

Modernizing Retirement Savings

Technology, Innovation, and Alternative Investments in Defined
Contribution Plans

November 2024

DCALTA
Defined Contribution
Alternatives Association

www.dcalta.org

Letter from DCALTA

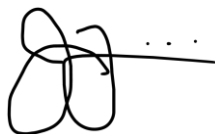


Jonathan R. Epstein
President, DCALTA

At the end of the 2023, employer-sponsored U.S. defined contribution (DC) plans contained \$10.6 trillion ¹in DC assets, and looking back just 20 years, they held \$3.2 trillion. This expansive growth can be attributable to many factors, with the impetus for automatic enrollment and fiduciary relief for plan fiduciaries introduced in the Pension Protection Act of 2006. Further, many auto features have been implemented into DC plans from automatic participant deferral increases to auto enrollment. However, the term “automatic” sounds easy enough but there must exist a technology component involved to properly execute on any transaction and with a formal process. This paper will shed light on the positive impact of technology on defined contribution plans and its impact on facilitating broader access to diversifying assets.

In contrast to the rapid growth of alternative investments by institutional investors and broad adoption by defined benefit plans, DC plans have largely foregone the diversification and return potential of alternatives because of technical and legal uncertainties. If we look at retirement plan types in the U.S. as large pools of capital and delve into their allocations across investment types, a glaring mismatch exists. DCALTA will continue to educate stakeholders on the benefits of providing greater access to diversifying assets in DC plans. Thanks to our Alts Technology & Innovations Committee members for their contributions and insights on key areas of technological importance and their impact on the U.S. retirement system.

DCALTA’s mission is to **enhance and secure participant outcomes** through education, research, and advocacy on the benefits of including different types of alternative investments within a defined contribution framework. Our members represent many facets of the U.S. retirement investment ecosystem, and we strive to be the industry’s resource and collective voice on both policy and operational topics. Our collection of whitepapers are designed to educate plan sponsors and other constituents on the inclusion of alternatives in DC plans and with greater technical certainty.

A handwritten signature in black ink, consisting of a stylized, cursive 'J' and 'E' followed by a horizontal line and three dots.

DCALTA
DEFINED CONTRIBUTION
ALTERNATIVES ASSOCIATION

¹ [Release Quarterly Retirement Market Data Fourth Quarter 2023.pdf](#)

Executive Summary

Originally introduced in the U.S. in the late 1970s as a supplement to defined benefit pensions, defined contribution (“DC”) plans quickly grew in popularity due to their flexibility and tax advantages. Today, DC plans like 401(k)s hold close to \$11 trillion in participant savings and are the predominant retirement savings vehicle in the U.S. Retirement legislation and regulatory frameworks have contributed to the remarkable growth of DC retirement plans. However, technology has undoubtedly been a catalyst for feature enhancements beneficial to participants. Computerization, software applications, the internet, and fintech have enabled successive waves of innovation that have improved – in broad brushstrokes – access, administrative costs, enrolment, understanding, and customizability for participants.

With legislative and regulatory developments on the one hand, and the looming disruption of quantum computing and AI technology on the other, there is a clear sense that the next wave of innovation is imminent. The question is, *how will it impact DC plans?*

Drawing inference from how DC plans have harnessed past innovation waves, initial applications will likely focus on enhancing participant-facing services. However, DCALTA members believe that this latest innovation wave will also target key functions of the investment operations layer, facilitating the inclusion and uptake of diversifying investments in DC plans. For instance, early adoption of technologies like valuation AI, blockchain, and others is already underway by forward-leaning alts asset managers and asset owners. Technologies targeted at enhancing efficiency and scalability of alts operations will likely be adopted by asset managers to optimize liquidity, refine investment strategies, improve reporting and transparency, and customize solutions adhering to ERISA requirements.

As more DC plans access and diversify investments, it is likely that reporting transparency will broaden the scope from its current focus on fees to include returns indexing, sources of value, and performance reporting. As a result, DCALTA believes this innovation wave will see existing software platforms integrate new data science technology components to meet the information needs of motivated participants.

For their diversifying effects and unique access to the growth portion of the market, it is widely agreed that the inclusion of alts in DC retirement savings plans can strengthen the retirement outcomes of participants. Similarly, in June 2020 the U.S. Department of Labor issued a letter clarifying its positive position on including alts in DC plans. Then in December of 2021, the DoI issued a Supplemental Statement for PE in DC plans and noted the importance of plan fiduciaries to determine that an investment that includes PE is prudent and made solely in the interest of plan participants and beneficiaries. However, realizing meaningful access and benefits for participants requires more than a handful of participant-facing features. In this innovation wave, asset managers should embrace transformational technological advancements and modernize their investment operations.

By leveraging technology effectively, industry can embrace alts in DC plans through strategic and differentiated manners, ultimately strengthening the retirement security of millions of individuals across the nation.

Contents

History of DC Plans and Alternative Investments	p.5
Evolution of DC Plans	p.6
The Evolution of Alternative Investments and Technology	p.7
Key Roles and Responsibilities for Technology	p.7
Innovation in Technology for Today and Tomorrow	p.9

Acknowledgements

DCALTA gratefully acknowledges the contributions of members of the Alts Technology & Innovations Committee, and the content group for sharing their knowledge and expertise. Our content group consists of the following individuals:

Serge Boccassini, DCALTA Board Chair
Scott Brooks, Conduit Private Partners
Crystal Bueno, DTCC
Adam Farrell, CAIS
Michael Keogh, iCapital
Thomas C. Lauer, Northern Trust
Patrick D. O’Meara, Inveniam
Lauren Rodriguez, DTCC
Justin Schwartz, DTCC
Seth Adam Stuart
Noah Weeks-Brittan, CAIS

The positions stated in this document are those of DCALTA and may not be the positions of the individuals or organizations listed above.

About DCALTA

DCALTA seeks to enhance the retirement security of DC plan participants by the inclusion of alternative assets:

- As a modest allocation within a long term focused, multi-asset fund option on a DC plan menu.
- Through a well-diversified portfolio of alternative assets.
- Professionally managed within a prudent structure designed for the needs of DC plan participants.

Introduction

Since the enactment of the Revenue Act of 1978, which paved the way for the establishment of 401(k) plans, the landscape of retirement savings in the United States has undergone significant transformations. Defined contribution (DC) plans have emerged as the primary retirement benefit for millions of Americans, holding close to \$11 trillion in savings. However, despite their widespread adoption, DC plans have historically faced limitations in accessing alternative investments, particularly private market assets.

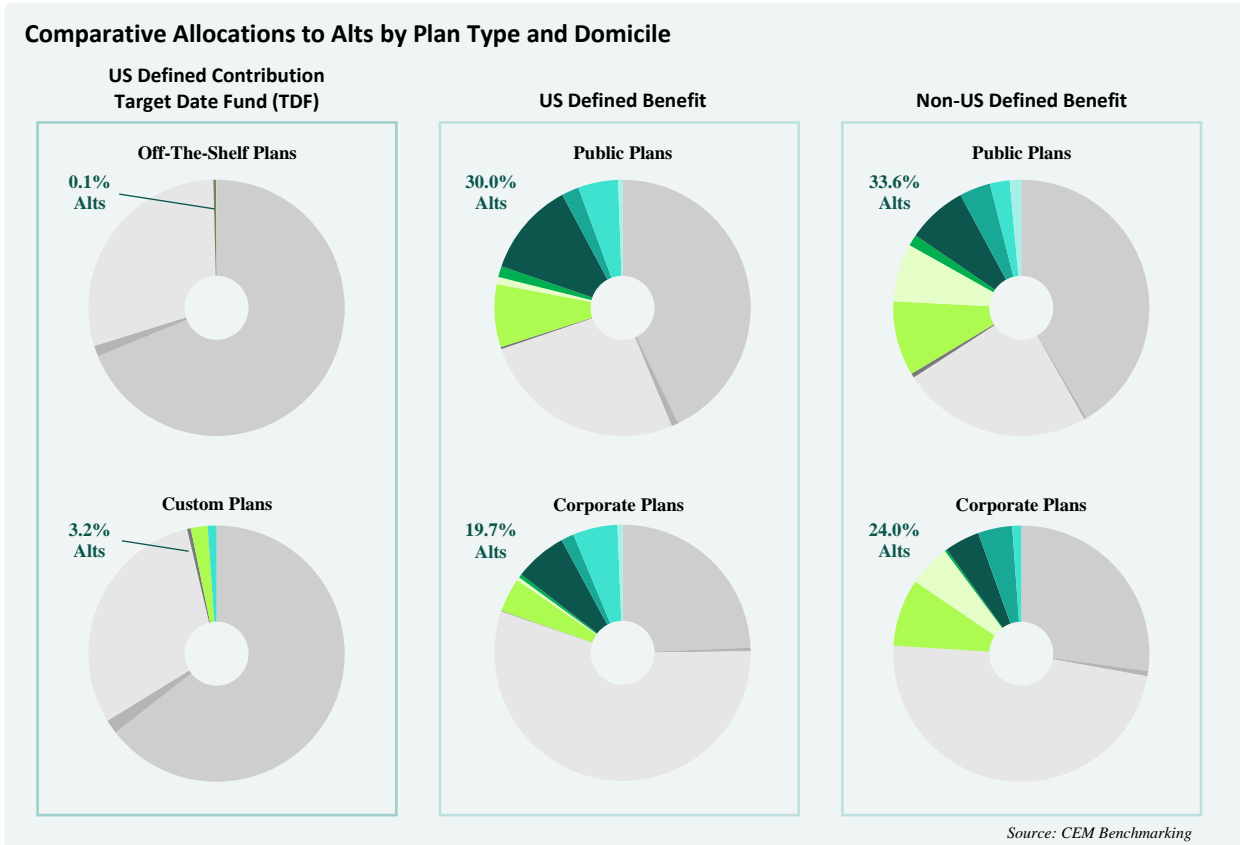
In this era of rapid technological advancement, the retirement ecosystem is experiencing a paradigm shift, driven by innovative solutions aimed at enhancing operational efficiencies, transparency, and performance measurement within DC plans. The emergence of organizations like the Defined Contribution Alternatives Association (DCALTA) underscores the collective efforts to address key challenges in operations and the use of alternative investments. These operational and technology improvements allow for modernization of the fiduciary framework governing these plans.

This paper explores the pivotal role of technology and innovation in expanding the landscape of defined contribution plans. From the evolution of valuation

methods to the development of automated trading platforms, technological advancements have revolutionized how DC plans operate, offering participants greater access to diversifying investments and strategies previously reserved for defined benefit plans.

Furthermore, legislative reforms such as the Pension Protection Act of 2006 have incentivized the adoption of qualified default investment alternatives (QDIAs) like target date funds and managed accounts, driving higher participation rates and empowering individuals to build healthier retirement balances. From a regulatory viewpoint, the DOL Information Letters have provided guidance acknowledging the use of private markets investments in DC plans.

As we delve deeper into the evolution of defined contribution plans, it becomes evident that the fusion of technology and innovation holds the key to unlocking greater diversification opportunities for retirement investors. By leveraging these advancements, stakeholders can navigate volatile markets by optimizing a broader array of investment strategies, and ultimately, empowering plan participants to achieve their long-term financial goals.



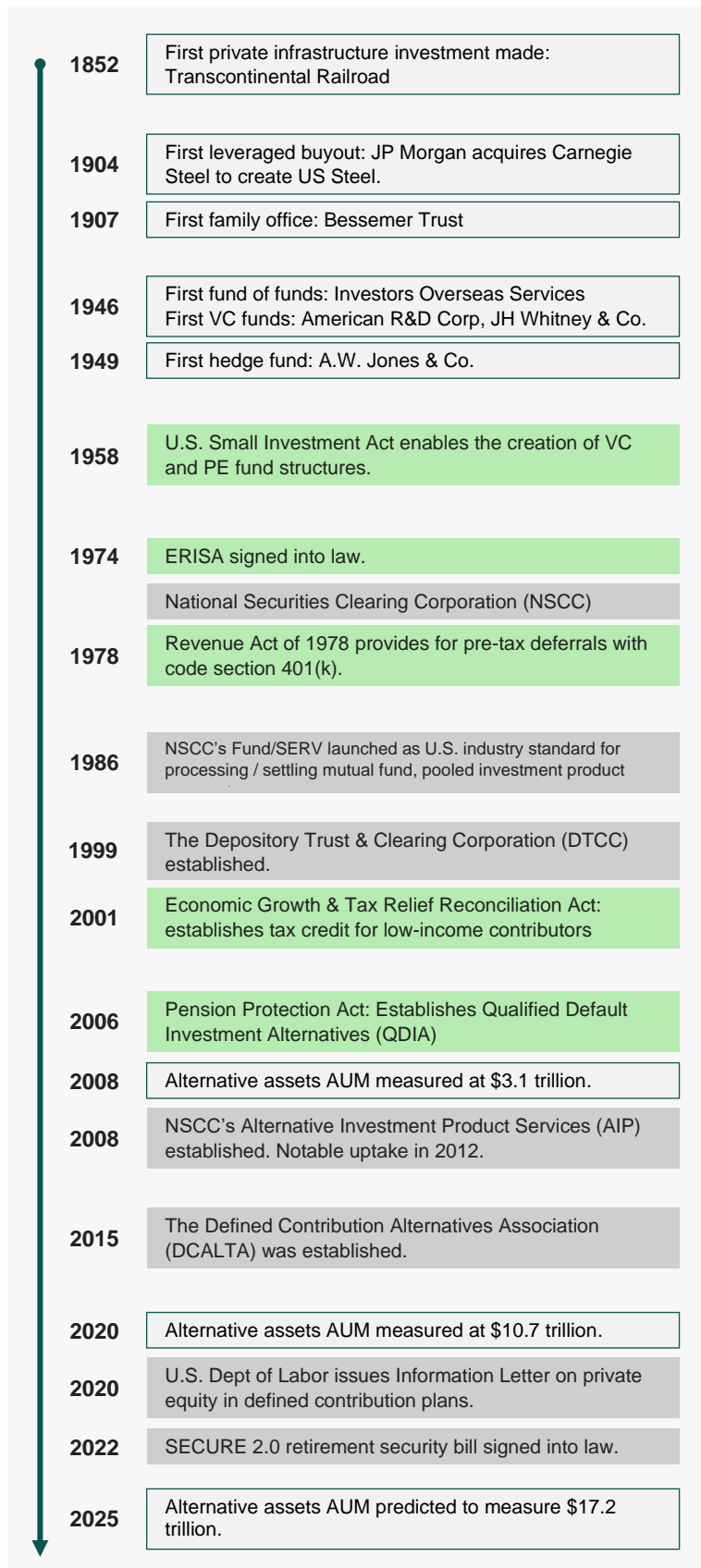
History of Defined Contribution Plans and Alternative Investments

As the timeline shows, what is often referred to as alternative assets have existed since long before the advent of defined contribution savings plans. The signing into law of ERISA in 1974 (a result, in part, of the 1963 Studebaker-Packard Corporation defined benefit plan failure) and the Revenue Act of 1978 were instrumental in initiating the tremendous growth of defined contribution plans to become the primary retirement benefit for U.S. savers. In the early stages of plans, most plan sponsors and recordkeepers utilized the “balance forward” method of valuation where earnings allocations were estimated and posted using time weighted cash flows. As period end numbers were not established until 2-4 weeks after the actual valuation date, participant requests were processed well after their effective date. Much of the delay resulted from the need to gather paper statements from fund companies and investment managers as well as the length of time in the processing/audit process at the recordkeepers and trust/custodians.

While the balance forward method did a satisfactory job of earnings allocation, industry changes began to offer opportunities for improvement. Daily valued mutual funds grew in both firm registration and eventual uptake, allowing for faster turnaround in balance forward valuation and allocation though certain flaws continued to exist. Many of those flaws presented themselves in a significant manner during the extreme market conditions of October 1987. The event of October 19th occurred during the period when monthly/quarterly valuations were in the process of being completed and subsequent cash flows had a large negative impact on many plan participant accounts. At that point, it became clear that an expedited and equitable application method would be needed.

Legend

- U.S. regulatory & legislative events
- Operational, clearing and settlement milestones
- Alternative investment milestones



Evolution of Defined Contribution Plans

The use of daily valued mutual funds ushered in a model that allowed sponsors to value their plans daily and allow participants to trade based on a daily price. This new model greatly evolved the role of the recordkeeper from just tracking participants to actively being involved in aggregation and placing of trades directly with fund companies. As the volume of daily valued plans quickly grew, a need for more streamlined processes became apparent. This led to The Depository Trust & Clearing Corporation (DTCC), through its subsidiary National Securities Clearing Corporation (NSCC), developing a new service to their Fund/SERV product which allowed 3rd party recordkeepers to place trades on behalf of plan trustees/custodians. This service, Defined Contribution Clearance & Settlement (DCC&S), provided the industry with standardized and automated processes of pricing, trading, and settlement. This has made a large contribution to the efficiency and continued growth of the DC industry.

Assets invested in US defined contribution plans now represent 89% of those in US defined benefit plans (\$10.6T versus \$11.9T, respectively in Q423¹). That represents a significant change since 1995 when defined benefit assets exceeded defined contribution assets by a 2 to 1 margin². With that growth has come the opportunity to utilize asset vehicles beyond daily valued mutual/collective funds, especially amongst the DC plans whose net market assets are in the multi-billions. Plans of

this magnitude often look to build diversification and customization to best execute their desired objectives on behalf of their participant bases. One of the more common objectives seen was the usage of target date options within plan menu offerings. Target date funds, either off the shelf funds or customized white labeled constructs, have seen significant growth over the last 10-15 years. These plan options are typically offered as a “suite” of multiple vintages designated with target years in 5- or 10-year increments (e.g., 2025, 2030, etc.) with each having sliding investment glidepaths growing more conservative in investment design as the targeted retirement date approaches. Much of the growth has been driven by the Pension Protection Act of 2006 that provided fiduciaries with a safe harbor in determining a Qualified Default Investment Alternative (QDIA) for plan participants who failed to provide a specific direction as to how to invest their contributions. A QDIA needed to be in one of four forms, of which one was a “life-cycle or target date fund, or any product with a mix of investments that takes into account an individual’s age or retirement date”. TDFs now seem to be the most common form, acting as the investment instruction assigned to new accounts based upon the participant’s date of birth. The table below reflects the growth of auto-enrollment, and it’s likely we will see continued growth as the Secure Act 2.0 includes provisions requiring auto-enrollment beginning in 2025.

% of Total 401(k) Plans					
Year	Automatic Enrollment	Default Investment Account	ERISA section 404(c) "Safe Harbor"	Self-Directed Brokerage Account	
2010	3.9%	45.4%	68.1%	8.0%	<p>Automatic enrollment refers to defaulting new hires into a QDIA at some predetermined contribution rate, unless participants pro-actively "opt out" of making contributions.</p> <p>A default investment account is a feature of total or partial participant-directed account plans, where the plan uses the default investment account for participants who fail to direct the investment of their assets.</p> <p>To be compliant with ERISA section 404(c) "safe harbor" a plan must meet two general requirements: (1) the plan must offer a broad range of investment options and (2) allow participants to become informed about and direct the investment of their plan accounts.</p> <p>A self-directed brokerage account is a participant-directed brokerage account provided within the plan, allowing for participants to invest in options beyond the plan's core menu of funds.</p>
2011	4.5%	48.8%	69.0%	8.3%	
2012	4.9%	55.8%	71.7%	8.8%	
2013	5.3%	58.6%	74.6%	9.0%	
2014	6.0%	60.8%	76.7%	9.3%	
2015	6.9%	63.7%	81.0%	9.4%	
2016	8.1%	65.8%	83.0%	9.7%	
2017	9.6%	67.3%	83.9%	9.7%	
2018	11.6%	68.9%	84.8%	9.9%	
2019	13.4%	70.2%	85.6%	10.4%	
2020	15.8%	72.2%	86.6%	10.3%	

Sources: Department of Labor, Cerulli Associates September 2022
Release: Quarterly Retirement Market Data, Third Quarter 2022 | Investment Company Institute (ici.org)
U.S. retirement assets by type 1995-2021 | Statista; Fact Sheet (dol.gov)
QDIA Basics | PLANSPONSOR
SECURE 2.0 to expand auto-enrollment | Pensions & Investments (pionline.com)
401(k) Plan Characteristics, 2010-2020

While DCALTA does not have an opinion on specific investment vehicles, it is worth noting that mutual funds, collective funds, and/or direct separately managed accounts may all be utilized for incorporating alternatives into defined contribution plans based upon specific needs and plan designs.

The continued growth of target dates has offered an opportunity for plan sponsors to expand diversification among alternative investment strategies (e.g., private market assets, real estate, hedge funds) and introduce potential alpha and risk mitigation benefits to their retirement plans. Given the challenges of liquidity and valuation of these assets, we are not yet at a point where these types of assets could be used to create stand-alone options. However, in June 2020 the Department of Labor issued an information letter indicating a recognition of private equity as a potential component of defined contribution plan target date funds. To effectively facilitate this, the industry should develop technology involving valuation and uniform performance measurement capabilities to fit into the rigors of the daily valued, participant directed defined contribution world. This next part of the paper will describe aspects of technology needed to support private assets in the DC confines, allowing plan participants to share in the performance and diversification benefits of different asset classes. Either the plan fiduciary or a hired agent responsible for deciding how to structure DC plan investments by choosing managers and/or determining allocation amounts from the component investment entities of the plan. Allocators can play a key role with glide path construction, manager selection and asset allocation decisions.

The Evolution of Alternative Investments and Technology

As the inclusion of alternatives in DC plans moves forward, technological advances spurred on by AI/machine learning will be an important catalyst to needed efficiencies for all parties involved. Opportunities to address critical DC needs such as daily fair market valuation, performance reporting against indices, and transparency can be approached as we continue to innovate with data – facilitating suitability of alternative assets for plan sponsors and participants alike.

Alternative Investments have evolved from a simple paper check and physical sub-doc to electronic wire and digital e-signature and eventually to Distributed Ledger Technology (DLT) – lessening the operational burden on clients, advisors, investment managers, custodians, administrators, and broker/ dealers in a global solution upon unified account technology driven platforms.

There are a number of firms / technologies using formats such as DTCC's Alternative Investment Products (AIP) and

considering DTCC has conducted several pilots, including those focused on settlement, private markets and digital dollars, progress is being made to validate where DLT solutions are most applicable

The investment landscape has gone from strategies traditionally available only to institutional investors and the ultra-wealthy to registered investors who can purchase strategies comprised of many asset classes (i.e., Private Equity, Private Real Estate, Private Credit, Venture Capital, Hedge Funds). In addition, there are many exiting fund structures that can meet the needs of both advisors and their clients within the global marketplace other than just in a K1 reporting structure. Advancements in technology can help these fund structures with uniform valuation processes, automating manual processes, share fractionalization and with data collection.

Key Roles and Responsibilities for Technology

Technology has assumed a primary role in virtually every segment of financial services. The application of technology to defined contribution plans has had a long-standing, positive impact on the ability of plan service providers, plan sponsors and plan participants to manage their responsibilities. As technology continues to advance at a record pace, we see the use of new technology in defined contribution plans reducing costs, increasing operational efficiency, minimizing different types of risks and providing expedited processing times—all leading towards improving outcomes for American workers. The use of technology is particularly important in effectively including alternative investments in DC plans.

In previous papers, DCALTA has outlined the importance of defined contribution plans to utilize a comprehensive set of investments including alternative investments in building solutions for plan sponsors and their plan participants. Key technologies have been implemented and continue to develop in areas across trading and secondary trading, valuation, custody, fund administration and record-keeping, financial planning and reporting. We are also seeing very encouraging use cases for DLT as part of the advancement in this space.

We have outlined the key parties in a defined contribution plan and list their responsibilities, and how technology impacts and can improve the results for these groups:

	Responsibility	Technology
Plan Fiduciary or Asset Owner	<ul style="list-style-type: none"> Hire service providers and other experts when there exists an absence of requisite knowledge Engage recordkeepers, plan custodians, investment managers, consultants and others to assist with the proper functioning of their retirement plans Delegate fiduciary functions to others depending on knowledge-level, risk considerations and financial expertise 	<ul style="list-style-type: none"> Using recordkeeper provided dashboard to monitor plan statistics across contribution rates, account balances, “retirement readiness”, asset allocation, loans, profit sharing contributions, etc. See investment manager or asset allocator below for technology used by sponsors managing their own funds for participants.
Recordkeeper	<ul style="list-style-type: none"> Provide a customized investor portal for the plan fiduciary and participant to manage their investment portfolio with a daily frequency Supply regular reporting, statements and plan notifications to the plan sponsor and participant Receive and report NAVs from plan investment managers or from their custodians 	<ul style="list-style-type: none"> Tracking and segregating assets by participant account. The recordkeeper serves as a bookkeeper (sub-transfer agent). Receives requests from participants and processes transactions (buys/sells). Transfer Agents- Tracks ownership at the retail asset owner level for non-DC assets and the plan level for DC plan assets DCC&S through NSCC for mutual fund and CIT trading daily, Participant record-keeping software (e.g., Omni, etc.) Provision of financial wellness technology for participants “trading” of alternative investment positions for model portfolios (e.g., AIP, Custodian provided system)
Investment Manager or Asset Allocator	<ul style="list-style-type: none"> Can decide on DC plan investment menu available to participants Can work with glidepath construction, manager selection and asset allocation decisions Manage investments for participants through varied fund structures Private asset managers calculate NAVs on a regular basis (e.g., monthly/quarterly) which then rolls up to a custodian/valuation firm for estimating daily prices See DCALTA’s Valuation of Illiquid Assets for DC Plans 	<ul style="list-style-type: none"> Asset allocation technology to provide modeling and scenario analysis. NSCC, Bloomberg, Charles River systems. AIP for alts investments and emerging platforms in the alts space.
Fund Administration, Custody and Clearing	<ul style="list-style-type: none"> Responsible for services like fund accounting, regulatory reporting, asset valuation, daily NAV pricing, capital calls and capital distributions Product coverage can include - Collective Investment Trusts (CITs), private funds, mutual funds, ETFs and digital representations of funds Processes, settles, and clears (NSCC-eligible) transactions and pricing through NSCC (or DTCC). 	<ul style="list-style-type: none"> ERISA assets- holds assets separate from plan sponsor and holds within a trust on behalf of participants. As directed by plan sponsor: May value the assets May calculate unit values when serving as fund administrator Can do this at the investment option level and/or the TDF level (NAV). These responsibilities can depend on the roles being delegated to the custodian (e.g., White label funds) May construct a daily value for all assets including illiquid assets within the investment option. For funds, CITs and separate accounts, transfer agency software is the prominent technology used.
Plan Participant	<ul style="list-style-type: none"> User of recordkeeper technology to review account-level info and allocate contributions and/or balances daily Use of plan website for investment research, modeling, plan information/docs and financial wellness The ultimate end-user of all services above 	<ul style="list-style-type: none"> Recipient of statements, asset allocation, financial wellness, fund trading capabilities from the recordkeeper and/or investment manager.

Innovation in Technology for Today and Tomorrow

Platforms

Access to alternative investment strategies can be a challenge for investment managers and managed account providers in DC plans, and alternative investment platforms can help break down common barriers. To date, alternative investment platforms* have played a pivotal role in offering alternative investments to financial professionals and their clients by leveraging technology in an industry that is historically reliant on paper-based processes. These business-to-business (B2B) platforms have been focused on serving financial professionals across both financial intermediary and institutional channels. The systems and process they have created can facilitate the introduction and growth of alternative investments to the DC market through educational initiatives targeting high net-worth investors.

When attempting to purchase alternative investments, DC plans, financial professionals, institutional investors and their advisors have faced several pain points. These include infrequent asset valuation, labor-intensive (paper-based) subscription documents, difficulty servicing alternatives positions, due diligence, and lack of education. There is a growing group of alternative investment platforms that have created solutions to overcome these hurdles and provide access and implementation of alternative investments in DC plans. These solutions began with fully digital workflows to better manage subscriptions, reduce operational issues, and improve the investment process; and then spanned beyond that to include due diligence and education.

Additionally, streamlined technology and effective distribution relationships with alternative fund managers help lower investment minimums and bring scalable and tailored product structures to defined contribution plans. For example, some of the current financial intermediary platforms offer investment allocations as low as \$2,500 for many private asset strategies and are actively creating feeder funds that aggregate assets to overcome the operational challenge of fund managers having to deal with multiple small tickets. Soon, we anticipate the potential for these platforms to work on an integrated basis with DC plan recordkeepers, investment managers, and managed account providers to deliver alternative investments in a desired format for retirement plan participants.

Institutional investors have long recognized the value of alternative investments, and the higher level of due diligence required to responsibly utilize these investments in portfolios. To reduce this burden, instead of taking a “do-it-yourself” approach, DC plan fiduciaries, investment managers, and managed account providers can leverage the due diligence provided by some of these platforms. Groups like iCapital house due diligence teams for their curated fund menus. Other platforms, such as CAIS, have strategic

relationships with institutional investment and operational due diligence consultants, providing financial professionals/advisors with comprehensive and independent oversight on alternative investment products.

Recognizing the importance of alternative investment education for both plan fiduciaries and plan participants, platform providers, fund managers and industry groups have designed educational tools to help improve long term retirement outcomes for plan participants.

In short, these platforms are revolutionizing investing in alternatives, and we envision the DC space also benefiting from similar solutions that remove roadblocks affecting valuation, liquidity, investment size, operational workflows, due diligence, and education.

Blockchain and Tokenization

Challenges and Opportunities:

Many traditional DC plans offer limited investment options, which can hinder diversification and potentially lead to lower returns. Alternative investments have yet to see broad adoption, partly due to misconceptions about the need for daily liquidity and market pricing for inclusion in target date options and other asset allocation solutions. Blockchain technology has the potential to facilitate the adoption of alternative investments through tokenization, providing one possible approach to address these challenges.

Tokenization Explained:

Tokenization allows for fragmentation of real estate and alternative investments into digital tokens, enabling fractional ownership. This innovation could increase accessibility to alternative assets for DC plan participants. Key steps in the tokenization process include:

- Digital representation of legal security (commonly called tokenization)
- Data feeds that allow the digital financial instrument to surveil the underlying asset/fund
- Administration of the security - recordkeeper, fund administrator, custodian
- Listing of the security on an exchange
- Price Discovery - because of data feeds and exchange activity
- Ongoing data feeds implemented through “smart contracts”

Benefits of Blockchain:

Blockchain's security and transparency can streamline the investment process by providing a tamper-proof record of ownership and transactions, potentially reducing administrative tasks and fraud risks. Smart contracts may automate tasks like dividend distribution and voting rights, creating efficiencies if integrated effectively.

Tokenization could also allow for improved valuation of alternative investment funds, using the underlying data of partnership holdings to deliver on-demand independent valuations that can be configured to estimate gross, net, and fundamental asset value. These quantities could then feed into portfolio dashboarding software or – upon asset manager election – to marketplaces, ATSS, DAOs, and exchanges.

Tokenization may offer new avenues for liquidity that better align with the needs of defined contribution plans. Listing on an exchange (e.g. NYSE), bulletin board, or Alternative Trading System (ATS) are ways that a tokenized alternative fund can seek improved liquidity. This can be offered by a General Partner (GP) or Issuer through a managed bulletin board for existing investors. These assets could have the potential to be traded daily, monthly or quarterly, and/or in conjunction with a redemption function for interval real asset funds.

Impact on DC Plans:

If blockchain and tokenization are successfully adopted, they could enable DC plans and their investment solution managers to offer a more diverse investment landscape for participants, with the potential for increased returns that could benefit long-term retirement security.

Additional Considerations:

The success of this approach hinges on reliable data feeds for token valuation, trusted custodianship solutions, and the development of marketplaces for liquidity aggregation. Regulatory frameworks also need to adapt to accommodate these innovative investment structures.

Artificial Intelligence (AI)

Artificial intelligence (AI) is another area of innovation impacting the use of alternatives in the DC space. Providers across recordkeepers and managed accounts are actively pursuing the application of this important technology. Listed below are some of the areas that AI is likely to change and improve DC savers' access to alternatives:

Daily Valuation. When the Department of Labor clarified the path for private assets in DC plans, it required valuation

frequency to be uniform across asset portfolios within 401(k) plans. Two common limitations of the traditional approach to

daily valuation are: (i) loss of the attractive diversification effect; and (ii) inability to capture idiosyncratic sources of value growth. The use of AI-based systems can further enhance the daily valuation techniques and processes available in the market today.

Automating tasks. AI can automate many of the tasks that are currently done manually by DC plan administrators, fund administrators, custodians, and trustees. These tasks include items such as participant-facing services, investment operations (e.g., handling re-balancing and potential liquidity constraints), as well as providing compliance services. This streamlines processes freeing up personnel and/or reducing costs and improving timeliness.

Providing better insights. AI can analyze large amounts of data and provide insights that may be difficult or impossible for humans to obtain on their own. This insight can help plan sponsors and fiduciaries with decision-making regarding plan design, investment selection, risk tolerance and asset allocation, and participant education.

Personalizing experiences. AI can be used to personalize the DC experience for participants, based on their individual goals, risk tolerance, and overall financial situation. Using AI can offer the potential for a broader universe of investment options, such as alternative investments, to be used when constructing long-term multi-asset solutions for participants.

Making it easier to save. AI may make it easier for people to save for retirement. For example, AI-powered chatbots can answer questions about retirement planning, and AI-powered tools can help people track progress and adjust their savings plans as needed.

We see many of these areas directly improving access to alternative investments for plan fiduciaries and their participants. Here are some of the ways we see AI specifically impacting the use of this expanded universe of institutional investment tools:

Increased access to alternative investments. AI can help facilitate investing into alternative investments by DC plan participants. AI can be used to automate the process of selecting and managing alternative investments, which may reduce the costs associated with these investments. As a result, plan fiduciaries and their investment managers may be more apt to diversify investment allocations to alternative investments.

Improved risk management. AI can be used to improve the risk management of alternative investments in DC plans. AI can be used to analyze large amounts of data to help identify and mitigate risks in allocations of investment solutions as well as within underlying alternative investment funds.

Personalized investment advice. AI can be used to provide personalized investment advice to DC plan participants. AI

can help analyze individual participant data to identify and select alternative investments likely to meet their individual needs.

These are just a few examples of how AI is being used to facilitate access to alternative investments for DC plan participants. As AI advances, DCALTA will continue to research AI and its potential impacts for achieving retirement outcomes.

Conclusion

In conclusion, the evolution of defined contribution plans has been marked by significant advancements in technology and investment strategies, reshaping the landscape of retirement savings for American workers. The adoption of daily valued mutual funds initiated a transformative shift, empowering plan fiduciaries and participants with more efficient and streamlined processes for pricing, trading, and settlement. This evolution paved the way for the introduction of target date funds (TDFs) as a prevalent professionally managed investment option within defined contribution plans, supported by regulatory measures like the Pension Protection Act of 2006. The continued growth of TDFs, coupled with innovations within managed accounts and auto-

enrollment, underscores the industry's commitment to enhancing retirement outcomes through diversified and personalized investment solutions. Furthermore, the recognition of alternative investments, including private markets, within defined contribution plans reflects a progressive approach to maximizing returns and mitigating risks for participants.

Technological advancements, particularly in areas like artificial intelligence, machine learning, and DLT, have played a pivotal role in enabling these developments. From daily fair market valuation to seamless reporting and trading, technology has enhanced operational efficiency and transparency, ultimately benefiting plan service providers, sponsors, and participants alike.

Looking ahead, the integration of alternative investments into defined contribution plans will continue to be driven by technological innovation, ensuring that American workers have access to a comprehensive set of investment options tailored to their needs and objectives. By leveraging technology effectively, the industry can further optimize outcomes, reduce costs, and manage risks, ultimately strengthening the retirement security of millions of individuals across the nation

Copyright © 2024 DCALTA. All rights reserved.

This report is not investment advice and should not be relied on for such advice or as a substitute for consultation with professional accountants, tax, legal or financial advisers. DCALTA has made best efforts to use reliable, up to date and comprehensive information and analysis, but all information is provided without warranty of any kind, express or implied. DCALTA disclaims any responsibility to update the information or conclusions in this position paper. DCALTA accepts no liability for any loss arising from any action taken or refrained from as a result of information contained in this paper or any reports or sources of information referred to herein, or for any consequential, special or similar damages even if advised of the possibility of such damages. This report may not be sold. DCALTA members that contributed to this report are not FINRA registered. DCALTA is not authorized by, nor a member of, the Financial Accounting Standards Board (FASB) or the American Institute of Certified Public Accountants (AICPA). DCALTA is not authorized or regulated by the U.S. Dept of Labor or the SEC.

Please refer to dcalta.org for information.

Learn more about DCALTA.

Founded in 2015, DCALTA is a 501(c) non-profit organization representing the collective voice of the defined contribution retirement savings plan ecosystem. Our 40-plus members include plan sponsors, alternative investment firms, consultants, asset servicers, recordkeepers, technology providers and other stakeholders.

In addition to regular member events, we engage in education, research, and advocacy to:

- Address operational, educational and regulatory matters related to the uptake of alternative investments in DC plans.
- Provide information to the DC plan and Alts communities, including regulators and legislators, without bias.
- Better define how the inclusion of alternative investments in DC plans may contribute to enhanced participant outcomes.
- Advocate for prudent modernization of the relevant laws and regulations through a collective industry voice.

Please visit www.DCALTA.org to learn more about member benefits.