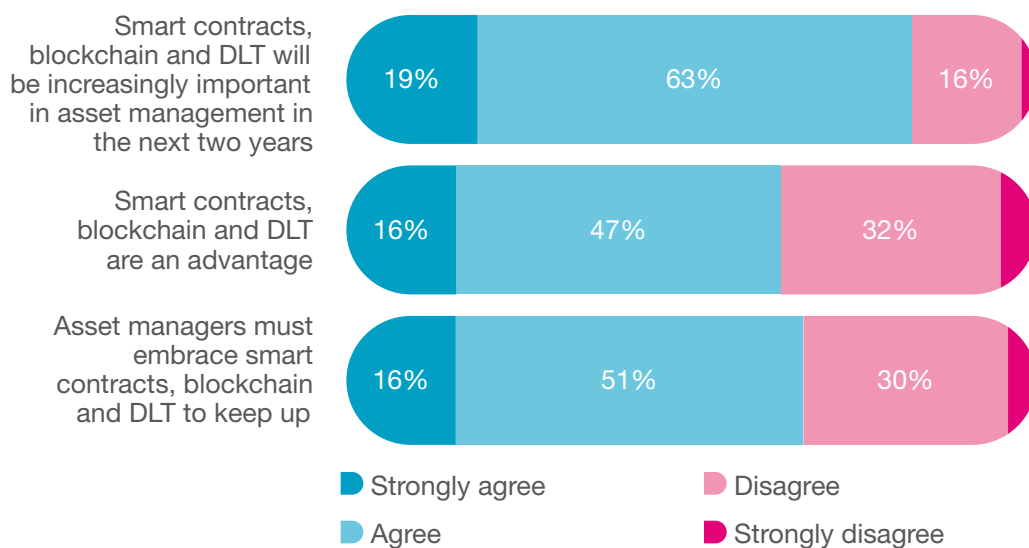
The rise of smart contracts, blockchain and other forms of DLT is reflected by dozens of industry initiatives. To name a few, LaSalle recently announced the move to put its direct real estate investing portfolio into a customized blockchain for digital asset control.¹² BNY Mellon recently moved some of its internal custody systems to distributed ledgers.¹³ And the Depository Trust & Clearing Corporation (DTCC) recently launched its Project Ion platform, which leverages DLT.¹⁴

For a decade, the industry has been expecting these technologies to revolutionize the financial system, with profound implications for investment operations. A future is envisaged where security settlement is performed instantaneously on an aggregated blockchain, managed by consensus of all firms, including the most systemically important financial institutions. In the meantime, DeFi is gathering pace, and DLT provides a secure way to trade assets and record those transactions simultaneously in multiple locations. Distributed ledgers are virtually tamper-proof, while smart contracts are automatically triggered to execute pre-agreed contractual obligations. These technologies can eliminate the need for intermediaries, increase transparency, reduce counterparty risk, and ultimately reduce transaction fees and operating costs.

Understanding the Benefits

With all the benefits to investment operations that smart contracts, blockchain and DLT provide, the survey first canvassed respondents on the importance they placed on them and their awareness of initiatives in this area. The overwhelming majority of respondents agreed that these technologies will play an increasing role in asset management operations in the next two years, are a source of competitive advantage, and should be embraced now to avoid falling behind the curve (see figure 13).

13 To what extent do you agree with the following statements?



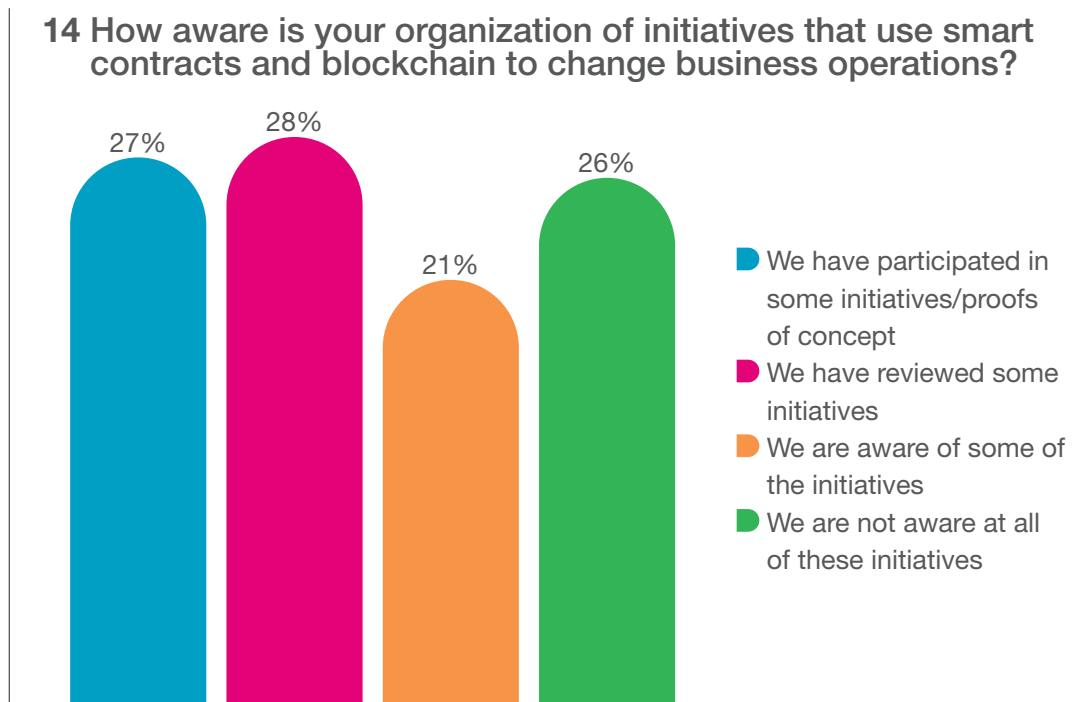
Next, respondents were asked how aware they are of the initiatives in this area. Over half said they were actively reviewing or participating in initiatives around using smart contracts and blockchain to change the operational business (see figure 14).

Stages of Integration

Respondents were asked about the stage they were at in their integration of smart contracts and blockchain as operational solutions. One in six respondents said they were actively testing or leveraging these technologies within the business, while more than half have considered the implications for their operations (see figure 15).

Respondents from the largest institutional asset managers said they have already started leveraging smart contracts and blockchain in their operations. This indicates that they are leading the way in this area. Since half of all firms have considered the implications to their operations, this also suggests smaller firms will not be far behind.

“The fact that 7% of firms are already using smart contracts or blockchain is amazing,” says Brackenridge. “It shows that asset managers are much further along than what is being put forward. When talking to asset managers you get a general sense that everybody’s talking about it but there’s not a whole lot going on. But the results show otherwise. This should encourage any asset managers to work out a plan if they haven’t already.”

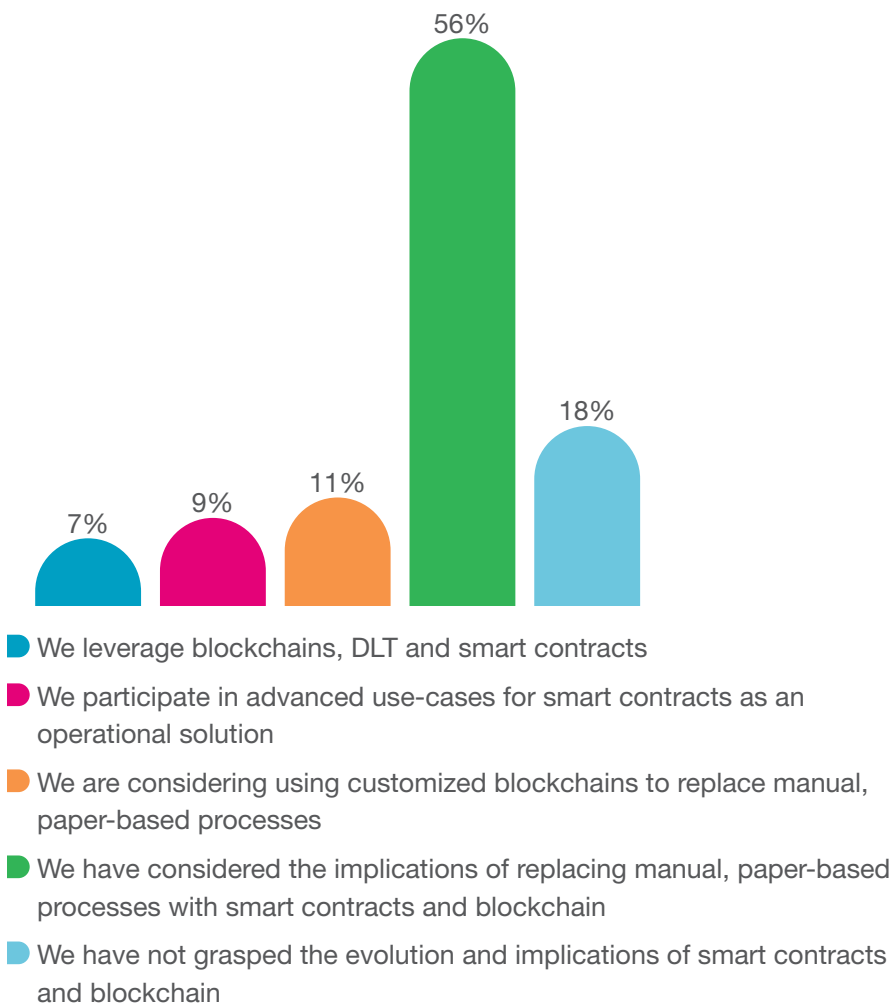


Of those who were actively testing or using these technologies, several firms cited automated transactions as the area in which blockchain provided the greatest value to their firm.

“The industry has been talking about this technology for a decade now, but it has struggled to find use-cases that firms could engage in. Automated transactions are a very practical use-case because the process is well defined,” says Brackenridge.

Asset managers can use these technologies on a bilateral basis with their counterparties. All of this will make this process simpler and more transparent—which is one of the main benefits of blockchain that respondents cited.

15 At what stage is your organization in integrating smart contracts and blockchain as an operational solution?



Conclusion

Asset managers are further along in crypto adoption than originally thought, based on findings from a cross-section of managers from North America, Europe and APAC. Many are beginning to embrace crypto-asset investing and some are already offering products in this space. One in five firms are fully prepared with the systems integrations and operations to support crypto-asset investing. Half of firms are still responding to this challenge.

It is apparent that firms are grappling with the touchpoints for handling these assets in their investment operations. They are focused mainly on pricing, compliance and connectivity with third parties. They are trying to understand how to represent these crypto investments, how to manage them within their operational processes and how to report on them. The market is, in most respects, still in its early development stages, and there are very tricky aspects such as pricing which are far from being standardized. But there are several industry initiatives under way to develop the market and offer standards. And there are opportunities to connect with third parties who can help firms with all these touchpoints, such as getting better quality prices, or from a compliance and risk management perspective.

Nearly one in six firms are actively testing or using smart contracts and blockchain as part of their operations. Firms have chosen practical use-cases such as automated transactions in internal systems or with counterparties.

This is not the transformative network effect the financial services industry has been dreaming of—where security settlement is undertaken instantly on an aggregated blockchain, managed by the most systemically important financial institutions. These kinds of industry-changing dynamics haven't yet materialized. But firms are beginning to use these technologies at a practical level and are acknowledging the benefits of DLT in terms of improvements to operational processes, efficiency and transparency.

This can certainly put firms leveraging blockchain technologies operationally at a competitive advantage in developing and managing crypto-asset offerings. But, even for asset managers who are not, the message is quite clear—crypto-asset investing is here and the development of products at the institutional level is further along in its evolution than conventional wisdom might suggest. Fears over being left behind are justified, all of which points towards the need for asset managers to work out strategies and action plans now to position themselves to take advantage of the evolving crypto market opportunity.

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If ensuring that your firm is operationally prepared to capitalize on the opportunity around crypto-asset investing is on your mind today, Linedata's award-winning service teams are listening and ready to help drive your business forward.

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