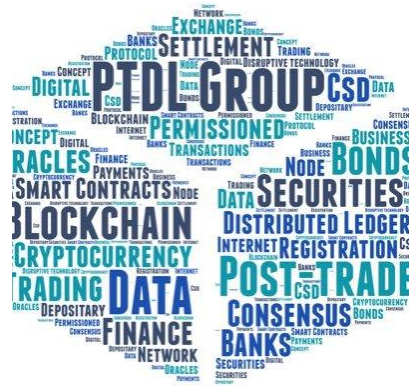


Survey & Report: 'Open-Source Ideas'

Part I: Examining the State of Blockchain Technology & Buy Side Adoption



GBBC
Global Blockchain
Business Council



Janus Henderson
— INVESTORS —

4 December 2019

London, United Kingdom



Introduction

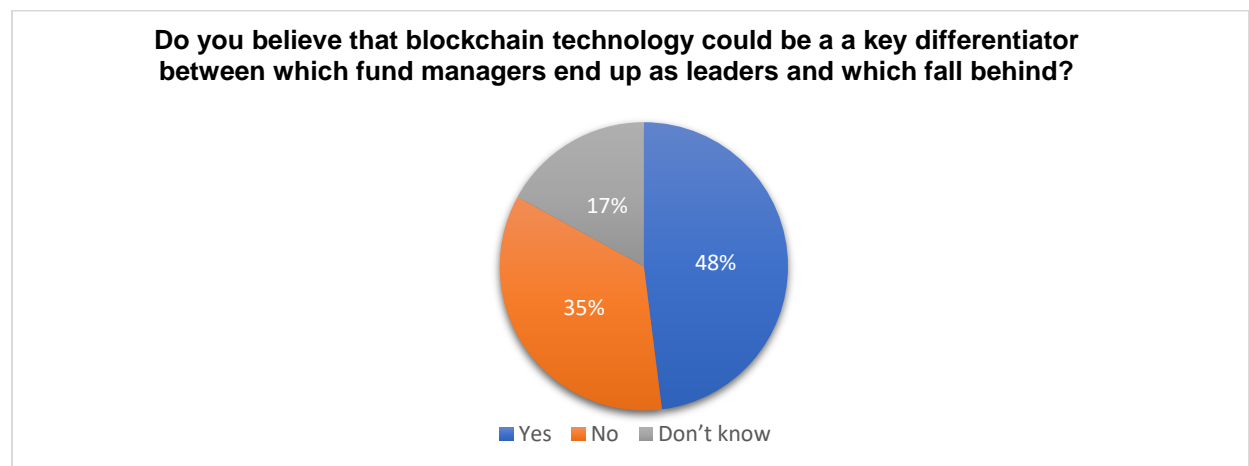
In 2018, after nearly a decade of growth, the global asset management industry faltered with the value of assets under management (AuM) falling 4 percent globally. This dip may have served as the catalyst for firms to seriously reassess their growth strategies for the future.ⁱ Research from State Street found that 66 percent of institutional investors believe that achieving growth has become increasingly difficult and that most firms do not have the “right strategy, operating model and technology infrastructure in place to reach their full growth potential in these conditions.”ⁱⁱ

As the global buy side industry undergoes a period of change driven by growing competition, sharpening client demands, regulatory developments, and shrinking margins, new technologies, like blockchain and distributed ledger technologies (DLT), have emerged as potential differentiators between the fund managers that end up as leaders and the ones that fall behind.

Under this context, the Global Blockchain Business Council’s (GBBC) Post Trade Distributed Ledger (PTDL) Group partnered with Janus Henderson Investors to survey over fifty buy side asset managers, sovereign wealth funds (SWFs), and hedge fund managers across the globe on the development of blockchain technology, the industry’s approach to the technology, potential impacts, and challenges.

Survey Findings

Our research found that 49 percent of industry respondents believe blockchain technology could be a key differentiator between which fund managers end up as leaders and which fall behind. In addition, 64 percent said that a majority of asset managers will be using blockchain technology for one or more parts of their business within the next ten years.



Source: GBBC / PTDL and Janus Henderson Survey of Fund Managers



As emerging technologies take center stage, new opportunities will emerge in the buy side industry to improve operational efficiencies, lower costs, and better service clients, further widening the gap between adopters and stragglers. Industry respondents said blockchain would have a significant impact on the following issue areas over the next five years:

- Fees and costs
- Compliance and regulation
- Data management

When asked to identify the most significant benefits of blockchain-based solutions, 76 percent of industry respondents said improved clearing and settlement capabilities and 73 percent said increased operation efficiency and lowering costs.

As analysts point to a possible “squeeze scenario” in the buy side industry, in which volumes grow while margins shrink, buy side players are increasingly incentivized to investigate the potential of new technologies to increase operational efficiencies and lower costs.ⁱⁱⁱ In the case of blockchain, industry cost savings have been estimated at \$2.7 billion per year.^{iv} Over time, the adoption of blockchain technology could fundamentally reorder and disintermediate value chains, creating new challenges for market players while also creating significant opportunities for cost savings.

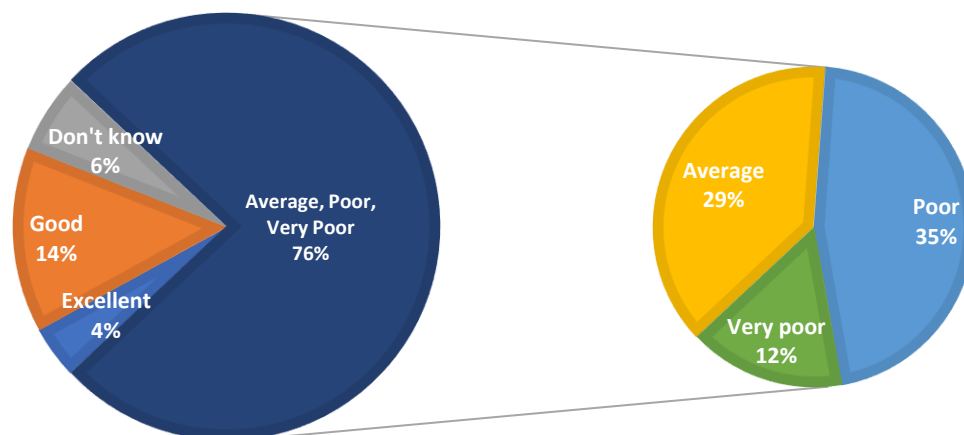
Furthermore, the adoption of blockchain-based solutions for clearing and settlement processes could drastically reduce settlement times, thereby “reducing counterparty risk and [enhancing] collateral management”.^v The nature of blockchain technology - a shared ledger of transactions - would also render many reconciliation and support functions redundant, bringing significant improvements to data management.

Blockchain’s ability to automate onboarding procedures, as well as know your client (KYC) and anti-money laundering (AML) processes, could significantly reduce the time spent on these tasks, improving operational efficiency. At the same time, blockchain technology could significantly improve reporting and oversight capabilities, thereby addressing many of the regulatory and compliance issues and requirements facing asset managers.

Despite overall optimism in blockchain’s potential, 76 percent of industry respondents described the level of understanding of blockchain amongst senior executives as either average, poor, or very poor. Additionally, 82 percent of industry respondents described the industry’s approach to blockchain and investigating its potential as either average or poor. Industry respondents identified a lack of understanding and a lack of technical expertise as the biggest challenges facing the asset management industry in terms of its adoption of blockchain technology.



How would you describe the level of understanding of blockchain amongst senior executives within the fund management industry?



Source: GBBC / PTDL and Janus Henderson Survey of Fund Managers

By recent estimates, fewer than 10 percent of firms are focused on recruiting blockchain expertise, even though 70 percent of firms believe blockchain will have a significant impact on their business over the next five years.^{vi} As blockchain technology and solutions continue to materialize and improve, it remains to be seen whether buy side firms will focus on attracting blockchain expertise and increasing understanding of the technology amongst senior executives.

In any case, the role of organizations like the GBBC and PTDL, which are focused on educating decision makers on the benefits of blockchain technology, will continue to be vital.

Outlook and Notable Examples

In the next few years, development of blockchain-based solutions will accelerate in the financial services sector, ushering in an era of change in an industry that has “remained fundamentally the same since the last decade of the 20th century.”^{vii} Ultimately, buy side players will remain focused on capturing new growth opportunities, and firms will likely trend toward embracing new technologies as drivers of positive change.

The recent announcement that Charles Schwab will acquire TD Ameritrade exhibits how some of the largest participants in the industry are searching for competitive advantages in a stagnant industry, and “reflects the shift from a commission-heavy revenue stream to one more reliant on interest income and other client services”.^{viii} While Charles Schwab has been skeptical of blockchain and cryptocurrency, TD Ameritrade has embraced it by offering bitcoin futures trading



and investing in ErisX, a regulated digital asset derivatives exchange and clearing organization; executive VP Steven Quirk said in May that interest in digital assets has been “off the charts” from both Registered Investment Advisers (RIAs) and retail investors.^{ix}

However, in this space, Fidelity has been the brand name leader, most recently with Fidelity Digital Asset Services receiving a charter from the New York State Department of Financial Services (NYDFS) that allows it “to provide a virtual currency custody and execution platform, on which institutional investors and individuals can securely store, purchase, sell, and transfer Bitcoin.”^x For its part, Coinbase Custody announced in June 2019 that it has over \$1.3 billion in assets under custody (AUC) and “services over 90 clients. Of those, approximately 40% are outside of the U.S.”^{xi}

As evinced by our research, nearly half of industry respondents believe blockchain technology will emerge as a differentiator between the fund managers that end up as leaders and those that fall behind. Our findings serve to highlight the role blockchain will play in the asset management industry over the next ten years, and the areas where asset managers expect the technology to have the most profound effect: improving clearance and settlement and increasing operational efficiencies.

Firms are already predicting that DLT will begin to redistribute the value chain in the next 2-3 years, meaning that active engagement is essential.^{xii} Buy side firms will need to determine the right digital transformation plan, including whether to invest in blockchain. As a respondent stated, the “very nature” of blockchain initiatives “requires collaboration, thus approaching this as part of a consortium with common objectives would seem the obvious route.”

In the trading space, Legg Mason, Merian Global, and Aberdeen Standard Investments have “signed on to a new system launched” by fintech firm FNZ, “to replace the complex patchwork of IT involved in retail investors’ buying and selling of mutual funds with a single distributed ledger.”^{xiii} In May 2019, Calastone, the largest global funds network, announced that they would be moving their entire network of more than 1,700 financial organizations to the company’s new blockchain-based Distributed Market Infrastructure (DMI). In using DMI, Calastone hopes to create an “ecosystem within which the trading, settlement and servicing of funds is friction free, eliminating ever-growing risk and costs for fund managers and investors, embedded within the current system.”^{xiv}

Buy side behemoths BlackRock and Vanguard have also waded into the blockchain space. Since February 2019, Vanguard has used Symbiont’s blockchain-based system to manage index data,



replacing Vanguard’s “old system of manual updates.” The new process has eliminated manual data pulling processes and manual reconciliation and is designed to prevent Vanguard from “having to trust [a third party] to keep the data safe.”^{xv}

In 2017, BlackRock began testing a private blockchain platform, dubbed Aladdin Provider, for its bank custody partners. According to BlackRock chair and CEO Laurence Fink, Aladdin Provider will ultimately “simplify [BlackRock’s] trading [and] trade entry compliance working alongside the custodial bank to create so much more efficiency for users across the Aladdin system.”^{xvi}

APG and PGGM, managers of the two largest Dutch pension funds, began testing a blockchain system in 2017 to make administering pensions easier. In a joint statement, the pension fund managers said the new system would be more secure and cheaper to operate than the existing system.^{xvii}

Collaboration in this space is important, as a survey respondent noted “it is difficult to get [other firms] to partner for blockchain case studies.” In examining the financial industry’s blockchain consortia, early “sell-side dominance” in blockchain and DLT was focused on participation in consortia, like R3.^{xviii} Although the sell side has traditionally outpaced the buy side in terms of adoption, there are a growing number of projects emerging from both consortiums and internal efforts aimed at capturing value from the adoption and deployment of blockchain technology.

Rise of Cryptocurrencies and Digital Assets Funds, New Growth Driver?

Separately, in the past three years we have witnessed the explosive growth of crypto funds. As of Q1 2019, there were an estimated 150 active crypto hedge funds with a collective \$1 billion AuM.^{xix} This would support the thinking by one industry respondent, that “buy side entities will ‘adopt’ blockchain technology primarily through ownership of [virtual currencies] as a jumping off point.”

Earlier this year, the Fairfax County’s Virginia’s Police Officer’s Retirement System and Employees’ Retirement System invested \$55 million in crypto-focused Morgan Creek Digital’s second venture fund, up from their previous \$21 million investment.^{xx} Other notable examples include the decision by influential fund manager David Swensen to invest some of Yale University’s \$29.4 billion endowment in Andreesen Horowitz’s inaugural \$300 million crypto fund. In February 2019, The University of Michigan also announced that it planned to double down on its initial \$3 million investment in the cryptonetwork technology fund (CNK Fund I) managed by Andreesen Horowitz.^{xxi}



A few sovereign wealth funds have also followed suit. The Abu Dhabi sovereign wealth fund, Mubadala Investment Capital, invested in MinChains, an Abu Dhabi-based cryptoasset exchange, through its investment arm. GIC Private Limited, Singapore's sovereign wealth fund, reportedly invested in cryptocurrency exchange Coinbase.^{xxii}

Next Steps

Compared to five years ago, the asset management industry, in select areas such as crypto fund investment, compliance transparency, and efficient trade data management use cases, has made progress adopting new technologies. However, it is very early days for the buy side industry, and we anticipate new winners and losers will emerge over the next decade, similar to what we are seeing unfold in the banking sell side sector.

The GBBC's (parent organization of the PTDL) "Open-Source Ideas" Series will continue to survey and document the evolution of the buy side industry as it adapts to a rapidly digitizing and technology-driven future. Part II of this Series, in collaboration with Norton Rose Fulbright, will focus on legal and regulatory challenges facing the buy side and how emerging technology like blockchain and DLT can help or create competitive advantages (anticipated release 2Q20).

The GBBC and PTDL welcome global community feedback and comments, as we seek to better understand the implications of how emerging technology and our applications of such technology are changing our world, and in this case, the buy side industry.

Have any ideas for Part III? Please send any comments to: buyside@gbbccouncil.org

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The Global Blockchain Business Council (GBBC) is the leading industry association for one of the most impactful technologies to emerge since the inception of the internet. Just as the internet enabled the frictionless peer-to-peer exchange of information, blockchain facilitates the frictionless, digital exchange of value. GBBC brings together innovative organizations and founding thought-leaders from over 50 countries to advance understanding of blockchain technology amongst governments, regulators, business leaders and change-makers.

The Post Trade Distributed Ledger (PTDL) Group includes nearly 40 financial institutions and prominent market infrastructure players from all regions of the globe whose shared vision of the use of distributed ledger technology has brought them together. The PTDL Group provides a trusted environment for key post-trade participants to collaborate and share information for the best interests of our industry. The PTDL engages in activities relating to how distributed ledger technologies will transform the post-trade landscape.

Janus Henderson Group (JHG) is a leading global active asset manager dedicated to helping investors achieve long-term financial goals through a broad range of investment solutions, including equities, fixed income, quantitative equities, multi-asset and alternative asset class strategies.

Janus Henderson has approximately US\$356.1bn in assets under management (at 30 September 2019), more than 2,000 employees, and offices in 28 cities worldwide. Headquartered in London, the company is listed on the New York Stock Exchange (NYSE) and the Australian Securities Exchange (ASX).



ⁱ http://image-src.bcg.com/Images/BCG-Global-Asset-Management-2019-Will-These-20s-Roar-July-2019-R_tcm9-227414.pdf

ⁱⁱ http://www.statestreet.com/content/dam/statestreet/documents/Articles/Growth2025_Digital.pdf

ⁱⁱⁱ <https://www.accenture.com/acnmedia/pdf-94/accenture-capital-markets-vision-2022.pdf>

^{iv} <https://www.ft.com/content/b6171016-171f-11e8-9e9c-25c814761640>

^v https://www.esma.europa.eu/sites/default/files/library/dlt_report_-_esma50-1121423017-285.pdf

^{vi} http://www.statestreet.com/content/dam/statestreet/documents/Articles/Growth2025_Digital.pdf

^{vii} <https://www.pwc.com/gx/en/asset-management/asset-management-insights/assets/awm-revolution-full-report-final.pdf>

^{viii} washingtonpost.com/business/2019/11/25/charles-schwab-will-acquire-td-ameritrade-creating-wealth-management-goliath-with-trillion-assets/

^{ix} <https://www.coindesk.com/td-ameritrade-exec-tens-of-thousands-of-our-clients-are-interested-in-crypto>

^x https://www.dfs.ny.gov/reports_and_publications/press_releases/pr1911191

^{xi} <https://twitter.com/CoinbaseCustody/status/1139252627521204224>

^{xii} <https://www.gbm.hsbc.com/insights/securities-services/distributed-ledger-technology>

^{xiii} <https://www.fnlonon.com/articles/asset-managers-partner-with-fintech-for-blockchain-fund-sales-20190430>

^{xiv} https://www.calastone.com/news/calastone-launches-world-first-blockchain-powered-global-funds-marketplace-in-may-2019/?mod=article_inline

^{xv} <https://www.forbes.com/sites/jeffkaufflin/2019/05/30/vanguard-is-now-using-blockchain-technology-to-help-manage-13-trillion-in-index-funds/#21e1cfba8dfe>

^{xvi} <https://www.ai-cio.com/news/blackrock-testing-private-aladdin-based-blockchain-custodians/>

^{xvii} <https://www.reuters.com/article/us-netherlands-pensions-blockchain/dutch-pension-fund-managers-agg-pggm-test-out-blockchain-system-idUSKBN1CLONH>

^{xviii} <https://www.ibm.com/downloads/cas/K5JGKJR6>

^{xix} <https://www.pwc.com/gx/en/financial-services/fintech/assets/pwc-elwood-2019-annual-crypto-hedge-fund-report.pdf>

^{xx} <https://www.coindesk.com/pension-funds-put-50-million-into-morgan-creeks-new-blockchain-fund>

^{xxi} <https://regents.umich.edu/files/meetings/02-19/2019-02-IX-1.pdf>

^{xxii} <https://www.bloombergquint.com/markets/singapore-wealth-fund-said-to-invest-in-crypto-exchange-coinbase#gs.9oLbk65U>