DTCC

2023 ANNUAL REPORT

Financial Markets. Forward.™

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IN A YEAR OF ACCELERATING CHANGE, DYNAMIC INNOVATION AND EXCITING OPPORTUNITIES,

we defined a bold, new vision for our company.

With a laser focus on our clients, we took critical steps to transform ourselves from a market infrastructure provider to a **strategic partner** for the industry.

Financial Markets. Forward.™

By collaborating with industry stakeholders, we create purposeful progress that enhances the stability and security of the financial markets for future growth.

As a user-owned and governed entity, we leverage our trusted position to help lead the financial services industry toward greater resilience and efficiency.

“We have a clear and ambitious vision – to lead the advancement of the global financial markets as the most influential, strategic, and tech-focused partner.”

FRANK LA SALLA
President, CEO & Director, DTCC

EXPLORE OUR LEADERSHIP

We Accept This Challenge

REFLECTIONS ON FRANK'S FIRST FULL YEAR AS CEO AND A LOOK AT THE "TREMENDOUS" OPPORTUNITIES AHEAD.

DEAR STAKEHOLDER,

A few months back, I attended a conference with CEOs of global companies to discuss critical issues that are impacting businesses today.

During a session on the fiercely competitive marketplace, a chief executive of a large, consumer-facing public company shared a story about a comment that a member of his executive team had recently made to him. The organization, once the leader in its sector, had fallen to second place and was stuck there despite efforts to reclaim their long-held position. A sense of acceptance seemed to be permeating the culture, which was echoed by his colleague: "We're still number two in our industry," he remarked. "Isn't that good enough?"

Good enough?

That conversation stayed with me long after the meeting had ended because complacency, if left unchecked, is a one-way ticket to irrelevance. Or as Hall of Fame US golfer Walter Hagan succinctly put it years ago: "No one remembers who came in second."

2023 was my first full year as CEO of DTCC, and I'm honored, privileged and humbled to lead this storied institution, which remains the premier strategic financial market infrastructure globally – a distinction we've worked hard to achieve over the course of 50 years and have no intention of yielding. We've earned the trust and respect of the financial services industry through the powerful platform, capabilities and solutions we deliver to help our clients achieve optimum performance and, ultimately, serve their clients. And as the pace of change in financial services intensifies and the marketplace evolves in response to geopolitical and macroeconomic factors and technological transformation, we're well positioned for long-term growth and success.

Our mandate to lead has never been more critical – or needed – than it is right now. As DTCC stands at the center of the global financial services ecosystem, our company shoulders a tremendous responsibility – a reality that brings energy, influence and importance to our work. In 2024, for instance, we will be at the forefront of several of the industry's most critical initiatives, including leading the transition to a T+1 settlement cycle for equities in North America and also supporting the implementation of the Securities & Exchange Commission's (SEC) US Treasury Clearing rule starting in 2025. These two regulatory changes alone reinforce the need for heightened operational resilience across the industry in the coming years, which is why we've prioritized our own modernization program. Around the world, we're playing a key role helping clients comply with multiple rewrites of derivatives trade reporting rules, including the European Market Infrastructure Regulation (EMIR) refit. Industry-wide, we're excited to begin acting as a convening force to drive acceptance and adoption of digital assets and development of the digital ecosystem of the future.

I'm proud to report that, with the industry looking to us for greater support than ever before, we accept this challenge and are confident we will deliver in large part because of the work we undertook in 2023 to elevate our firm.

SERVING AS A STRATEGIC PARTNER

One of our most important actions was to refresh our strategic positioning by defining a new Vision, Mission and culture framework that would inspire, motivate and galvanize our employees and external stakeholders. Our Vision and Mission are clear and ambitious, and they reinforce our commitment to protecting the global marketplace and staying at the forefront of technology and innovation.

Our Vision is to lead the advancement of the global financial markets as the most influential, strategic and tech focused partner.

Our Mission is to create opportunities for our clients and the industry to grow by protecting and advancing the global financial markets.

We're excited to advance a bold agenda underpinned by our Vision and Mission, but we also recognize that industry-wide transformation initiatives are difficult for market participants at a time when cost pressures remain high. Now more than ever, our clients need DTCC to serve as their strategic partner to guide and advise them through these changes. Just as important, they require a higher level of support as uncertainty continues to dominate the external landscape.

EVOLVING OUR CORPORATE STRATEGY

Against this backdrop, our senior leaders reassessed the firm's business plans last year, challenging each other to identify opportunities to leverage our capabilities in new ways to drive growth for the industry. We also deepened our talent bench at the senior-most levels of the organization with leaders who bring a wealth of industry experience and knowledge to our company. Our clients want DTCC to provide expertise that makes the markets safer and more efficient and helps them address issues they can't solve on their own. In return, we will operate as strategic partners so that the industry benefits from the experience we bring to the table and proactively collaborates with us on the widest range of issues.

While DTCC's corporate strategy is fundamentally sound, the updates we made will deliver greater value to the industry over time. Whether it's advancing our core clearance and settlement modernization program, strengthening our platform to drive market evolution or investing in risk management to protect financial stability, we're ready to lead positive change for the industry.

Read a Q&A with Frank to learn more about DTCC's refreshed corporate strategy and how we're delivering for the industry.

To deliver on our strategy, we restructured our organization. Our new operating model, which aligns around solutions, platforms and clients, is already producing the benefits we envisioned of improved end-to-end planning, prioritization, service delivery and consistency across our processes. With clients' expectations rising, we're fostering a culture of urgency and speed to meet their needs quicker and more effectively. In addition, we've instilled greater ownership and discipline in our business planning and expense management processes through our Driving Accountability, Results and Transparency (DART) program, which has enabled us to operate more efficiently and freed up $125 million in capacity for reinvestment in our strategic initiatives.

STRONG PERFORMANCE IN 2023

We're fortunate that we've begun 2024 from a position of financial and operational strength. For that, I want to thank the DTCC Executive Committee for their outstanding stewardship of the firm and all DTCC colleagues for their hard work and commitment to our success.

2023 Operating income of $324m was comprised of revenues of $2.2 billion and expenses of $1.9 billion. We exceeded our 2023 corporate savings goal and are on track to meet our full goal of $125 million in savings for 2024. To capture those full savings, we have asked all of our employees to embrace an enterprise mindset of rigorous expense discipline. Operationally, we continued to seamlessly clear and settle, despite periods of market volatility and other incidents. In fact, we set a new processing record again in 2023, handling securities transactions valued at $3.00 quadrillion.

On this firm path forward, we'll provide our clients with the most innovative solutions and highest levels of service to help them meet their biggest challenges successfully, while steering the industry through some of the most significant changes to market structure in decades.

LEADING THROUGH INDUSTRY CHANGE

Since our company's founding, we've proudly served as a steward of progress by helping the industry navigate complex changes in markets and market structure. 2023 represented another year in which our expertise and innovation smoothed the rough edges of transformation. For instance, the discontinuation of LIBOR was an unprecedented event for the market as it served as the benchmark index for the majority of debt issuance for over 35 years. To help the industry through this evolution, we collaborated with the Federal Reserve's Alternative Reference Rate Committee and other industry organizations to create an enhanced Legal Notice System process, which allows for the centralized communication of fallback index rates. I'm pleased to report that the transition went well from an operational standpoint, and we're proud to have played a central role in it.

We're approaching the move to T+1 in North America on May 28, 2024, with a similar mindset, leveraging our experience and best practices to prepare for this mission-critical initiative. In 2023, we built upon the extensive work we've already completed by launching a test environment for our clients to rigorously assess their systems and processes. We also continued collaborating with the industry, SIFMA and the Investment Company Institute (ICI) to problem-solve challenges that could arise under a T+1 cycle. One area of particular focus is the importance of timely affirmation under a shortened settlement cycle. To address this, we've been encouraging firms to automate workflows with Central Trade Matching (CTM®) and Match to Instruct (M2i) to meet the new deadlines.

DELIVERING SOLUTIONS FOR TREASURY CLEARING

Similarly, implementation of the US Treasury Clearing rule is intricate given the unique structure and aspects of the Treasury market. With the requirement for increased central clearing moving quickly, we've been actively engaged in regular industry outreach and direct support to both sell- and buy-side participants. We've also taken action to provide more customized approaches for firms to comply with the rule, starting with offering a range of flexible clearing models for market participants to access Fixed Income Clearing Corporation (FICC) in the way that best meets their business and regulatory needs.

As I mentioned earlier, we're fully prepared to handle the increase in volumes that the requirement will generate after implementation at the end of 2025 for Treasury cash activity and mid-2026 for Treasury repo activity. In addition, we're committed to building on our strong track record of consistently introducing new innovations to the market, such as our successful Sponsored membership for the buy-side, which has increased significantly.

We've experienced similar success with our enhanced cross-margining agreement with CME, which is already generating reductions in margin requirements for participants. We're committed to building upon our cross-margining agreement with CME as well as exploring opportunities to extend the benefits of cross-margining to customer accounts and eventually other products. We know this is important to the industry because it will maximize liquidity and efficiency while maintaining robust risk management.

As the road to implementation of Treasury clearing progresses, I'm certain of four things:

- One, we view the SEC's new requirements as a logical expansion of the services FICC has provided to the Treasury market for nearly 40 years and consistent with our mission to ensure certainty, stability and seamless execution.
- Two, our unique ownership and governance structure will serve as a key differentiator because it allows us to take a long-term view of risk and make decisions that are in the best interest of the industry and the end investor, allowing us to make long-term strategic investments that will deliver benefits to the industry and clients we serve.
- Three, while other firms may enter the market to provide clearing services, we believe a single clearinghouse for US Treasuries provides maximum liquidity, efficiency and value. It also offers a central vantage point to understand market exposures and effectively manage risk.
- Four, the criticality of resilient infrastructure will become even more important to ensure the global system operates seamlessly and efficiently, particularly during market shocks, disruptions or periods of heightened volumes.

ADVANCING THE DIGITAL FINANCIAL MARKETS

As the financial markets continue their evolution, tokenization has gained momentum and created opportunities for new asset classes for the investing public as seen with the SEC's approval of spot Bitcoin ETFs in early 2024.

Throughout our history, DTCC has been a leader in digitization starting with our creation of the first digitized security in the early 1970s. We've consistently built upon that legacy over the years, and more recently, we've been proactively sharing our expertise in DLT and digital assets via numerous proofs of concept, white papers and industry engagements. The cumulative results of these efforts have paved the way to take our work to the next level. In the fall of 2023, we acquired Securrency (now DTCC Digital Assets) to bridge best-in-class industry practices with leading technology to support firms on their digital transformation journeys.

This transaction is significant for many reasons, but one of the most noteworthy is that it gives us a truly innovative and state-of-the-art capability to offer the entire industry while accelerating building our own enterprise digital asset platform. In addition, we made a strategic investment last year in Fnality, a wholesale digital cash payment system, that will help foster new payment rails, which will be essential for establishing a robust infrastructure, enabling interoperability and driving adoption of digital assets. With our new capabilities, strong relationships with a wide array of market participants and deep understanding of client needs, we now have more tools, experience and expertise to lead the development of the digital asset ecosystem.

The unleashing of digital assets also gives us the perfect opportunity to elevate our support for our clients in ways that we haven't before, including working more closely with and delivering new solutions to the investment management community. In addition, we've taken the steps to create an industry sandbox for use in proving digital asset concepts and ideas, with the goal of establishing an industry-wide capability. We also plan to offer our clients the ability to assess new business opportunities and "experiment at scale" via our private, permissioned DLT network, and help support standards for tokenized assets and their governance with our Digital Asset Securities Control Framework.

These examples reinforce that DTCC is a hub of innovation and is committed to investing in and exploring the newest technologies to enhance how markets function. We're particularly excited about the potential of Artificial Intelligence and how it will eventually touch many aspects of our business – from client services to corporate strategy, talent acquisition and more. Already we're leveraging AI to create data and insights that will give us a greater understanding of our clients' needs and support better decision-making and prioritization to bolster our support for them.

BUILDING RESILIENCY AND PREPAREDNESS

Technology is an exciting frontier and plays a crucial role in all of our strategic initiatives, which is we why we remain cognizant of the various risks that can debilitate our systems and processes. For DTCC, resilience is core to who we are and what we do each day to protect the global markets.

Cyber threat preparedness is a topic that continues to draw greater attention from our stakeholders, who have raised their expectations around planning and recovery from potential attacks. We continue to devote significant resources to strengthening our cyber defenses and engaging with the public and private sectors to share information and expertise with our colleagues.

Following several high-profile cybersecurity incidents over the past year, we supported the appropriate business contingencies to ensure trade processing and provide stability to the markets. We've layered additional enhancements into our already robust cybersecurity program to ensure we have the latest protections in place and stay ahead of potential threats.

Resilience also includes having modern and high-grade infrastructure to operate and execute effectively while meeting regulatory expectations. Modernization is one of the four strategic pillars of our corporate strategy, and while there are many efforts across DTCC to achieve this goal, our targeted focus will be on modernizing the most critical systems supporting US Clearance and Settlement by 2028.

Modernization will enhance the resilience and stability of our applications and their functionality and help reduce the risk of outages and errors related to outdated legacy systems and manual efforts. The end result will give us interfaces and applications designed to meet the industry's structural changes and improve our responsiveness to client inquiries. This will elevate the quality of our service, our support and the overall platform experience for our clients and the industry.

PRIDE IN OUR PEOPLE AND CITIZENSHIP

The successful execution of our strategy rests in the hands of our people who are on the front lines driving our initiatives forward. That said, DTCC is not just a place to work – it's a culture and community, where Responsible Citizenship is one of our core values and our employees are expected to make a meaningful difference for our clients, industry and communities each day.

The concept of belonging is critical to our organization, and we're very serious in ensuring that colleagues feel comfortable bringing their full selves to work and contributing their ideas. To that end, the diversity of our organization is a point for pride for me, including among our Executive Committee and senior levels of the company. Our firm-wide efforts have won us recognition as a best employer for multi-cultural women and women executives from Seramount, a DEI leader. We also scored 100% on the Human Rights Campaign Equality Index for the 13th consecutive year.

These achievements, along with our actions to support our local communities and drive sustainability, are covered in greater detail in our 2023 Responsible Business Report, which is included as part of our Annual Report. I'm very proud of our team's accomplishments and commitment to this important work.

SETTING OUR SIGHTS ON THE FUTURE

DTCC's financial and operational strength as well as our respected brand are enviable attributes that any company would wish to attain all at once. The fact that we're in a strong position backed by the firepower of our talented organization gives me great confidence in our future.

DTCC's longevity and trusted reputation have been earned through the commitment of every individual who has worked for and supported our organization. I want to express my deepest gratitude to the DTCC Board of Directors, the Executive Committee and our employees for their partnership and contributions this year. I thank Bob Druskin, who retired as Non-Executive Chairman at the end of 2023, for his leadership, which has left an indelible mark on our company. Bob's guidance and support were instrumental in helping me transition to the CEO role, and

I'm extremely grateful for his friendship. And I'm delighted to work with Kevin Kessinger, our Non-Executive Chairman, whose industry experience and expertise will be invaluable to our firm.

I'd also like to recognize Gary Stern, Robert Colby, Shawn Feeney and Susan Yung, who retired from the Board at the end of 2023. They have provided exceptional counsel and insight to the Board's discussions. I'd also like to welcome our new Directors – Nigel Faulkner, William Hirshorn, Jack Klinck, Anthony Murphy, Nathaniel Stankard and Douglas Spell. We look forward to their participation and outside perspective.

To our clients and stakeholders – thank you for entrusting us with the great privilege and responsibility of safeguarding your assets and the financial markets. We're committed to elevating our support for you and serving as your strategic partner.

As I look ahead, 2024 will be the Year of Execution for DTCC – a year filled with promising opportunities and a bright horizon. I look forward to continuing our partnership together on this exciting journey into the future.

Frank La Salla
President, Director and Chief Executive Officer

SEE 2023 AWARDS:

dtcc.com/press-room/awards-and-recognition

Governance

Our Board plays a critical role in overseeing the strategic direction of DTCC, working closely with the firm's leadership and advising on topics including risk management, regulatory matters, the development of new products and services, emerging technology and more. The Code of Ethics governs the ethical behavior of the Board. In addition, the company has developed a Code of Conduct which governs the ethical behavior of employees and contingent workers.

SEE OUR BOARD OF DIRECTORS:

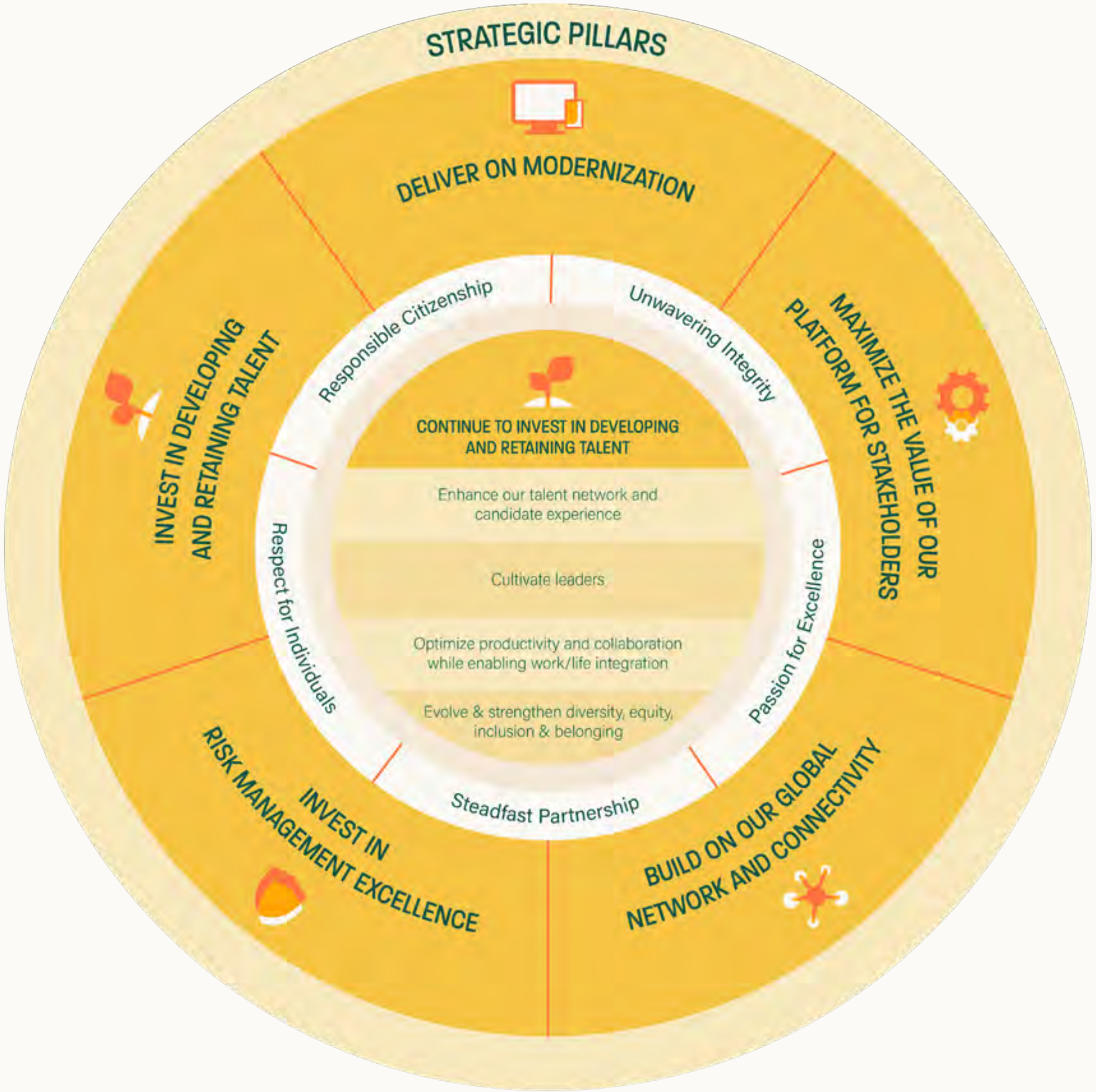
dtcc.com/about/leadership

SEE OUR EXECUTIVE COMMITTEE:

dtcc.com/about/leadership/executive-committee

Our Corporate Strategy: A Blueprint for Success

Our corporate strategy encompasses the guiding principles that inform our priorities for the enterprise and align to our strengths and our position in the financial markets.



Q&A with Frank La Salla on DTCC's Corporate Strategy

As the pace of change in financial services continues to accelerate, DTCC refreshed its corporate strategy in 2023 to remain aligned to our clients' most critical needs.

Frank La Salla, DTCC President, CEO and Director, shared his views on the transformative changes occurring across the global financial system and how DTCC's strategy is evolving to provide greater support to the industry today while shaping the future of the financial markets.

WHAT ARE THE MOST SIGNIFICANT MACRO DYNAMICS IMPACTING THE INDUSTRY TODAY?

I've spent more than 30 years in our industry, and it's been quite a while since geopolitical risk has eclipsed economic risk for most financial firms. As technology has made markets global, organizations must be attuned to what's happening around the world because what occurs in one region or even just a single country, regardless of whether you do business there, can impact your operations

While I'm encouraged by the resilience of the global markets over the past year, I'm also mindful of intensifying headwinds. For instance, we're witnessing two ongoing wars, growing international rivalries and heightened tension in many parts of the world, which is compounded by over 60 countries set to hold government elections this year. I've reinforced to our team that while we can't control these external dynamics, we can mitigate their impact by closely monitoring events and adjusting our approach as needed.

HAS THIS INSTABILITY AND UNCERTAINTY CHANGED HOW YOU THINK ABOUT DTCC'S STRATEGY?

The foundation of our strategy remains strong, which puts us in a solid position to maintain our leadership role in the industry. However, we're always collecting feedback from our clients and other stakeholders to have the broadest perspective on current market sentiment and trends. Having strong and vibrant feedback loops with our clients enables us to remain closely aligned with and aware of our clients' needs. Our strategy sets our direction to create and capture value across our businesses to inspire and align employees to work toward the same goals. Within that framework, we learn, adapt and evolve as circumstances demand.

THE FIRM REFRESHED ITS CORPORATE STRATEGY IN 2023 AMIDST THIS VOLATILE LANDSCAPE. DID YOU NEED TO MAKE SIGNIFICANT CHANGES TO IT?

I was pleased that our strategy remained fundamentally sound, but the leadership team also recognized that client demands and expectations were rapidly evolving due to the geopolitical issues I mentioned earlier as well as a host of macroeconomic factors and regulatory initiatives. The refinements we made to our strategy, along with how we've evolved our organization, will enable us to provide greater support to the industry and deliver on our strategic priorities with urgency.

CAN YOU SHARE A HIGH-LEVEL OVERVIEW OF THE REFRESHED STRATEGY?

Our strategy is built on three areas of focus. The first is that we will invest at scale to deliver solutions that will allow firms to outsource and consolidate non-core and non-competitive functions. This includes services that no single client could or should develop on their own. We believe this will help address the cost and compliance pressures that many companies are under today.

The second is that we will play a stronger leadership role in defining how clearance and settlement and the operational side of the market structure evolve. This is critically important as new technologies open the door to reimagined processes and business models. And the third speaks to our focus on innovation. We'll continue to identify and advance initiatives that make the financial system safer, more efficient and more resilient while reducing latency. In doing so, we'll deliver the highest levels of production stability, risk management and controls while doubling down on delivering a superior client experience. These focus areas are reflected in the 5 Strategic Pillars of our strategy.

STRATEGIC PILLAR 1

DELIVER ON MODERNIZATION

STRATEGIC PILLAR 2

MAXIMIZE THE VALUE OF OUR PLATFORM FOR STAKEHOLDERS

STRATEGIC PILLAR 3

BUILD ON OUR GLOBAL NETWORK AND CONNECTIVITY

STRATEGIC PILLAR 4

INVEST IN RISK MANAGEMENT EXCELLENCE

STRATEGIC PILLAR 5

INVEST IN DEVELOPING AND RETAINING TALENT

YOU TALKED IN YOUR STAKEHOLDER LETTER LAST YEAR ABOUT THE POWER OF DTCC'S PLATFORM. WHAT ROLE DOES YOUR PLATFORM PLAY IN YOUR STRATEGY AND HOW ARE YOU ENHANCING IT?

Our platform is at the core of our strategy and continues to be a differentiator for our firm. To deliver even more value and an outstanding client experience, we're further optimizing our platform through our modernization initiative as well as through new and complementary solutions and services. We have a bold vision that extends beyond the core functions of clearance and settlement to work in partnership with our clients, regulators and other fintech firms to build the digital market infrastructure of the future. In doing so, we want to establish an open ecosystem that is scalable and resilient and that maximizes efficiencies to enhance liquidity, strengthen risk mitigation and reduce costs.

BEFORE WE DIG INTO THE DIGITAL ASSET STRATEGY, CAN YOU EXPLAIN THE FIRM'S DIGITAL STRATEGY?

Our digital strategy, of which digital assets is a key component, will drive our broader transformation by combining the right technologies to deliver client value and striking the appropriate balance of investments across them. The digital strategy focuses on exploring products and services that can fill gaps in market infrastructure or demonstrate an optimized end-to-end digital life cycle. It also includes accelerating our enterprise digital asset platform, which is foundational to offering digital asset services. And given the current disparate nature of blockchain networks, we'll leverage our market position to support scalability and help harmonize standards around custody and controls.

HOW DOES DTCC'S ACQUISITION OF SECURRENCY (NOW DTCC DIGITAL ASSETS) LAST YEAR PROGRESS THE FIRM'S DIGITAL ASSET STRATEGY?

It's a game-changer for us and the industry because it gives our company powerful new capabilities to lead the development of the digital post-trade infrastructure for the financial markets. The combination of our technology, people and expertise positions DTCC to provide global leadership in driving institutional adoption of blockchain technology, including tokenization, automation, near real-time payment, post-trade settlement and cross-chain connectivity.

IT SOUNDS LIKE INDUSTRY COLLABORATION IS A KEY ELEMENT OF THE STRATEGY. WHY IS THAT IMPORTANT TO YOU?

For over 50 years, DTCC has played a crucial role at the center of the global financial markets. To ensure that we continue to serve in this vital capacity, we must transform with the industry so that we can continue collaborating and, ultimately, co-creating with our clients. For instance, we bring significant value to the financial markets through our control frameworks and the core capabilities that surround them. As the industry seeks more digital interactions, we must partner with firms to understand how digital asset technology will redefine issuing, settling, servicing and safeguarding financial assets. Given our unique position in the industry, we need to focus on identifying new ways of performing the services we deliver today to prepare for how our clients will demand them tomorrow.

WHAT ASPECTS OF THE CORPORATE STRATEGY GIVE YOU OPTIMISM FOR SUCCESS IN THIS YEAR OF EXECUTION FOR DTCC?

Our firm is built on a very solid foundation, which we enhanced over the past year. We're in a position of financial and operational strength with a healthy balance sheet, secure and resilient technology and the highest levels of risk management. Most importantly, we have a vibrant company culture and outstanding people who are experts in their areas of responsibility. Our strategy has set our North Star, our team is motivated, and we take great pride in our record of always rising to the occasion to support our clients and the industry. It's an exciting time for DTCC, and I'm confident we have the capacity to deliver even greater client value in the coming years.

Bringing Balance to the Financial Markets

WE CONTINUED TO MAINTAIN A STRONG BALANCE SHEET AMID ECONOMIC HEADWINDS. READ MORE ABOUT OUR PERFORMANCE FROM RENEE LAROCHE-MORRIS, DTCC CHIEF FINANCIAL OFFICER.

DEAR STAKEHOLDER,

With a combination of a solid economy, an apparent end to the Federal Reserve's interest rate hikes and strong corporate earnings as a backdrop, high trade volumes and valuations drove DTCC's strong revenue performance in 2023.

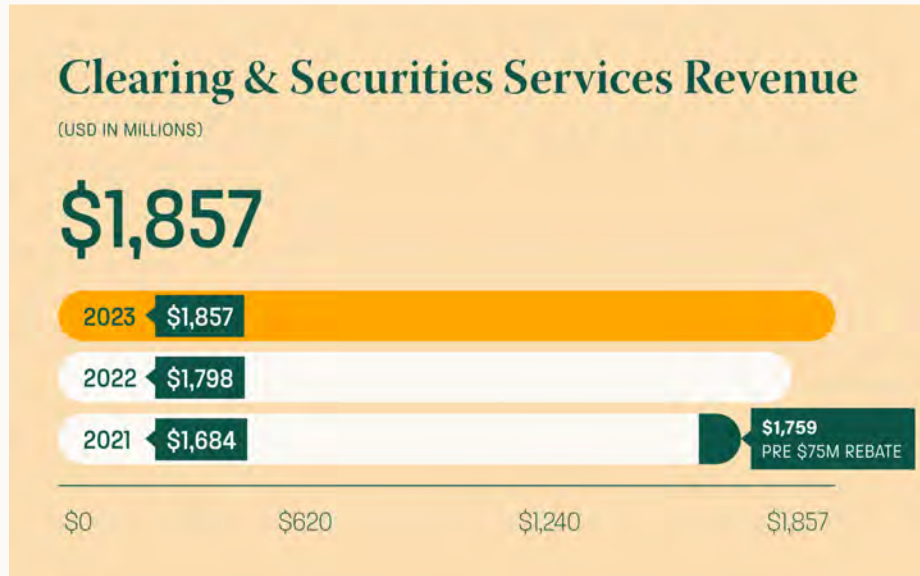
As inflationary concerns subsided, supply chain bottlenecks eased and the economy showed resilience despite the regional banking crisis in the first quarter, the stock market reached record highs despite geopolitical instability. The Treasury markets demonstrated similar strength in the face of periodic volatility during the regional banking crisis and, later in the year, an increase in long-term rates. While 2023 was a challenging year as expected, I am proud to report that our company successfully navigated these dynamics through rigorous financial planning and execution.

Last year we achieved our highest-ever revenue of $2.25 billion, up 4% from 2022. The outperformance was primarily driven by two of our clearing agency subsidiaries, The Depository Trust Company (DTC) and the Government Securities Division (GSD) of Fixed Income Clearing Corporation (FICC). In addition, we focused on reducing our operating expense base to create firm-wide efficiencies. Our 2023 plan included an aggressive program to reduce our operating expenses by $125 million by the end of 2024. I'm proud to report that we are on track to achieve this corporate goal. In turn, we used some of these resources to create capacity for continued strategic investments in technology modernization and new product development and enhancements.

In the fourth quarter, we completed the acquisition of Securrency, now DTCC Digital Assets, which will serve as the catalyst for executing our digital asset strategy and providing industry-wide leadership in promoting adoption of tokenization. The acquisition enhanced brand awareness in the blockchain and digital asset ecosystem and, importantly, included numerous technology assets and an experienced team of digital asset technology professionals to further strengthen our capabilities. We are very excited to further build out this asset in the coming years to support digital transformation.

For the year, DTCC consolidated financial statements reported net income of $453 million, up 36% compared to $333 million in 2022, before dividend payment of the Series D preferred stock. The increase in net income is primarily attributable to non-operating income, which was $278 million vs $123 million in 2022 primarily driven by higher interest earned on cash deposits.

In 2023, we executed a corporate restructuring to align our operating segments with our core clearance and settlement businesses while continuing to serve a global client base. In our new operating model, Institutional Trade Processing (ITP) was brought together with our Systemically Important Financial Market Utility (SIFMU) businesses (DTC, FICC and NSCC) to drive an integrated strategy and provide more holistic support to our clients. The chart below, which reflects this change, shows revenue reached $1.86 billion in 2023, which is 3% higher than prior-year revenue of $1.80 billion. Additionally, our Repository and Derivatives Services and Data Services businesses achieved revenue of $374 million, down $10 million from 2022 due to the full-year impact of strategic price changes in the Global Trade Repository (GTR) business.



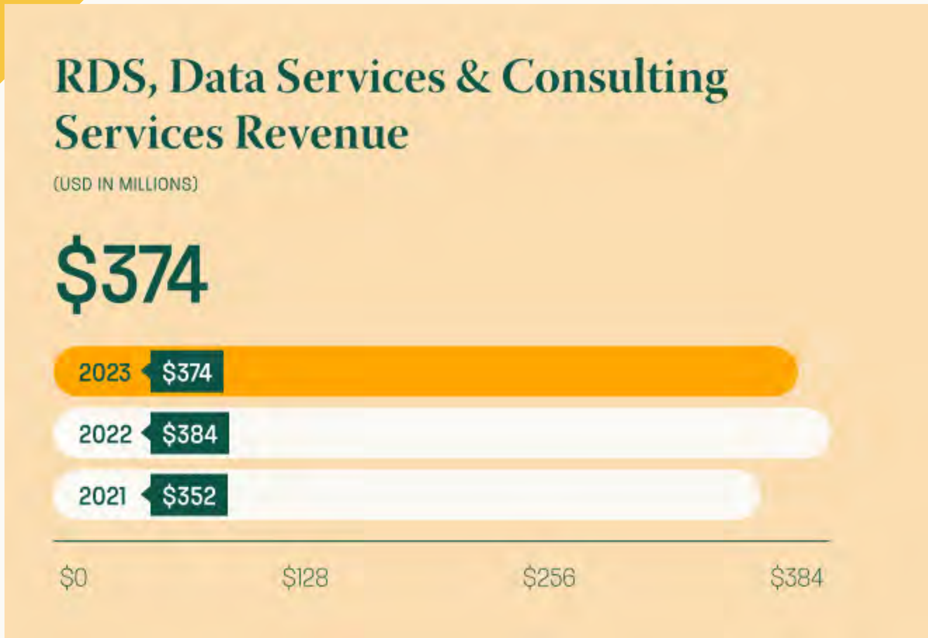
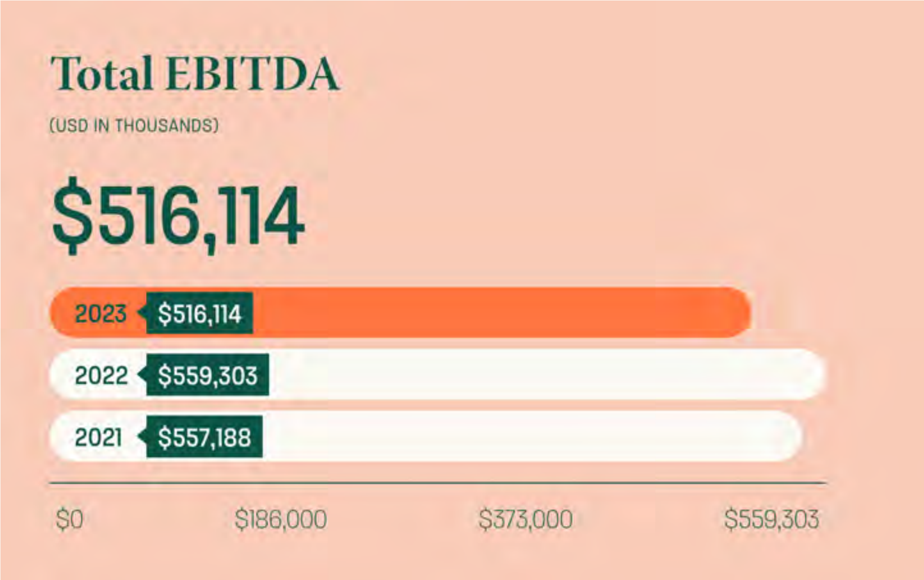


CHART RESTATED FROM PRIOR YEARS DUE TO THE REALIGNMENT OF ITP TOGETHER WITH THE SIFMU BUSINESSES

EARNINGS PERFORMANCE

Total EBITDA (earnings before interest, tax, depreciation and amortization) was $516 million, $43 million or 8% below the prior year of $559 million. Despite increased revenue performance, total EBITDA decreased primarily due to an increase in operating expenses. The increase in expenses reflects our continued commitment to making strategic investments and focusing on modernizing our infrastructure for the financial industry we serve. Additionally, we are seeing the impact of the inflationary effects on compensation & benefits and third-party vendor engagements.



SUMMARY BALANCE SHEET

The strength of our balance sheet reflects our core mission as a critical market infrastructure operating three SIFMUs in the United States. Our balance sheet is critical to our financial resilience and enables us to provide continuity of services in volatile market conditions and maintain market stability for our clients and the industry. We achieve this by issuing debt, predominantly for default liquidity purposes, to minimize the use of financial leverage.

We maintain a robust and diverse default liquidity portfolio consisting of pre-funded and committed resources. Reliable access to liquidity in various market conditions is our top priority. To achieve this, we diversify the portfolio not only with respect to duration but also from numerous liquidity providers in different financial and geographical markets. This includes the commercial paper market, investment grade debt capital markets and the syndicated loan market as well as directly from our participants.

The largest components of our balance sheet are the default management and liquidity resources, which are available in the event of a clearing member default in which the clearinghouse would need to facilitate settlement. These resources include the Participants and Clearing Funds as well as proceeds from the issuance of commercial paper and senior notes.

$MILLIONS	2023	2022
ASSETS		
CASH & CASH EQUIVALENTS	$16,024	$16,917
PARTICIPANTS' ASSETS	$87,727	$62,668
ALL OTHER ASSETS	$1,828	$1,469
TOTAL ASSETS	**$105,579**	**$81,054**
LIABILITIES		
COMMERCIAL PAPER	$9,077	$9,110
PARTICIPANTS' LIABILITIES	$87,727	$62,668
LONG-TERM DEBT	$3,732	$4,734
ALL OTHER LIABILITIES	$1,182	$1,125
TOTAL LIABILITIES	**$101,718**	**$77,636**
SHAREHOLDERS' EQUITY	**$3,861**	**$3,418**

In 2024, we will continue to prioritize expense management, the implementation of the T+1 settlement cycle, meeting the Securities and Exchange Commission (SEC) rule on U.S. Treasury Clearing, the modernization of our core technology infrastructure, and the build-out of DTCC Digital Assets. All of these initiatives require significant investment in people and technologies, which we are well positioned to support due to our ongoing disciplined financial management. We look forward to another year of supporting our clients and delivering maximum value to them and the industry.

Renee LaRoche-Morris
Chief Financial Officer

In 2023, DTCC played a leading role in advancing some of the most significant changes to market structure in decades.

EXPLORE
OUR STORIES

Architecting a Dynamic Financial Ecosystem

DTCC is leading two of the most significant enhancements to U.S. market structure in decades: shortening the securities settlement cycle to T+1 for U.S. cash equities, corporate debt and unit investment trusts and expanding the central clearing of Treasurys. Working collaboratively with our clients and the industry, we are driving financial markets forward by further strengthening market stability, mitigating risk and enhancing efficiencies.

2023 WRAPPED

- Launched a comprehensive, industry-wide T+1 testing program in August following publication of a detailed T+1 testing framework. A large cross-section of market participants are participating in testing to assess their readiness and prepare for a seamless transition.
- Continued to lead and prepare the industry for transition weekend through ongoing steering committees, educational webinars, working groups and training materials/events and collaborated with the regulatory community to provide ongoing project updates.
- Published a white paper on the current and potential future state of Treasury central clearing, including details on access models, margining and risk management.
- Continued industry outreach to solicit feedback from market participants and provide education as firms take initial steps to prepare for new Treasury clearing requirements.

WHAT'S NEXT?

With go-live for T+1 scheduled for May 28, 2024, we continue to support industry testing and are strongly urging clients to automate to meet the shorter deadlines in a T+1 environment. For Treasury clearing, while the rule will begin to take effect at the end of 2025 and run through mid-2026, we must be ready by March 31, 2025. We're hard at work evolving our access models, enhancing capital efficiency, facilitating industry discussions and providing education.

USHERING IN A NEW WAY TO SERVE OUR CLIENTS

"With the transition to a T+1 settlement cycle in the U.S., Canada and Mexico, along with the SEC's recent decision to expand the use of central clearing for U.S. Treasurys, we're at the forefront of market evolution and innovation. We'll serve as strategic partners to our clients as they look closely at their business models, technology and processes to achieve optimum performance. We recognize the significant effort these initiatives require, and we're committed to working with all our stakeholders to ensure a smooth transition.

"At the same time, as the ecosystem continues its digital evolution, FMIs are poised to expand how they serve the industry. At DTCC, we're working collaboratively with market participants and exploring how to move beyond traditional transaction processing to become architects of a dynamic financial ecosystem — one that crosses TradFi and DeFi and ushers in a new way of serving clients. It's an exciting time as we lead the digital evolution, which will bring reduced risk, increased efficiency and new capabilities to our clients."

-BRIAN STEELE

DTCC Managing Director, President, Clearing & Securities Services

Closing the Door on LIBOR

The discontinuation of LIBOR, the benchmark interest rate that banks used to borrow from each other, last year impacted trillions of dollars in debt as the industry transitioned to a new benchmark: the Secured Overnight Financing Rate (SOFR). At DTCC, we worked with security issuers, agents and trustees to launch an innovative tool to enable users to efficiently communicate key information to relevant parties and achieve compliance.

2023 WRAPPED

- Developed the LIBOR Replacement Tool to help standardize and automate the way firms share critical information, including the new alternative indices and replacement rate information submitted by issuers, trustees and agents.
- Enabled clients to access the solution through DTCC's Legal Notice System (LENS), a comprehensive library of notices on depository-eligible securities.
- Placed nearly 130,000 rate replacement submissions through the tool up to LIBOR's cessation date in June 2023.

WHAT'S NEXT?

While we were working with the industry on the new LIBOR Replacement Tool, we identified additional use cases that can allow it to extend beyond its expected life span. Our position paper detailed concepts for expanding the tool across Asset Services and introducing solutions to deliver automation improvements for both clients and stakeholders.h mid-2026, we must be ready by March 31, 2025. We're hard at work evolving our access models, enhancing capital efficiency, facilitating industry discussions and providing education.

AUTOMATING PROCESSES ACROSS THE ENTIRE SECURITIES LIFE CYCLE

"Client experience is central to our strategy as we identify new ways to enhance our solutions and deliver new services to meet the evolving needs of the industry. Our Asset Services business is a great example of this. We're currently building out a platform to automate processes at every touchpoint in the securities life cycle, across the entire end-to-end industry flow.

"We saw the value in automating and standardizing security information dissemination with the development of our LIBOR Replacement Index Communication Tool and want to leverage this approach to develop future capabilities. There is a tremendous opportunity for automation improvements that can benefit all stakeholders."

-ANN MARIE BRIA

DTCC Managing Director, General Manager, Asset Services

Taking the Reins on Regulatory Reporting

For OTC derivatives markets, navigating multiple regulatory refits and rewrites across jurisdictions requires extensive systems updates, understanding new reporting and reconciliation processes, and achieving compliance under tight deadlines. Through our Global Trade Repository service, we steer our clients through these regulatory changes with the goal of creating a more transparent landscape — all while guiding the industry along the path toward global data harmonization.

2023 WRAPPED

- Successfully achieved the first phase of the Commodity Futures Trading Commission's (CFTC) updated swap data reporting framework and made significant progress in implementing critical systems changes for new releases in Japan, the EU, the UK, Singapore and Australia in 2024, and in Hong Kong in 2026.
- Increased industry engagement and established working groups to promote testing and to serve as a resource for market participants navigating the myriad updates to reporting rules.
- Launched Trade Reporting Analytics and UTI Exchange as part of our DTCC Report Hub service to allow clients to evaluate trade and transaction data for accuracy, completeness and timeliness across reporting regimes.

WHAT'S NEXT?

In this constantly evolving regulatory landscape, we will continue to help firms prioritize readiness to stay ahead of regulatory changes. As the derivatives industry navigates the implementation of trade reporting regulatory rewrites in 2024 and 2025, we should see several benefits, including the standardization of data across global jurisdictions, improvement of overall data quality and reduced maintenance costs.

LEADING THE WAY TOWARD GLOBAL DATA HARMONIZATION

"In the 15 years since the financial crisis, the industry has made significant progress increasing transparency and managing systemic risk, particularly in the OTC derivatives markets. 2024 is perhaps the most significant year in this journey yet. While we continue to see differences among jurisdictions in terms of reported data, reporting mechanisms and data standards, the regulatory rewrites that are coming this year will go a long way toward improving data quality on our path to global data harmonization.

"Keeping up with the pace of these regulatory changes is no easy task. As we tell our clients, while the concept of a one-and-done silver-bullet approach might seem appealing, it's not feasible in a constantly evolving regulatory landscape. Instead, we recommend firms adopt a multifaceted approach, which includes identifying and securing the necessary partners, budget and expertise and building strategic alliances with technology providers, consultants and legal experts to unlock insights.

"Importantly, firms should remember that this is not just a tick-the-box compliance exercise. Rather, it's a prime opportunity to make sure that the processes you're putting in place are delivering strategic benefits, including improved operational efficiency and reduced risks."

-CHRIS CHILDS

DTCC Managing Director, Head of Repository & Derivatives Services

Embracing the Waves of New Technology

During this moment of dramatic technological transformation, DTCC continues to build on its legacy of innovation by leading the industry's understanding and use of blockchain, artificial intelligence (AI) and the cloud. As these technologies converge, they'll create a powerful digital ecosystem to drive new business models and make markets safer and more efficient.

2023 WRAPPED

- Defined the enterprise-wide AI strategy, operating model and execution plan. This was drafted by an internal AI Advisory Group led by Technology Research & Innovation to help guide and prioritize our work. We defined and conducted several proofs of concept to explore how we can transform the client experience, optimize productivity and enhance risk mitigation.
- Drove the technical due diligence required to successfully acquire Securrency.
- Drove the technical due diligence required to successfully acquire Securrency into DTCC. Developed the operating and governance model to enable successful integration into DTCC.
- Collaborated with Chainlink to explore token standardization as part of Swift's blockchain interoperability project.
- Drove multiple academic partnerships focused on innovation, including with Duke University, New York University and Cambridge University.

WHAT'S NEXT?

We're continuing to explore innovative use cases for these and other technologies while maintaining our deep commitment to security, resilience and performance. We believe Generative AI and distributed ledger technology will serve as key enablers of our strategy and enable us to develop new service models and solutions to support our clients and lead industry change.

2024 will be a year of execution. We are driving dozens of pilots, along with key partners, across DTCC and academic institutions to showcase the value of GenAI, the benefits of quantum-proofing, and the transformational impact of blockchain technology. In addition, we are working hard to ensure successful experiments reach production stages to drive lasting impact. Our strong partnerships with security, business and technology are key to driving adoption of new technologies and lasting change.

LEVERAGING TECHNOLOGY TO HARNESS ITS FULL POTENTIAL

"Technological transformation is a journey and not just a destination. The technology that powers the financial marketplace has been evolving at a rapid pace, and new technologies like GenAI show significant promise. The collective impact of this and other technologies will have a profound and lasting impact on the future market infrastructure.

"With promises of heightened operational efficiencies, predictive capabilities, streamlined processes and bolstered security measures, AI underscores a transformational shift in how we will do business in the future. DTCC is uniquely positioned to leverage this and other emerging technologies to harness the full potential of what they have to offer our organization and the industry as a whole."

-DR. JOHNNA POWELL

DTCC Managing Director, Global Head of Technology, Research & Innovation

Unlocking the "Art of Possible" for Digital Assets

The industry stands at an inflection point in its blockchain journey: After six years of proofs of concept but with few initiatives in production, companies want to see a pay-off. We believe the ground is beginning to shift, with a breakthrough in digital assets imminent. For DTCC, we will serve as both a catalyst of change and architect of the digital assets marketplace of the future.

2023 WRAPPED

- Acquired Securrency Inc., now DTCC Digital Assets, a blockchain-based financial technology firm, to help unlock the value of the digital assets and develop the infrastructure to enable end-to-end digital life-cycle processing for tokenized assets, digital currencies and other financial instruments.
- Published a white paper with Clearstream and Euroclear, Advancing the Digital Asset Era, Together, calling for increased collaboration across the ecosystem and pledging to work together to further propel digitalization of global financial markets.
- Invested in Fnality to help foster new digital payment rails essential for establishing a robust digital infrastructure. The vision is to build a world-first global liquidity management ecosystem that empowers new digital payment models in both wholesale financial markets and emerging tokenized asset markets.

WHAT'S NEXT?

DTCC Digital Assets gives us an innovative and state-of-the-art platform to support our clients' digital transformation journeys. As we align this cutting-edge, compliant tokenization technology with our robust infrastructure, we will define opportunities to reimagine compliance, liquidity and efficiency and to bring together different blockchains in trading real-world assets. Our Fnality investment will help foster new digital payment rails essential for establishing a robust digital infrastructure, enabling interoperability and driving adoption of digital assets.

SHIFTING OUR APPROACH TO PRIORITIZE BROAD DEVELOPMENT

"DTCC's acquisition of Securrency is one of those rare 1+1=3 moments. By combining DTCC's market position, prestige and resources with the technology of Securrency, the pieces are in place to unlock the true potential of digital assets, digitizing financial markets, driving interoperability and advancing industry-wide adoption of distributed ledger technology (DLT). We're excited that DTCC will be at the forefront of this transformation.

"The timing is ideal because there needs to be a shift in approach to digital assets, moving away from discrete experiments involving a small number of participants to collaborative efforts that prioritize broad ecosystem development. We see exciting opportunities to leverage the technology and create sandboxes for market participants to innovate. In addition, we'll advance new digital initiatives to further our core mission of strengthening market safety, soundness and resilience as well as to enhance critical market processes, including accelerating settlement times, improving intraday liquidity, lowering capital requirements across the system, allowing assets to be traded in any increments and integrating directly with digital cash.

"As DTCC continues to drive market digitization, we'll work with the industry to build out an efficient digital asset market structure that provides better capabilities, lower costs, regulatory certainty and less risk. This will be a multiyear journey, and we look forward to collaborating with the industry on this vital effort."

-NADINE CHAKAR

DTCC Managing Director, Global Head of DTCC Digital Assets

Navigating Evolving Cyber Risks

As the cyber threat landscape continues to grow in complexity and sophistication, cybersecurity has been named one of the top five risks facing the financial industry every year since we started surveying risk professionals in 2013. The same held true for 2024 in our latest Systemic Risk Barometer. From DTCC's position at the center of the financial markets, we're serving as a strategic advisor to the industry on risk and resilience and helping make our clients' businesses more secure and resilient.

2023 WRAPPED

- Responded to the cyberattack on a major financial services firm to provide certainty to our clients and ensure the processing of financial transactions to maintain market efficiency.
- Partnered with standards-setting bodies and supervisory working groups globally to help shape cyber-risk policy initiatives across jurisdictions.
- Shared best practices on cyber risk and engaged with key stakeholders to help shape the development of frameworks for sharing cyber incident information between institutions and regulators.

WHAT'S NEXT?

We continue to strengthen DTCC's risk posture, which at its most fundamental begins with the establishment of preventive and detective controls to mitigate emerging and evolving cybersecurity threats. We continue exploring new technologies to enhance resilience and operational efficiencies. We also urge the industry to implement threat detection, proactive defense measures and response processes, as well as regularly test their cyber framework and monitoring third-party exposures.

STAYING AHEAD OF THREATS TO AVOID GLOBAL RIPPLE EFFECTS

"The cyber landscape is constantly evolving, and staying ahead of these threats is a never-ending job. It's more important than ever that financial institutions continue their focus on proactively working to not only protect their institutions, but also to build multifaceted resilience capabilities to facilitate a swift recovery from operational disruptions.

"Driven by the growing sophistication of threat actors, the proliferation of new technology adoption and an increasingly interconnected marketplace, cyber risk is a top threat to the financial services ecosystem. These new technological abilities are also being used by threat actors to develop sophisticated techniques to compromise an institution's cyber defenses. As financial institutions look to capitalize on these emerging technologies, they must work closely with the public sector to understand changes to the threat landscape as well as to identify ways to address these risks.

"Doing so will enable our industry to stay ahead of the curve and facilitate a rapid recovery from cyber and other operational events as well as to avoid the potential ripple effects that could impact the financial sector at a global level."

-TIM CUDDIHY

DTCC Managing Director, Group Chief Risk Officer

Unearthing the Value of Data

In an environment characterized by rising interest rates, geopolitical risks and acute economic pressures, our clients are seeking more insight in the trading of different financial instruments, including credit default swaps, money markets and short-term financing. But the value of data goes beyond siloed insights and analytics. We are looking at the future and finding ways to ensure our clients' data strategies can meet the demands of a highly digitalized and interconnected marketplace.

2023 WRAPPED

- Launched OTC Direct Connect, which allows derivatives market participants to access over-the-counter (OTC) derivatives transactions data.
- Issued a white paper identifying current data management challenges and hypothesizing ways that data will be used in the future to evolve financial markets.
- Continued to leverage our partnership with Snowflake to help maximize the potential of our industry's data ecosystem.

WHAT'S NEXT?

We see opportunities across segments to realize the value of DTCC's data assets to improve price discovery, valuation and risk management. As we look ahead, we are exploring the expansion of our asset class coverage and the use of transactional data to address challenges in securities finance and fixed income markets. Modernization of data infrastructure is a core strategic pillar that will allow DTCC to further digitize collection of data from issuers and accelerate delivery of information to market participants through cloud-based marketplaces and APIs.

PROVIDING DATA-LED TRANSPARENCY INTO THE MARKETS

"In an environment characterized by rising interest rates and concerns about bank solvency, clients are increasingly looking for insights to help them manage liquidity. We're committed to continuing to provide data-led transparency into the markets to help firms grow and protect their franchises through the dynamics of changing market structure and the impact of new technologies.

"In 2024, we see opportunities to deliver more value to our clients by building upon our suite of data products. In particular, we are looking to expand our reference data services and design new products to help clients address liquidity and risk management challenges for ETFs, securities finance and fixed income markets.

"We also continue to help our clients as they explore emerging technologies. Specifically, we believe AI has huge potential to help firms better understand the fundamentals of supply and demand in capital markets. However, we believe these technologies need access to broad, historical data to help truly unlock these benefits."

-TIM LIND

DTCC Managing Director, DTCC Data Services

DTCC delivered a strong performance during a year of market volatility to support our clients and provide financial stability.

EXPLORE OUR PERFORMANCE DASHBOARD

Performance Dashboard

Total Value of Securities Processed*

(IN USD)

2023

$3.00 QUADRILLION

2022

$2.55 QUADRILLION

2021

$2.42 QUADRILLION

*PRIOR YEAR VALUES UPDATED BASED ON REVISED APPROACH FOR SETTLEMENT ACTIVITY TO INCLUDE BOTH SIDES OF ALL TRANSACTIONS SETTLING AT DTCC.

Total Revenue

(USD IN MILLIONS)

2023

$2,246

2022

$2,163

2021

$2,054

Total Assets

(USD IN MILLIONS)

2023

$105,579

2022

$81,053

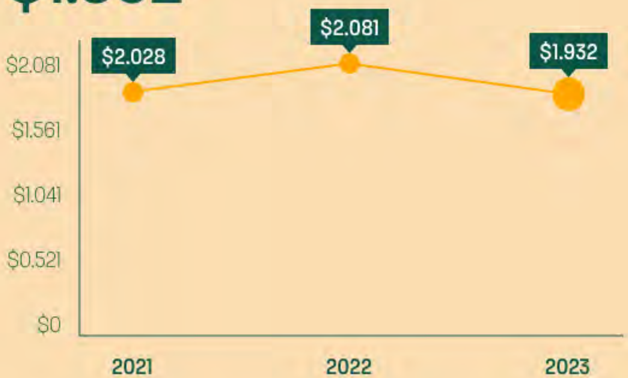
2021

$74,055

National Securities Clearing Corporation

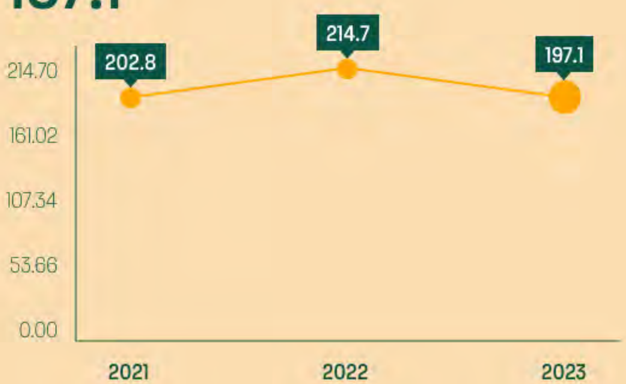
AVERAGE DAILY VALUE OF NSCC TRANSACTIONS PROCESSED
(USD IN TRILLIONS)

$1.932



AVERAGE DAILY VALUE OF NSCC TRANSACTIONS PROCESSED
(USD IN MILLIONS)

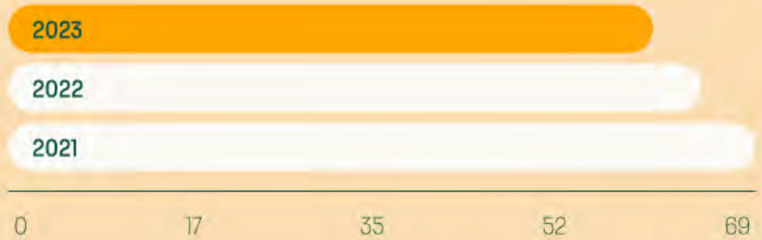
197.1



Fixed Income Clearing: Mortgage Backed Securities

MBS: PAR VALUE NETTING DESTINED
(IN TRILLIONS)

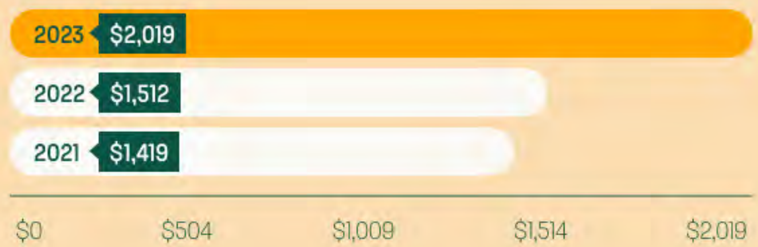
58



Fixed Income Clearing: Government Securities Division

GSD: TOTAL $ VALUE IN NET
(USD IN TRILLIONS)

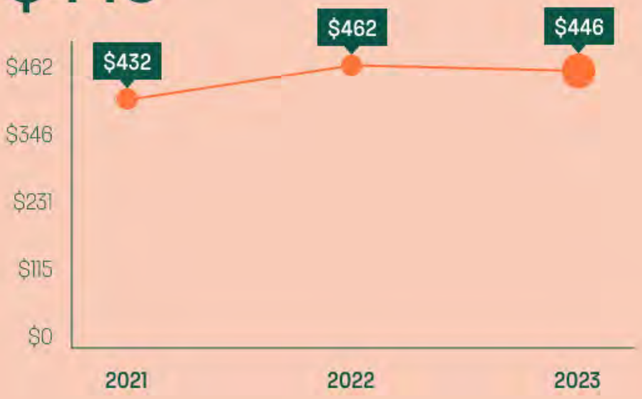
$2,019



Settlement

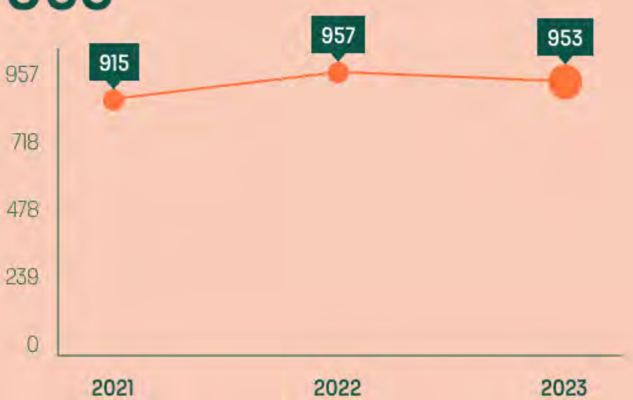
TOTAL VALUE OF TRANSACTIONS SETTLED
(USD IN TRILLIONS)

$446



TOTAL VOLUME OF TRANSACTIONS SETTLED
(IN MILLIONS)

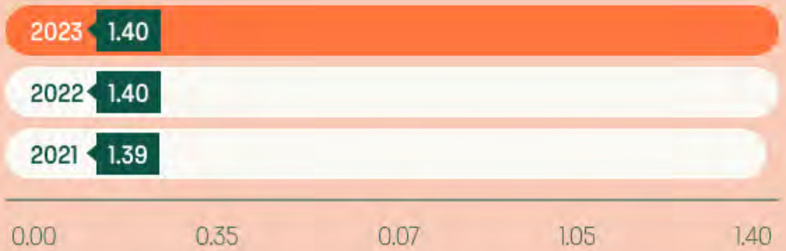
953



Asset Services

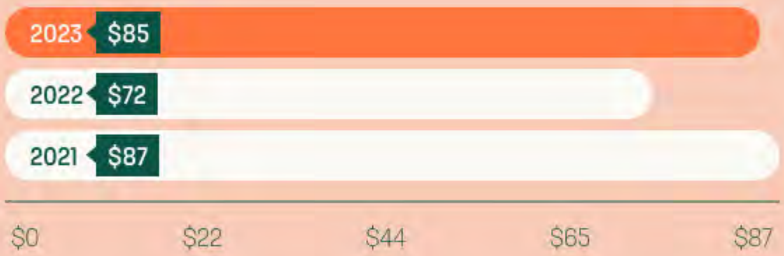
NUMBER OF ACTIVE SECURITY ISSUES HELD AT DTCC
(IN MILLIONS)

1.40



TOTAL VALUE OF ACTIVE ISSUES HELD AT DTCC
(USD IN TRILLIONS)

$85



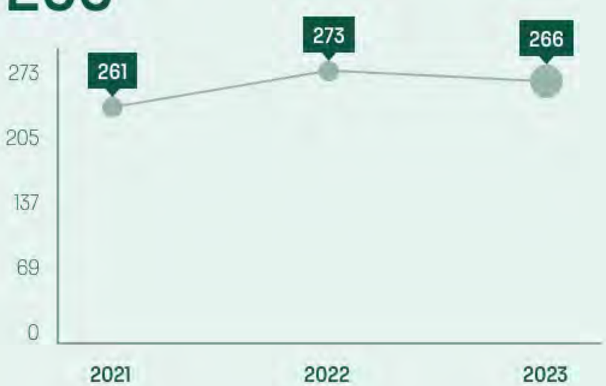
Wealth Management Services – Mutual Funds

VALUE OF FUND/SERV TRANSACTIONS
(USD IN TRILLIONS)

$9.2

VOLUME OF FUND/SERV TRANSACTIONS
(IN MILLIONS)

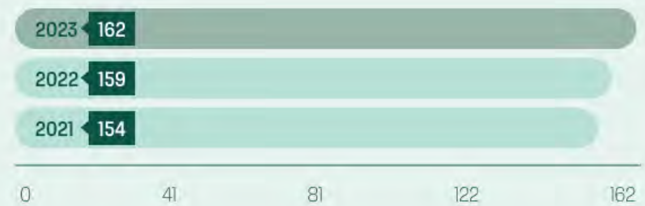
266



Wealth Management Services – Mutual Funds

MUTUAL FUNDS DEFINED CONTRIBUTION CLEARANCE AND SETTLEMENT
(YEARLY VOLUME IN MILLIONS)

162



Wealth Management Services – Alternative Investment Products

2023 **2,308** CLIENTS	2023 **10,289** UNIQUE FUNDS
2022 **1,908** CLIENTS	2022 **8,519** UNIQUE FUNDS
2021 **1,636** CLIENTS	2021 **7,420** UNIQUE FUNDS

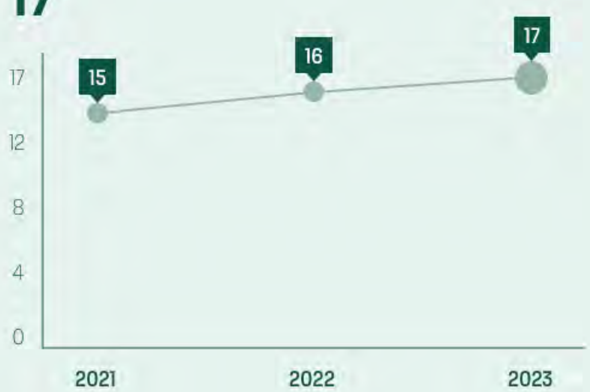
Wealth Management Services - Insurance & Retirement Services

TOTAL PROCESSED SETTLEMENT VALUE
(USD IN BILLIONS)

$243

TOTAL TRANSACTION VOLUME FOR INSURANCE
(IN BILLIONS)

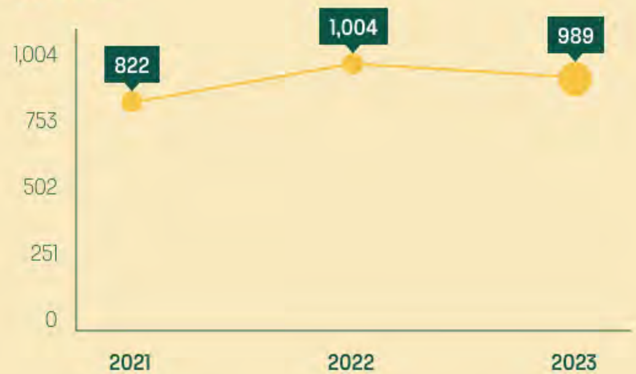
17



Institutional Trade Processing

INSTITUTIONAL TRADE PROCESSING VOLUME OF SECURITIES TRANSACTIONS PROCESSED
(IN MILLIONS)

989



STANDING SETTLEMENT INSTRUCTIONS
(IN MILLIONS)

15.1

"We're proud to share our progress across the four pillars that underpin our Responsible Business strategy: Governance, People, Environment and Prosperity."

KEISHA BELL

DTCC Managing Director, Head of Talent Management and Diversity, Equity and Inclusion (DEI)

EXPLORE OUR RESPONSIBLE BUSINESS REPORT

DTCC

2023

Responsible Business Report

EMBRACING OUR RESPONSIBILITY TO THE WORLD

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INTRODUCTION

GOVERNANCE

PEOPLE

ENVIRONMENT

PROSPERITY

KEISHA BELL

Managing Director
Head of Talent Management
and Diversity, Equity & Inclusion

WATCH KEISHA'S VIDEO

Responsible Business Report

DTCC's purpose-driven culture enables us to embrace our mission and values with excitement and energy. Our mission is unique in the financial services industry, and it helps drive our considerations for environmental and social impact strategy. We are led by our role to secure the financial stability of the global capital markets, which is underpinned by championing innovation and sustainability while supporting our people and our business with empathy and integrity.

Our framework comprises four pillars — governance, people, environment, and prosperity, following the World Economic Forum's Measuring Stakeholder Capitalism recommendations. This framework enables us to identify the risks and opportunities in each area and serves as a guide for how we can maximize the positive effect we have on society and help us to carefully manage the environmental and social impact of our business.

We have chosen to focus our Environmental, Social & Governance (ESG) priorities based on research and topics that are relevant to our people and our business.

Diversity, equity and inclusion — three key pillars of the ESG framework — take center stage. Through targeted initiatives and open dialogue, we have a workplace that not only celebrates differences but also values the unique strengths that each member of our diverse team brings to the table. This approach has been underscored by activities such as Men Advocating Real Change (MARC) training and a strong focus on bringing new talent from a variety of diverse sources.

Corporate Social Responsibility (CSR) remains an integral part of our identity in all of the regions where we are based. From supporting local communities to championing global causes, our collective efforts in 2023 have demonstrated how strong we are in this area, demonstrated by our strong employee participation rate in terms of volunteer hours and giving opportunities.

As we publish our third ESG report, we remain focused on building our ESG strategy to achieve our goals. This strategy will continue to evolve to reflect new challenges and needs. And, as it does, we will embrace our responsibilities and strive to contribute to sustainable economic growth—helping to protect healthy markets, enhance our own business resiliency, and deliver positive impact for our clients, employees, and communities.

Governance

GOVERNANCE IS FOUNDATIONAL TO ACHIEVING LONG-TERM VALUE.

In this section, you will see metrics and disclosures outlining DTCC's approach to good governance, including:

- OUR PURPOSE, MISSION AND VISION
- GOVERNANCE BODY COMPOSITION
- APPROACH TO MANAGING ETHICAL BEHAVIOR
- RISK MANAGEMENT AND OVERSIGHT

A PURPOSE-DRIVEN ORGANIZATION

DTCC's leadership in the industry is underpinned by our role as a steadfast partner — safeguarding and advancing the global financial markets and uplifting the communities where we live and work. We are committed to attracting and developing top talent through our human capital strategy, enabling employees to fulfill their roles with excellence and unwavering integrity, as well as fostering a culture of belonging and respect for individuals. We are responsible corporate citizens, actively advancing ESG principles and managing related risks. At DTCC, our company is not just a place to work — it's where our people make a difference every day.

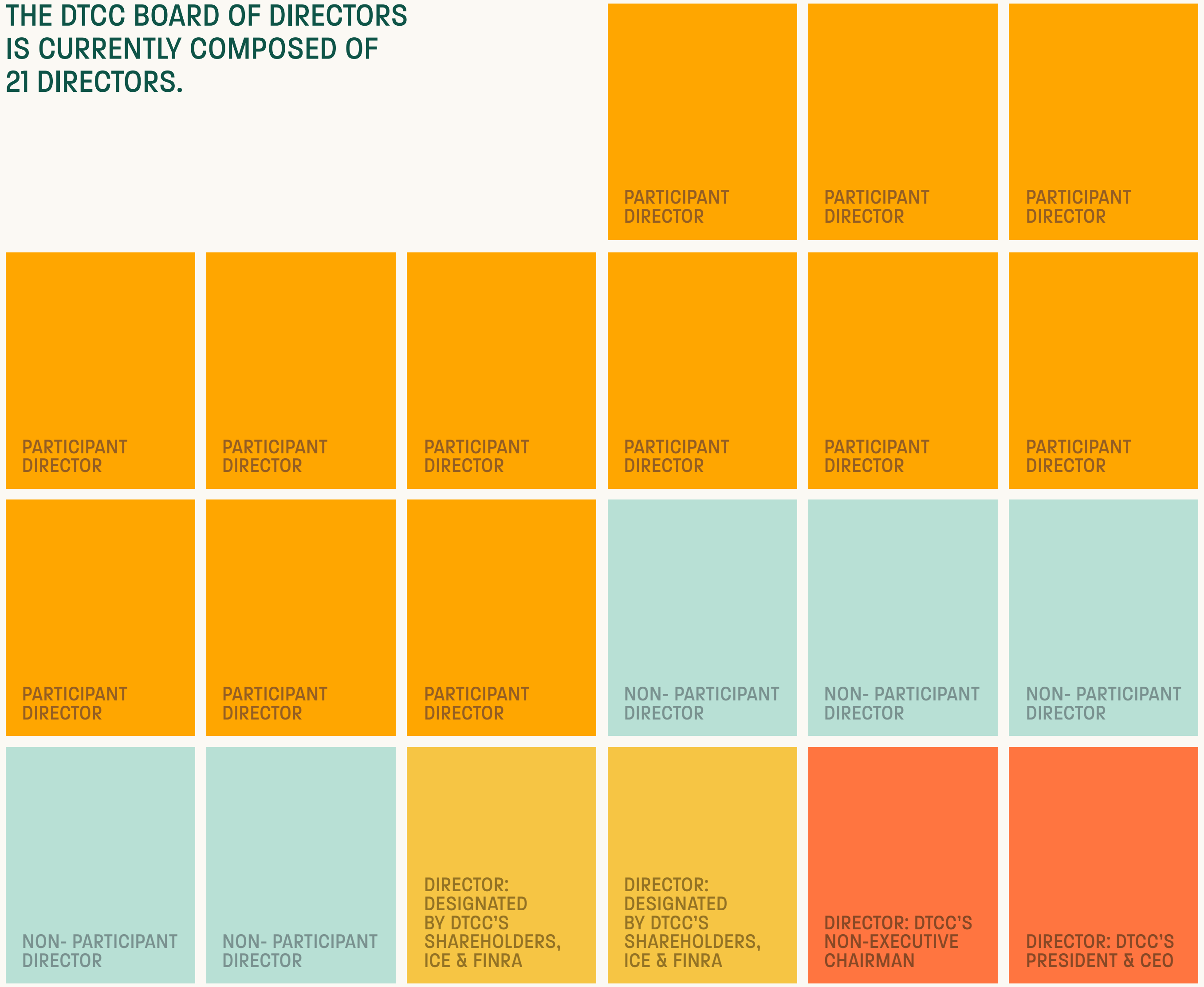
To learn more about DTCC's vision for our future, read our CEO Letter. To learn more about our ESG priorities, click here.

"I am passionate about DTCC's value of responsible citizenship. By telling DTCC's story of social and environmental impact through rating agency surveys, client questionnaires and annual reporting, we can demonstrate that DTCC has sound policies and responsible business practices."

POLINA YAFIZOVA
DTCC CSR & ESG Reporting Associate

GOVERNANCE BODY COMPOSITION

THE DTCC BOARD OF DIRECTORS IS CURRENTLY COMPOSED OF 21 DIRECTORS.



- **12** are participant Directors who represent clearing agency members, including international broker/dealers, custodian and clearing banks and investment institutions
- **5** are non-participant Directors
- **2** Directors are designated by DTCC's preferred shareholders, ICE and FINRA
- **2** Directors are DTCC's Non-Executive Chairman and its President and Chief Executive Officer

The Board plays a critical role in setting the strategic direction of DTCC, providing oversight and offering guidance on topics including risk management, regulatory matters, technology, innovation and the development of new products and services.

Below is information about DTCC's Board of Directors' ESG-related competencies, tenure, gender and race and ethnicity. For full bios and information about the nomination and election process, mission statement and charter, code of ethics and DTCC's principles of governance, click here.

DTCC'S BOARD OF DIRECTORS' CONSTITUENCY, TENURE, GENDER AND RACE / ETHNICITY

5 Yrs. & 12 Yrs.

5-YEAR TERM LIMIT FOR PARTICIPANT DIRECTORS
12-YEAR TERM LIMITS FOR NON-PARTICIPANT DIRECTORS

5 & 2

5 NON-PARTICIPANT & 2 DIRECTORS DESIGNATED BY PREFERRED SHAREHOLDERS

9

SELL-SIDE

3

BUY-SIDE

1

FINTECH

29%

29% WOMEN - 21 BOARD MEMBERS
(6 WOMEN, 15 MEN)

5%

5% RACIALLY OR ETHNICALLY DIVERSE *
(*ONE ASIAN MALE)

DTCC'S BOARD OF DIRECTORS' ESG-RELATED COMPETENCIES

THIS INFORMATION IS CURRENT AS OF JANUARY 2024.

THESE ARE COMPETENCIES RELATED TO DTCC'S ESG PRIORITIES. ANY BOARD DIRECTOR WHO HAS SOME, CONSIDERABLE OR EXTENSIVE EXPERIENCE IN EACH OF THESE COMPETENCIES IS INCLUDED IN THE PERCENTAGE CALCULATIONS.

DTCC'S EXECUTIVE COMMITTEE GENDER AND RACE/ETHNICITY

55% WOMEN
11 MEMBERS
(6 WOMEN, 5 MEN)

27% RACIALLY OR ETHNICALLY DIVERSE

For more information on DTCC's Executive Committee, click here.

ETHICAL BEHAVIOR

The DTCC Code of Conduct for Employees and The DTCC Code of Conduct for Contingent Workers express and reinforce our foundational values and demonstrate the commitment of all who work at DTCC to conduct themselves with the highest integrity.

The Code of Conduct also features clearly defined reporting and escalation guidelines and consequences up to and including termination of employment for policy violation.

Here are some of the key topics covered in the Code of Conduct:

- Compliance with the law: this includes ethical business practices, fraud and bribery prevention, anti-money laundering, conflicts of interest and global sanctions.
- Protection of confidential information: this includes confidential client information, insider trading prohibition and protection of Personally Identifiable Information (PII).
- Safeguarding DTCC assets and reputation: this includes information security, electronic communications, social media activity, intellectual property and records management.
- Ethical conduct: this includes personal integrity and professional conduct; anti-harassment and anti-discrimination; whistleblower policy; diversity, equity and inclusion; gift and entertainment restrictions; and workplace safety.
- Community impact and commitments: this includes human rights and social responsibility.

There are preventive measures in place to build awareness of expectations and discourage violations. This includes a global ethics hotline, awareness and remedial training, communication campaigns, monitoring and reporting and employee and people manager outreach.

100% of DTCC employees and contingent workers are required to take training on anti-bribery and anti-corruption policies. In addition, contingent staff who access DTCC's networks are subject to DTCC's Code of Conduct and must complete related training.

In 2023, over 99% of employees and contingent workers completed the training on time.

To learn more, visit the DTCC Code of Conduct page.

ANTI-CORRUPTION

DTCC believes that corruption poses serious legal and reputational risks to the business. At DTCC, compliance with applicable laws and regulations is taken very seriously.

Throughout the global markets in which we operate, DTCC is subject to laws regarding the prevention of bribery and corruption, money laundering and insider trading and is responsible for enforcing related sanctions. DTCC has controls in place to monitor identification of risk and compliance with regulatory requirements. Controls are designed to reduce both the likelihood and the impact of illegal behavior.

DTCC is committed to maintaining the highest standards of integrity and security in our operations. To safeguard the interests of our clients and the financial markets, we employ robust measures for monitoring and responding to potential fraud. In the event of suspected fraudulent activity by staff, members of a coordinated working group, which includes representatives from Human Resources, Technology Risk Management/Insider Risk, Global Security Management, Compliance and Legal, engage with business management as appropriate to facilitate timely reporting and resolution.

Additionally, DTCC employees must comply with personal investment account disclosure requirements and trading restrictions. Robust controls are in place to prevent trading based on material non-public information.

To protect itself from engaging with unlawful entities and comply with all global sanctions regulations, DTCC has established a Global Sanctions Policy.

DTCC has implemented a program to screen clients, agents, employees, third parties and securities against the various global watch lists to prevent DTCC from conducting business with entities and individuals listed.

DTCC Compliance periodically screens all vendors for relevant adverse news that may indicate participation in modern slavery, bribery or corruption. Adverse news screening is also carried out for new clients as part of the onboarding process.

A 2023 Corporate Compliance Risk Assessment determined that DTCC's controls are sufficient to address regulatory requirements and identified bribery and corruption risks. The Compliance Risk Assessments team did not identify any material remediation or mitigation to be undertaken.

100% OF EMPLOYEES AND CONTINGENT WORKERS ARE REQUIRED TO COMPLETE THE TRAINING

PROTECTED ETHICS AND REPORTING MECHANISM

At DTCC, our employees and clients have access to a global ethics hotline as well as supportive measures such as a whistleblower policy, all of which are highlighted in our Code of Conduct. These resources give employees the ability to seek advice, share any information or concerns, or report conduct by anyone in the Company that they believe to be in violation of policy, ethics or the law.

Employees can report concerns 24 hours a day, 7 days a week and have the option to do so anonymously. DTCC Human Resources collaborates with relevant partners to investigate and resolve issues, with follow-up and reporting as appropriate.

RISK OF INCIDENT OF CHILD LABOR

Our suppliers are predominantly highly skilled IT professionals, putting DTCC at low risk of incidents of child labor or modern slavery. Despite this, we recognize the dangers of child labor and modern slavery and support the Modern Slavery Act. This is why DTCC will not offer any employment (including internships) without compensation, and we closely monitor our vendors and address any suspected non-compliance with our vendor engagement requirements.

To learn more, visit the DTCC Code of Conduct page.

RISK AND OPPORTUNITY OVERSIGHT

Risk management is a primary function of DTCC and has been since the organization's inception over 50 years ago. The company's risk management framework includes effective and efficient identification, measurement, monitoring and control of credit, market, liquidity, systemic, operational, cyber and other risks for the DTCC enterprise, our members and the marketplace.

To learn more, visit our Managing Risk website.

A risk that has gained prominence over the past few years is climate-related risk. DTCC's primary exposure to climate-related risk is in the form of direct physical risk to our sites around the world. Each of our DTCC locations has its own set of risks associated with climate change. Recent observations and modeling indicate a global mean sea level rise, which at some point may affect DTCC offices, staff and third parties located along coastlines. In addition, critical infrastructure and resources in metropolitan regions may have underlying vulnerabilities, including age, deterioration, construction, or maintenance flaws and usage that exceeds capacity. This infrastructure becomes directly vulnerable to climate change risk factors, such as extreme heat, heavy downpours, sea level rise and coastal storms. Additionally, interdependent infrastructures create vulnerabilities that can develop into cascading impacts.

DTCC's businesses are not currently directly impacted by transition risks, which are defined as the risks associated with a move toward a lower-carbon economy.

OUR ACTIONS

As risks have evolved, DTCC has responded by implementing risk mitigants or increasing resources to be able to absorb these risks. DTCC continuously reviews and updates its risk tolerance across categories to track the level of risk relative to DTCC's risk appetite. As of now, standardized quantitative metrics on climate risk exposure have not yet been fully agreed upon and widely adopted by the financial industry. As such, DTCC's assessment and actions at this point are driven more by qualitative monitoring of climate risk.

MANAGING RISK FOR FINANCIAL MARKETS

Given the increasing importance of climate-related risk, DTCC's Systemic Risk Office (SRO) continues to include climate-related financial risk as one of the many potential systemic threats it actively analyzes and monitors.

The SRO conducts a systemic risk barometer survey, which is an annual pulse check of member and non-member firms that monitors emerging trends on significant risks that may impact the safety, resiliency and stability of the global financial system. Climate risk has consistently placed among the top risk concerns for market participants since it was added to the survey a few years ago.

Building on DTCC's 2023 white paper, "Climate-Related Financial Risk: A Financial Market Infrastructure's Perspective," which provides insight on how climate-related financial risk applies to DTCC and other Financial Market Infrastructures (FMIs), DTCC initiated an effort to assess its risk management practices, policies, procedures and existing governance frameworks with respect to the management of climate-related risks.

DTCC also continues to gather more information on risk exposure related to ESG, with a particular focus on climate-related risk exposure.

Given DTCC's subsidiaries' roles as central counterparties, one key aspect of their climate-related risk exposure is indirect exposure via their member firms.

As a result, DTCC's Counterparty Credit Risk (CCR) department has begun to incorporate an assessment of each member's exposure to climate-related risk into the overall assessment of credit risk. CCR has reviewed the Task Force on Climate-related Financial Disclosures (TCFD) reports from its publicly traded full-service members, and CCR completed its first annual cycle requesting responses to due diligence questions from each member related to their physical and transition risk. The responses from member firms in the first year of this due diligence effort has confirmed that the processes, mechanisms and metrics for monitoring climate risk exposure are still in their early days for many financial firms.

Financial market participants are still attempting to gather and develop more information about this climate risk exposure, while regulators work on developing a standardized approach to regulating this risk. On March 6, 2024, the United States Securities and Exchange Commission (SEC) adopted final rules to enhance and standardize climate-related disclosures by public companies and in public offerings. The SEC proposed the rules on March 21, 2022. The final rules will require public companies or registrants to include certain climate-related disclosures in their registration statements and periodic reports, including but not limited to information about:

- Climate-related risks that are reasonably likely to have a material impact on their business strategy, results of operations, or financial condition.
- The actual and potential material impacts of any identified climate-related risks on the registrant's strategy, business model, and outlook.
- Specified disclosures regarding a registrant's activities, if any, to mitigate or adapt to a material climate-related risk.

Although the final rules adopted by the SEC do not directly impact DTCC, DTCC will continue to monitor regulatory developments globally in this space.

BUSINESS CONTINUITY AND RESILIENCY

Within our risk management approach, continuing critical business services to our clients is of utmost importance. This next section discusses our approach to business continuity and resiliency.

DTCC's Business Continuity and Resilience (BCR) department maintains standards and practices for how the organization addresses defined impacts posing a high level of risk to the continuity of enterprise operations, including climate-related risk. DTCC's location and area risk program within BCR was expanded in 2023 to include trending metrics designed to show climate change risk for each DTCC location. Additionally, simultaneous events across geographies will be tracked to assess the impact frequency.

DTCC's BCR program defines location and area risk as a form of operational risk that may be incurred due to significant business disruptions caused by inadequate or failed internal processes relating to the choice of DTCC sites, the unavailability of a site due to external events, or the failure of a site due to the loss of a key external service provider. As such, DTCC's exposure to climate-related physical risk is included in location and area risk.

BCR uses location and area risk profiles to evaluate site-specific risks annually based on standardized threat and vulnerability criteria, which include: major infrastructure failures, man-made phenomena, natural phenomena, geopolitics, politics, crime, proximity to areas with a high-risk profile, proximity to major transportation areas, building infrastructure and security.

To maintain continuity of critical business functions, DTCC's BCR department is responsible for working with business areas to identify instances of key person risk, workforce balance risk and geographic concentration risk. To mitigate these types of risk, BCR utilizes work area recovery strategies that may be employed in the event of a disruption.

For more information, click here and navigate to Business Continuity.

Business continuity exercises test an enterprise's response to physical risk-related scenarios. Operational exercises include workforce balance exercises and tabletops for site-based crisis response teams and senior management, while technology exercises test disaster recovery scenarios impacting DTCC's data centers:

WORKFORCE BALANCE exercises simulate a loss-of-region scenario in which in-scope staff for critical business functions stand down from those functions for one business day and transfer those functions out of region. These exercises test the ability of distributed staff to support core services.

TABLETOP EXERCISES test crisis response teams' ability to respond to an event/incident/crisis. Scenarios for tabletop exercises are drafted using hypothetical threats and impacts collected by DTCC's Business Continuity department on an annual basis from subject matter experts. The annual Threat and Impact Survey is a unique method employed by DTCC to ensure that exercise scenarios are relevant.

TECHNOLOGY EXERCISES test disaster recovery scenarios impacting DTCC's data centers, such as loss of region and/or out-of-region recovery. In each disaster recovery exercise, DTCC's Information Technology team tracks the completion of recovery and verification tasks required for each application that falls within the exercise scope. Dependencies for each application are required to complete within the Maximum Allowable Downtime and Recovery Time Objective assigned to such application.

MODERN APPROACH TO CYBERSECURITY

DTCC understands that cybersecurity is a fundamental priority and requires constant vigilance. Our approach emphasizes continuous assessment of the evolving threat landscape, which includes consideration of cyber risks within the context of ESG. This allows DTCC to proactively adapt our defenses and safeguard our systems. We employ a risk-based cybersecurity framework, enabling us to focus the firm's resources on protecting our most critical assets and enhancing our cyber resilience.

The DTCC Cyber Security & Technology Risk Management (CS&TRM) organization maintains DTCC's information and cyber security risk management program in alignment with applicable regulatory requirements and accepted industry best practices. CS&TRM continues to identify opportunities to strengthen DTCC's risk posture through implementation of preventive and detective controls to mitigate emerging and evolving information security and cybersecurity threats.

This includes implementing advanced threat detection and response processes, refinement of proactive defense measures and alignment of cybersecurity functions across the organization.

Recognizing the interconnected nature of cybersecurity, DTCC actively collaborates with industry peers, regulatory bodies, trade associations and standards bodies. These partnerships foster the sharing of threat intelligence, best practices and the development of coordinated responses. Through this collective effort, DTCC aims to strengthen the security posture of the global financial ecosystem.

Beyond considering direct and indirect impacts of climate change to mitigate potential risks, DTCC believes it is important to be a positive partner in combating the causes of climate change. The Environment section of this ESG report outlines anticipated enhancements to DTCC's existing programs that were designed with this goal in mind.

People

FOSTERING BELONGING AND BUILDING UPON OUR UNIQUE STRENGTHS.

In 2023, we've strengthened our commitment to our employees by continuing to deliver against our Employee Value Proposition (EVP). For instance, we undertook several actions this year to bolster a world-class experience for our colleagues globally, including building new collaboration spaces at many of our sites, enhancing food service programs and upgrading technology and workspaces to foster creativity and innovation. Our aim is to bring people together whether they're on site or remote to inspire, connect and energize teams. Alongside this, we also made progress in increasing the visibility and accessibility of our benefits programs at our non-US sites.

We focused our efforts on renewing our Employee Value Proposition (EVP) and defining pillars that are most likely to influence whether candidates join the firm and current employees stay with us: Community, Growth, Our Ways of Working and Holistic Well-Being. Our EVP — a combination of rewards, benefits and experiences that our colleagues receive in return for the capabilities and contributions they bring to the workplace — is integral to attracting the right talent to DTCC as well as retaining the best and brightest employees.

We know that a strong EVP is more than tangible rewards; it ensures that a person feels a sense of belonging before, during and after they join DTCC. This year's People section provides a comprehensive update on how DTCC is building its workforce for the future.

BUILDING BELONGING WHILE INCREASING REPRESENTATION

While the financial services landscape continues to evolve and all market participants, including DTCC, face new challenges, one cultural attribute remains a constant at our company: fostering belonging. This is critically important because belonging directly impacts our ability to execute our strategy and achieve our Vision to lead the advancement of the global financial markets as the most influential, strategic and tech-focused partner.

At the heart of belonging is a sense of community where colleagues feel secure and supported — essential ingredients that underpin our purpose-driven culture. Building a strong sense of community is an ongoing process, and we continue to prioritize maintaining a workplace where every DTCC employee feels a profound sense of belonging and purpose for our shared goals.

DIVERSITY, EQUITY AND INCLUSION — ACTION AND RECOGNITION

Diversity, Equity and Inclusion — a key pillar of the ESG framework — takes center stage in DTCC's corporate culture and our driving theme: Building Belonging. Through targeted initiatives and open dialogue, we have a workplace that not only celebrates differences but also values the unique strengths that each member of our diverse team brings to the table. This approach has been underscored by activities such as Men Advocating Real Change (MARC) training and a strong focus on bringing new talent from a variety of diverse sources.

Learn More About Diversity, Equity and Inclusion at DTCC

INCLUSION WORKS — SELF-PACED DIVERSITY LEARNING

41% OF EMPLOYEES ARE REGISTERED USERS ACTIVELY LEARNING ABOUT DEI.

SEVERAL EXAMPLES OF CURATED LEARNING, IN PARTNERSHIP WITH DTCC'S ERGS, ARE LGBTQ+ ALLYSHIP, MENTAL HEALTH AND WELLNESS AND A SPECIAL SECTION ON CAREGIVING.

COUNT ME IN — SELF-IDENTIFICATION PROGRAM

37% OF OUR EMPLOYEES SELF-IDENTIFIED, WHICH CONTINUES TO BE ABOVE THE STANDARD BENCHMARK FOR AN ORGANIZATION OF OUR SIZE.

MEN ADVOCATING FOR REAL CHANGE (MARC) TRAINING

RE-LAUNCHED MEN ADVOCATING FOR REAL CHANGE (MARC) TRAINING FOR SENIOR LEADERS POST-PANDEMIC — 70% OF SENIOR LEADERS HAVE COMPLETED THE PROGRAM THUS FAR, WITH PLANS TO EXPAND TO DIRECTORS.

DIVERSE MENTORING CIRCLES PILOT

PILOTED THE DIVERSE MENTORING PROGRAM, A 6-MONTH PROGRAM WHICH PROVIDES BLACK AND AFRICAN AMERICAN EMPLOYEES WITH FORMAL 1-ON-1 AND GROUP MENTORING.

EMPLOYEE RESOURCE GROUPS

Our ERGs continue to play a key role as brand ambassadors and culture carriers of the organization. Their work is organized across three areas: Workplace Belonging, Professional Development and Recruitment. With an increased focus on closer collaboration in 2023, we saw more of our ERG leaders working together to produce events and initiatives that made an impact across the firm and in the community. In a continued effort to expand global participation and professional development opportunities, we achieved significant membership increases, particularly in Chennai and Manila, and have a total of 215 employees serving on the broader ERG Leadership Team across the globe. DTCC's overall ERG membership is also well above the benchmark — 46% of DTCC's employees are involved with an ERG, compared to the benchmark of 8.5%, as calculated by The Society for Human Resource Management.

DTCC'S EIGHT ERGS ARE REPRESENTED BY THE EMBLEMS ABOVE: ARISE, BOLD, IGNITE, MVP, PRIDE+, UNIDOS, WETHRIVE, WINS

Learn More About DTCC's Eight ERGs

“Owning your development brings limitless possibilities for career growth. Plotting your goals is important, but finding the right resources can sometimes pose a challenge. Luckily, DTCC knows exactly how to address this through its development pillars and opportunities. By taking a leadership role in the ARISE ERG, I was able to immerse myself in developing new skills and strengthening existing ones. Joining ARISE led me to meeting mentors and sponsors whose constant feedback and recognition were instrumental in my professional development and eventual promotion. Most importantly, through ARISE, I was able to promote diversity, equity and inclusion as an integral part of the success of every organization, and ensure that everyone at DTCC feels safe, connected and respected.”

MARIDY B. BERINGUELA
DTCC Compliance Senior Associate

EXTERNAL RECOGNITION FOR DEI

Our commitment and efforts have earned DTCC recognition through a variety of awards:

HUMAN RIGHTS CAMPAIGN (HRC) CORPORATE EQUALITY INDEX (CEI)
Earned 100% on the HRC CEI for the 11th consecutive year

SERAMOUNT
Placed on all of Seramount’s indexes:

FAIRYGODBOSS
Several recognitions from FairyGodBoss:

DEMOGRAPHIC DIVERSITY DATA

The essence of DTCC consists of its people, core values and a fundamental belief in inclusion — who we are and how we operate together to support our clients and the industry. We are committed to fostering a thriving community and creating a workplace that looks like the world that we serve.

Read More: Our Demographic Diversity Data

DTCC'S COMMITMENT TO SUPPLIER DIVERSITY PROGRAM

DTCC remains committed to fostering a diverse and inclusive supplier network that not only delivers results but also drives positive change in the communities where we live and work. DTCC continues to invest in its relationships with diverse suppliers — through collaboration and equal opportunity, we are transforming the landscape of supplier diversity.

Learn More About DTCC's Vendor Diversity

SOURCING, RECRUITING AND RETAINING DIVERSE TALENT

A key part of fostering belonging is our retention, mobility and recruitment strategy. We pride ourselves on identifying top-tier talent from within the company and diverse external sources.

DTCC's 2023 strategy for attracting diverse talent was to prioritize the use of inclusive recruiting platforms, build and strengthen relationships with our communities and leverage mentorship programs and Employee Resource Groups. DTCC also ensured preparedness for the evolving talent landscape by expanding our talent pools, raising brand awareness and engaging prospects on a future-needs basis. These actions have prepared for the continuing and dynamic hiring needs of the organization.

DIVERSITY SOURCING

The Diversity Sourcing group focuses on enabling DTCC to improve its diverse talent pool. As a result, DTCC continues to see steadily increasing growth throughout several key areas. Driven by our dynamic reporting capabilities, Diversity Sourcing has been able to provide insight into the effectiveness of our current programs, deliver to our internal partners and identify areas of opportunity.

Furthermore, Diversity Sourcing has been able to maintain and expand partnerships with ALPFA and Grace Hopper. The function has also begun cultivating innovative events, such as DTCC's Open House series, which has seen a higher-than-expected rate of prospective candidates and applicants. Directly sourced candidates have also increased to 80 from 78 and have seen a higher-than-average interview rate of 28%. Diversity Sourcing also continues to partner with several Historically Black Colleges and Universities (HBCUs) as well as Hispanic Serving Institutions (HSIs), not only to drive awareness of DTCC in these communities but also to develop a greater talent pipeline.

ERG RECRUITING TRIBE

To standardize and increase ERG recruiting engagement, we launched a revolutionary ERG Recruiting Tribe as part of our ERG structure in 2022. The Tribe, composed of a Tribe Lead, Tribe Portfolio Manager and eight four-member Squads with one Squad Lead, leverages our eight ERGs to support Diversity Sourcing. Each Squad is aligned to the diverse community that its ERG supports.

Recruiting Tribe members partner with our Talent Acquisition team to improve DTCC's diverse talent pipeline by providing referrals and representing DTCC at external events with our diversity partners, such as conferences, open houses, career fairs, and more.

As a result of the ERG Recruiting Tribe's efforts, DTCC interacted with 165 unique diverse prospects, of which 72% applied to roles at DTCC. Of all ERG Recruiting Tribe prospects, 41% moved through to the interview stage, compared to an average of 3% overall. Finally, 13% of applicants received offers, all of which were accepted.

TRIBE LEAD: ABRAHAM GIRGIS
Prioritizes the opportunities

TRIBE PORTFOLIO MANAGER: SWAPNA SATCHIDANANDA
Manages the overall day-to-day decision making

EXECUTIVE SPONSOR: PHIL ANDERSON
Provides overall guidance and strategic direction

CONTINUED SOURCING PARTNERSHIPS

HACKERRANK

In addition to in-person events, DTCC has also continued its partnership with HackerRank, as well as many other inclusive sourcing platforms. In 2023, DTCC hosted two coding events, one in July and the other in October. DTCC had more than 20,000 worldwide registrations between the two events and more than 3,000 applicants originating from these coding contests. The Talent Acquisition Team is beginning to realize a number of hires with several other applicants continuing to progress through the selection process.

LEE HECHT HARRISON (LHH)

Lee Hecht Harrison (LHH) is a global talent advisory organization focusing on placing individuals who have been displaced, primarily within the financial services industry. Through DTCC's partnership with LHH, we facilitated three DTCC information sessions in 2023 (June, October and December) via LHH's Global Connect Forum platform. During these sessions, DTCC engaged with almost 600 potential candidates, resulting in 150 new applicants.

HANDSHAKE

DTCC's partnership with Handshake allows the campus recruitment team to connect directly with students and young alumni at 180 minority-serving institutions, ensuring that DTCC is fulfilling its commitment to creating a workplace that reflects the diversity of the world.

In 2023, DTCC facilitated six virtual recruiting events with Handshake, engaging with more than 660 prospects, resulting in 170 new applications. The firm is actively interviewing these applicants for the 2024 internship and EDGE programs. DTCC also created 11 campaigns on Handshake to either promote open roles or provide opportunities for students to engage directly with the firm through various events. Through these campaigns, DTCC reached more than 27,000 candidates and received almost 600 applicants.

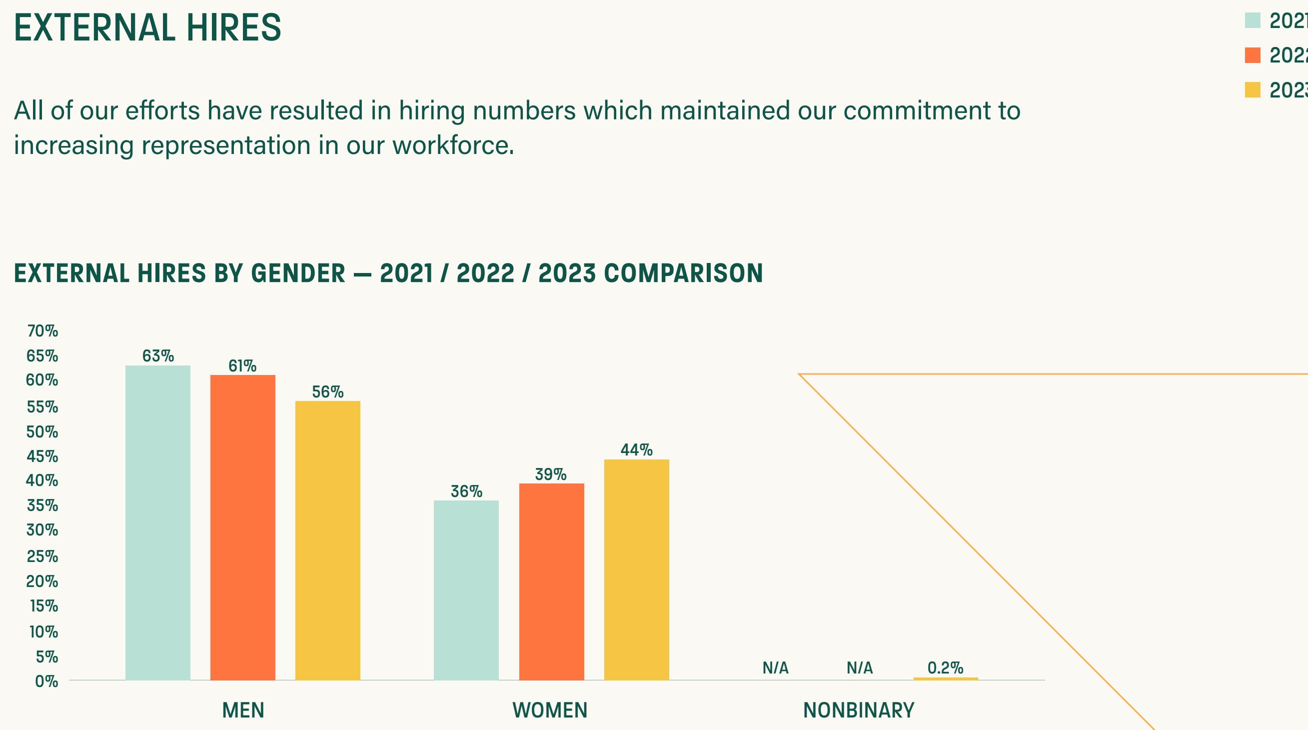
INCREASING BRAND AWARENESS

Through these various recruiting platforms, as well as radio, social media and TV ads, we have been able to make significant strides in our efforts to increase brand awareness. These efforts have resulted in our unique applicant percentage increasing by 174% over the past two years.

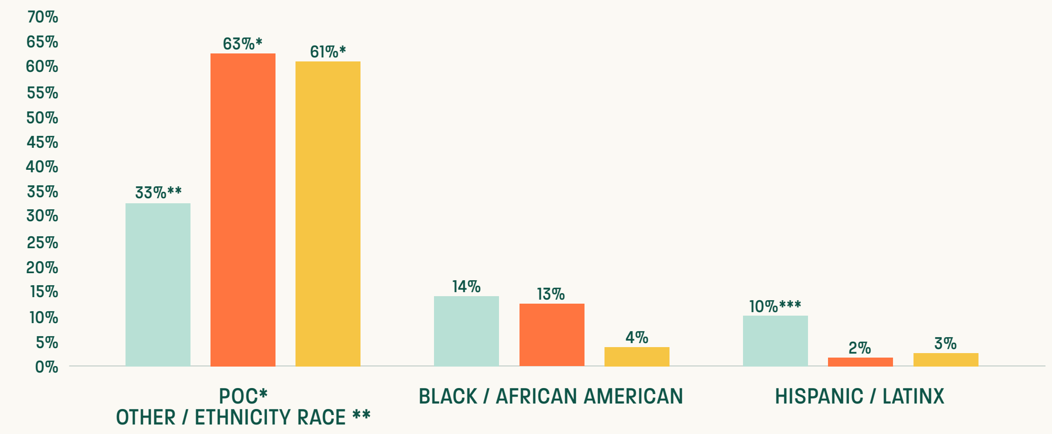
EXTERNAL HIRES

All of our efforts have resulted in hiring numbers which maintained our commitment to increasing representation in our workforce.

EXTERNAL HIRES BY GENDER — 2021 / 2022 / 2023 COMPARISON



EXTERNAL HIRES BY ETHNICITY / RACE — 2021 / 2022 / 2023 COMPARISON

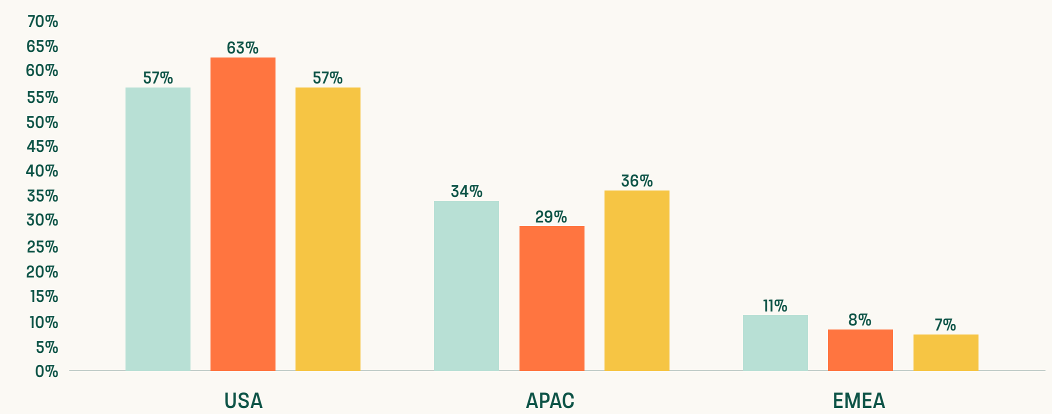


* POC = Asian, Black or African American, Hispanic or Latino, Native Hawaiian or other Pacific Islander and Two or More Races

** Other Ethnicity/Race includes American Indian or Alaska Native, Asian, Native Hawaiian or other Pacific Islander, and two or more races

*** Decreases in the number of individuals who identify as Hispanic or Latino is attributed to more inidividuals self-identifying as two or more races.

EXTERNAL HIRES BY REGION — 2021 / 2022 / 2023 COMPARISON



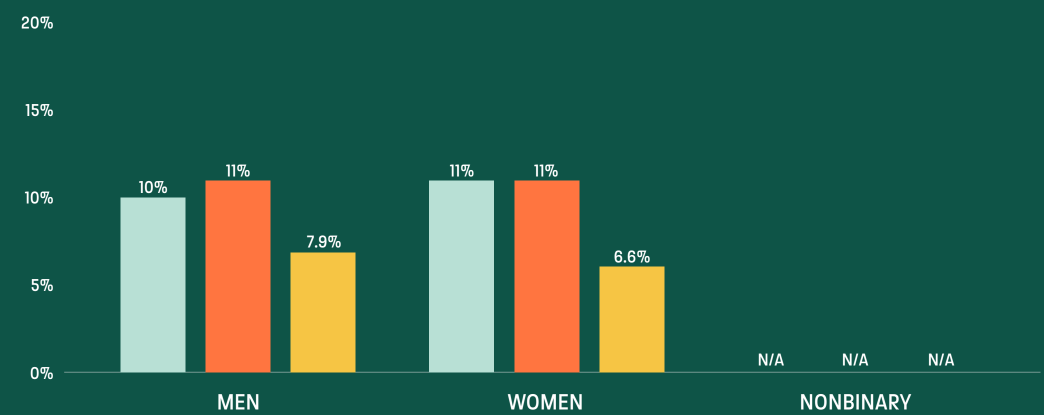
MITIGATING TURNOVER

We're proud to say that DTCC is fast becoming a recognized employer of choice for the industry's top talent, and it's clear that the DTCC culture remains strong and vibrant as evidenced by our continued low attrition rate of 7.1% in 2023.

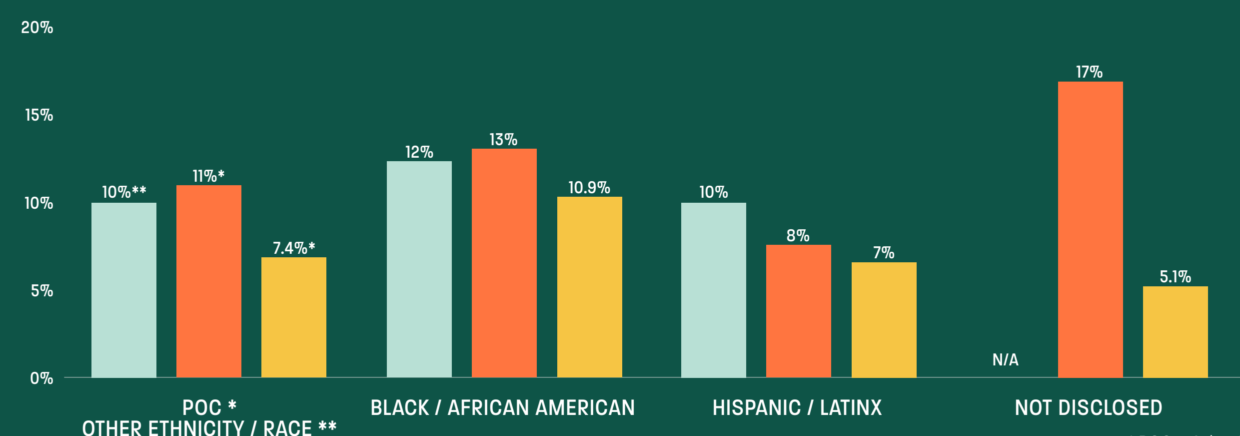
2021
2022
2023

TURNOVER BY GENDER — 2021 / 2022 / 2023 COMPARISON

* No Nonbinary Turnover in 2021, 2022, or 2023



TURNOVER BY ETHNICITY / RACE — 2021 / 2022 / 2023 COMPARISON



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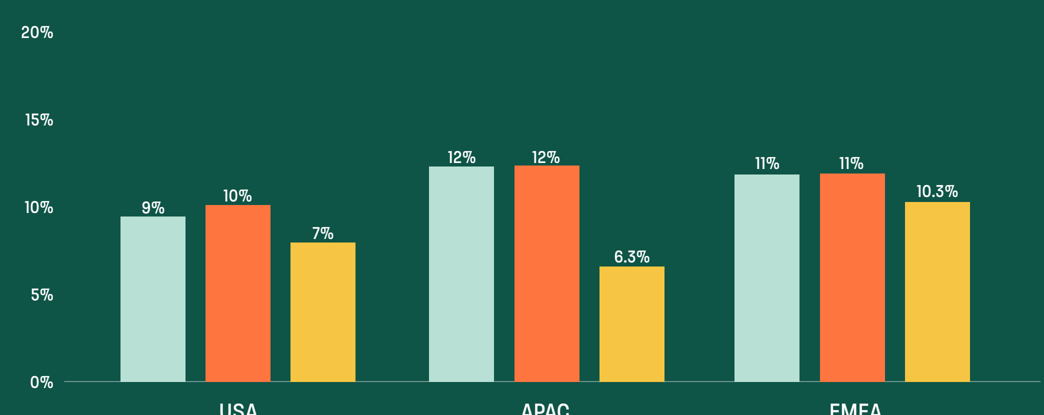
** Other Ethnicity/Race includes American Indian or Alaska Native, Asian, Native Hawaiian or other Pacific Islander, and two or more races

TURNOVER BY REGION — 2021 / 2022 / 2023 COMPARISON



PROMOTING PAY PARITY

Pay equity is essential to attracting and retaining a diverse and inclusive workforce. More than that, it's a matter of fairness and a reflection of our commitment to creating an environment that respects and rewards the contributions of all employees regardless of race, sex, religion or other characteristics. At DTCC, we focus on pay equity among ethnicities in our U.S. locations and across genders in our global workforce.

DTCC provides market-competitive pay and benefits that attract talent, foster employee engagement and commitment and motivate employees to achieve sustained performance over the long term. We work closely with business leaders and hiring managers to foster pay parity across all employees.

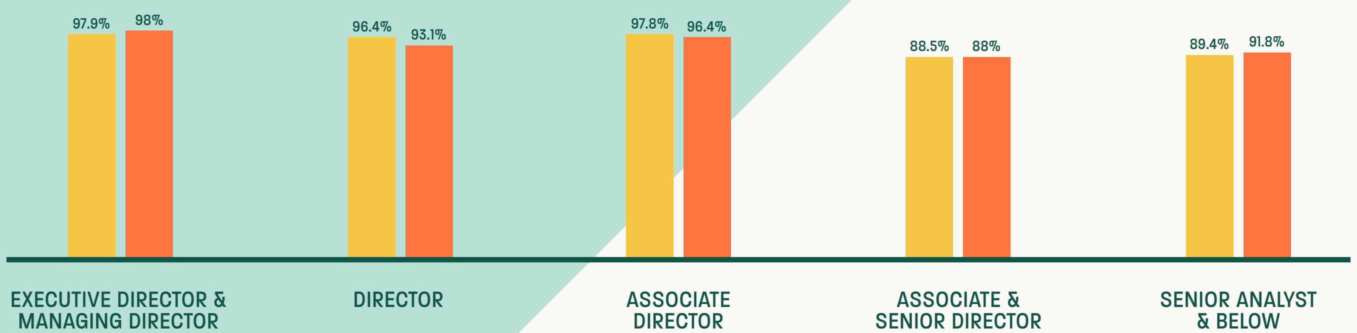
UNITED STATES

Our U.S. gender pay equity review shows female DTCC employees' salary and total compensation as percentages of male employees' earnings, as well as African American and Latinx employees' salary and total compensation as percentages of white peers' earnings.

Across each corporate title, women are compensated at 90.3% or greater relative to their male peers. Our ethnicity pay equity review found that our African American and Latinx employee total compensation at all levels is 88% or greater relative to white peers.

While we've maintained these statistics from 2022 and there are various factors impacting them, we remain committed to reaching 100% pay parity. To achieve this, we're taking several actions, including annually reviewing gaps in pay and making recommendations to adjust salaries.

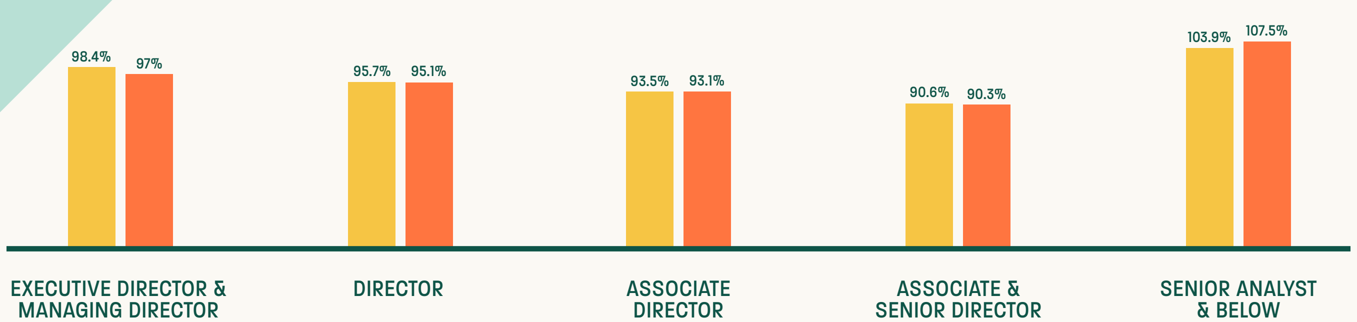
2023 US ETHNICITY PAY EQUITY
AFRICAN AMERICAN AND LATINX PAY AS A PERCENTAGE OF WHITE PEERS' PAY*



2023 SALARY
2022 TOTAL COMPENSATION

* AS OF SEPTEMBER 1, 2023

2023 US GENDER PAY EQUITY
FEMALE PAY AS A PERCENTAGE OF MALE PEERS' PAY*



2023 SALARY
2022 TOTAL COMPENSATION

* AS OF SEPTEMBER 1, 2023

UNITED KINGDOM

Annually, we are required by UK regulation to publish the gender pay gap for DTCC Europe. Unlike the global pay equality review, this review is irrespective of key compensation drivers such as location, role, responsibilities, level in the organization or years of experience. Its focus is an aggregate comparison of all males and females.

Read More: UK Gender Gap

SHAPING THE FUTURE OF WELL-BEING FOR OUR EMPLOYEES

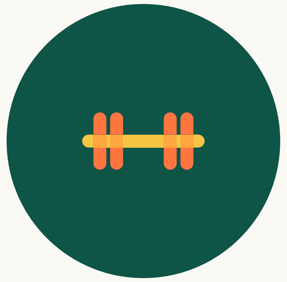
DTCC believes that continually reviewing the emerging trends in employee benefits and responding with meaningful actions will make a significant impact in keeping our employees happier, healthier, more productive and better prepared for the future.

Throughout 2023, our Total Rewards Team has focused on promoting and optimizing DTCC's current benefits offerings and improving the employee experience.

Outside of the US, we have highlighted the availability of our benefits packages more visibly — particularly with the launch of CENTRE, our self-service system for the UK, which makes our benefits offerings more accessible to employees. Globally, we continue to provide a wide range of benefits supporting employees' holistic well-being — physical, mental, financial and much more.

TAILORED REGIONAL BENEFITS

DTCC offers a benefits package that puts the well-being of employees and their loved ones at the forefront. We encourage employees to explore and learn about their options that will help them find strength, balance and stability.



STRENGTH BENEFITS FOR ALL AREAS OF WELL-BEING

BALANCE BENEFITS FOR WORK-LIFE BALANCE

STABILITY BENEFITS FOR NOW AND IN THE FUTURE

THE OFFERINGS VARY BY LOCATION. SEE HIGHLIGHTS ON THE NEXT PAGE.

	STRENGTH	BALANCE	STABILITY
U.S.	GROUP MEDICAL PLAN GROUP DENTAL PLAN VISION PLAN EMPLOYEE ASSISTANCE PROGRAM WELLNESS INCENTIVE PROGRAM	VOLUNTEERING OPPORTUNITIES AND PAID TIME OFF FOR VOLUNTEERING FAMILY CARE LEAVE SURROGACY AND ADOPTION REIMBURSEMENT TUITION REIMBURSEMENT MATERNITY, PATERNITY AND PATERNAL LEAVE OFFERINGS	DISABILITY, ILLNESS AND ACCIDENT OFFERINGS GROUP LIFE INSURANCE PET, LEGAL, AUTO AND HOME INSURANCE / SERVICES COMMUTER BENEFITS CRITICAL ILLNESS
EMEA	ANNUAL HEALTH ASSESSMENTS CYCLE TO WORK GROUP DENTAL PLAN NUFFIELD HEALTH 24/7 GROUP MEDICAL PLAN EMPLOYEE ASSISTANCE PROGRAM EYE TEST AND SPECTACLE VOUCHERS ANNUAL ONSITE FLU VACCINATION PROGRAM SPORTS CLUB SUBSIDY	FAMILY BACKUP CARE AND EDUCATION FLEXIBLE WORKING ARRANGEMENTS MATERNITY, PATERNITY AND ADOPTION LEAVE OFFERINGS VOLUNTEERING OPPORTUNITIES AND PAID TIME OFF FOR VOLUNTEERING TUITION REIMBURSEMENT	CAR MAINTENANCE GROUP LIFE INSURANCE RETIREMENT PLAN INCLUSIVE OF MATCH OFFERINGS INCOME PROTECTION GLOBAL EDUCATION PROGRAM
APAC	EMPLOYEE ASSISTANCE PROGRAM MENTAL HEALTH PROGRAMS GROUP MEDICAL PLAN MATERNITY BENEFITS HEALTH, GYM AND WELLNESS OPPORTUNITIES	ANNUAL LEAVE FAMILY CARE LEAVE VOLUNTEERING OPPORTUNITIES AND PAID TIME OFF FOR VOLUNTEERING MATERNITY, PATERNITY AND ADOPTION LEAVE OFFERINGS	GROUP LIFE INSURANCE DISABILITY, ILLNESS AND ACCIDENT OFFERINGS

PROTECTING THE HEALTH AND SAFETY OF OUR EMPLOYEES

DTCC is committed to the health and safety of all personnel globally. We have established and implemented a global health and safety policy to support a safe working environment for all.

Due to the nature of DTCC's business, it is highly unlikely that our staff would be prone to serious work-related injuries or fatalities. In 2023, there were 36 minor medical events that were reported globally. In those instances where an emergency response was needed, either the member of staff required no further medical attention or they were transported to the hospital, treated and released.

Any time there is a medical-related event on DTCC premises, initial first aid is provided and/or emergency medical services are requested to respond. In 2023, DTCC did not experience any serious work-related injuries or fatalities.

BUILDING SKILLS FOR THE FUTURE

One of DTCC's top priorities continues to be supporting all employees on their personal and professional journeys from the moment they join the firm. In 2023, we intensified our focus on employee development through an assortment of training programs that help our people build the skills and competencies that are essential to grow their careers and advance DTCC's strategy. For example:

141,021

2023 TOTAL HOURS OF TRAINING

25

2023 AVERAGE TRAINING HOURS PER EMPLOYEE

$591

2023 AVERAGE SPEND PER EMPLOYEE

EARLY CAREER PROGRAMS

DTCC's Early Career programs invest in the development and retention of talent that learns and advances together toward leadership roles. Within that shared experience, each cohort simultaneously creates a greater sense of community and camaraderie.

MULTIPLE AWARDS FOR DTCC'S SUMMER INTERN 2023 PROGRAM

DTCC scored in the Top 10 for Financial Services Internship Programs compared to 144 other internship programs, as ranked by Vault-Firsthand.

DTCC was also the only company to rank in the Top 50 for all 4 diversity categories: Overall Diversity, Diversity for LGBTQ+ Individuals, Racial & Ethnic Diversity and Diversity for Women.

APPROXIMATELY 12% OF THE CURRENT FTE'S AT DTCC HAVE PARTICIPATED IN, MANAGED PARTICIPANTS, OR SUPPORTED EARLY CAREER PROGRAMS IN SOME CAPACITY.

EARLY CAREER INTERNSHIP PROGRAM

The Early Career Internship Program is a 10-week program that creates an impactful experience in the interns' career journey, while immersing them into the DTCC culture. Below are the 2023 internship reach and impact numbers.

143 & 85

PARTICIPATION: 143 INTERNS AND 85 MANAGERS

4.7/ 5

OVERALL RATING: 4.7/5

99.3%

COMPLETION RATE: 99.3%

9

BUSINESS UNITS: 9

7

NUMBER OF GLOBAL OFFICES PARTICIPATING: 7 (US AND INDIA)

100%

CONVERSION FROM THE INTERNSHIP PROGRAM TO THE EDGE* PROGRAM IN IT: 100%

"We had a blast of a time here! We spent a lot of time together through team activities and meals which facilitated interactions that enhanced our professional development and our team's overall effectiveness. We witnessed the remarkable journey the company has undertaken to create a culturally inclusive workspace. We participated in a variety of events, including Feeding Tampa Bay and Ice Cream Day, among others. DTCC's commitment to embracing diversity, fostering unity and giving value to each individual and their insights has truly reshaped my perception of corporate culture."

DTCC'S 2023 Intern Cohort

*TO LEARN MORE ABOUT EDGE, PLEASE SEE THE FOLLOWING SECTION.

EDGE (EXPOSURE, DEVELOPMENT, GROWTH AND EXPERIENCES)

DTCC EDGE is a two-year program that provides entry-level employees with a comprehensive understanding of our company, industry and the technical and functional skills needed for the various business areas. Ultimately, this program helps EDGE participants acquire the leadership skills required to become DTCC's future leaders.

1994 — Present (29 Years)

PROGRAM YEARS: 1994—PRESENT (29 YEARS)

571

OVERALL PARTICIPATION: 571 PARTICIPANTS TO DATE

95%

OVERALL COMPLETION RATE: 95%

2023 EDGE METRICS:

65 & 44

PARTICIPATION: 65 EDGE ANALYSTS & 44 MANAGERS

5

NUMBER OF GLOBAL OFFICES PARTICIPATING:
5 OFFICES IN THE US AND INDIA

5

BUSINESS UNITS

INAUGURAL YEAR FOR EARLY CAREER CHENNAI

The Early Career program was expanded to Chennai because of an identified business need and to continue our dedication to a regionally focused model that develops leadership in all places DTCC does business.

“Launching Early Career programs in Chennai was an incredible example of cross-functional collaboration. Everyone was dedicated to creating a highly effective pilot program, resulting in a new talent pipeline for Chennai!”

JENN LOCKE
DTCC Director, People Development Practices

CATALYST LEADERSHIP PROGRAM

The Catalyst Leadership Program is designed to develop the growth mindset, learning agility and future focus for high-performing Directors from across DTCC. We launched the inaugural cohort in June 2022 with 21 participants. During their 9-month program journey, this cohort engaged in a series of workshops called Leadership U and Activating Personal Agility and attended monthly coaching sessions. Participants also received a 360 Feedback and Hogan Assessment to gain insight into their leadership style.

In March 2023, the Catalyst Leadership Program concluded with the cohort coming together with their executive coaches and internal sponsors to reflect on their journeys. A key component of the program was a strategic project, where participants were put into groups and tasked with presenting solutions to a DTCC business challenge, innovative idea, or process improvement. Participants presented their projects to our CEO and Management Committee.

Participants rated their overall experience and proficiency levels in several competencies before and after the program, resulting in an increase in all measured competencies.

22%
INCREASE IN STRATEGICALLY BUILDING A PROFESSIONAL NETWORK

18%
INCREASE IN FUTURE FOCUS

17%
INCREASE IN COMPELLING COMMUNICATOR

17%
INCREASE IN MANAGING LEADERSHIP STYLE & PERSONAL BRAND

"The Catalyst Leadership Program has allowed me to create a powerful personal board of Internal Directors — they are my trusted outlet. We all pick each other up during challenging times, celebrate our successes together and advocate for one another."

SALONI TANNA
DTCC Director, RDS Embedded Risk Manager

"Emboldened by the Program's lessons and armed with a unique and wonderful new network of colleagues, I am grateful to now be much more prepared to better navigate my leadership journey."

JASON TAN
DTCC APAC Compliance Director, DDRS

PREPARING GLOBAL BUSINESS OPERATIONS (GBO) CAREERS FOR THE FUTURE

Over the last two years, teams across Human Resources developed a job family framework for the Global Business Operations (GBO) organization. The goal of this initiative was to provide employees with clarity on their respective roles and to develop tools and resources to help them effectively navigate their career paths. Roles and titles were reviewed and aligned to market data, resulting in new job descriptions. A Career Track portal was also launched to provide more transparency and to support career mobility and advancement.

"This work has truly benefited GBO and the enterprise. The portal allows employees to view career tracks and required skills for development planning and mobility opportunities. We now have a job family framework that provides employees with the tools and information they need to make well-informed decisions on their careers."

JOE BRENNAN
DTCC Managing Director, Global Business Operations

FUTURE-PROOFING THE BUSINESS BY MITIGATING RISK THROUGH TRAINING

In 2023, HR partnered with Enterprise Product & Platform Engineering to create a robust training plan that upskills members of the newly created Network Infrastructure Troubleshooting team. The team was created to multiply the critical troubleshooting expertise of tenured experts in IT to increase the organization's capabilities to solve problems in a timely manner. The training includes traditional coursework as well as hands-on lab scenarios to build depth and breadth across IT disciplines and proactively prioritize our clients' needs.

"Partnering with Enterprise Product & Platform Engineering showcases the power of cross-functional collaboration, as People Development and the business unite with a client-first focus. Together, we have sculpted a robust training curriculum for the Network Infrastructure Troubleshooting team, blending hands-on experiential learning with practical labs and Massive Open Online Courses (MOOCs) from platforms such as Coursera and LinkedIn Learning. This forward-thinking initiative not only elevates our IT expertise but also ensures swift, client-focused problem resolution, marking a significant leap forward in our organizational capabilities."

JOEL HALL
DTCC Director, Talent Development

The People Development team strives to continue investing in DTCC's employees and enhancing the participant experience. Building a strong sense of community is an ongoing process, and DTCC continues to prioritize maintaining a workplace where every employee feels a profound sense of belonging and purpose for our shared goals.

Environment

REDUCING OUR ENVIRONMENTAL IMPACT THROUGH RESPONSIBLE CITIZENSHIP

DTCC is dedicated to making a positive impact within the enterprise and in our local communities by promoting environmental sustainability. This is evidenced by our actions to reduce energy use since 2016 and commitment to protect and preserve the environment. We've aligned our behaviors to the company's core value of Responsible Citizenship, with a focus on increased capabilities including improved energy data governance, enhanced operational framework, Energy and Environmental Certifications and analytical modeling. These tools are necessary steps on the road map to achieve DTCC's decarbonization target.

In 2023, DTCC has implemented and continues to maintain accreditation for both ISO 50001:2018 Energy Management and ISO 14001:2015 Environmental Management standards, certified with TUV Rheinland of North America, for the following sites: Brooklyn, Chennai, Dallas Beltline and Crestside, Jersey City, London, Manila, Tampa Bermuda Green and Wrexham. These standards specify the requirements for establishing, implementing, maintaining and improving an energy and environmental management system.

To learn more about DTCC's energy and environmental policy, click here.

“It takes all DTCC employees to achieve our goal of becoming a more sustainable company. I believe our pursuit of independent certification for our energy and environmental management systems results in more efficient use of resources and reduction of waste while adding a new level of credibility to our conservation efforts through formal recognition that gains the trust of stakeholders.”

CRAIG DEFELICE
DTCC Facilities Director, Workplace Design and Services

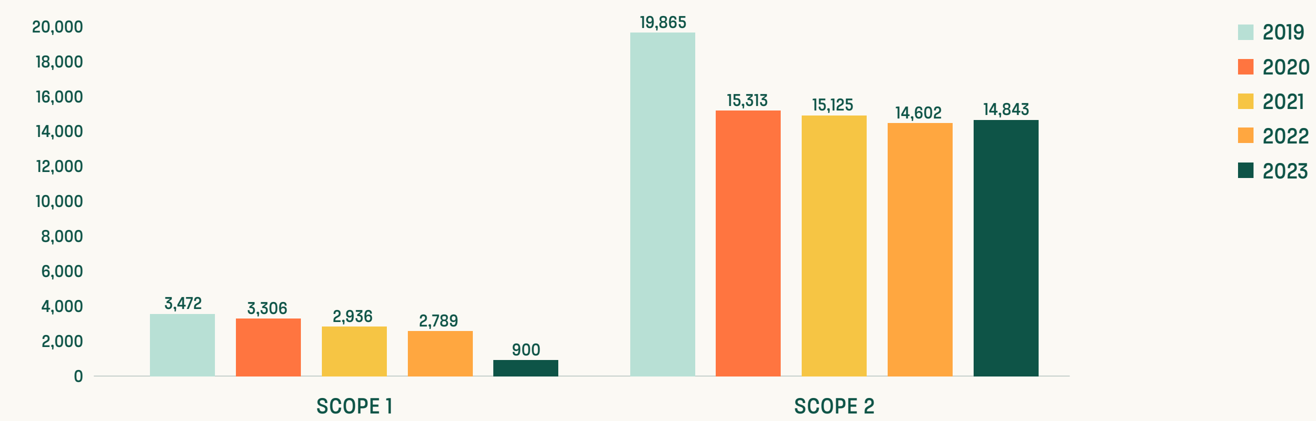
OUR SCOPE 1 AND 2 EMISSIONS DATA (2019—2023)

DTCC’s GHG inventory is consistent with the principles and guidance of the World Resources Institute (WRI) and the World Business Council for Sustainable Development’s (WBCSD) Greenhouse Gas Protocol Initiative (GHG Protocol) for corporate GHG accounting and reporting.

DTCC defines its organizational boundary conditions consistent with the GHG Protocol according to the “control approach” for Scope 1, 2 and 3 sources. The scope of DTCC’s organizational boundaries includes buildings in the company’s ownership or under its control. The “control approach” is the most appropriate organizational boundary for DTCC because it reflects where DTCC can influence decisions that impact GHG emissions. Facilities in DTCC’s boundary include office buildings and data centers.

We show year-over-year Market-Based Emissions, which quantify Scope 1 and Scope 2 GHG inventory based on the utility-specific emissions factors from which DTCC purchases energy. Emissions factors are published by governmental and non-governmental organizations including the United States Environmental Protection Agency (EPA), the United States Environmental Protection Agency (EPA) Mandatory Reporting Rule (MRR), International Energy Agency (IEA) and Department for Environment, Food and Rural Affairs (DEFRA). Additionally, where available, we utilize utility-specific emission factors that support our market-based inventory. As for CY 2023, we utilized IPCC’s Sixth Assessment Report (AR6) as our source for global warming potentials.

MARKET-BASED YOY EMISSIONS BY SCOPE 2019—2023 MTONS (CO2E)



2023 SCOPE 3 EMISSIONS BY CATEGORY

Scope 3 emissions in 2023 are still pending, but we have estimated the results to be similar to prior years’ reporting, since most of the Scope 3 emissions are based on DTCC’s annual spend on goods and services. To view 2022 Scope 3 emissions, please visit the Environment section of the 2022 ESG Annual Report.

MAINTAINING DTCC'S ISO CERTIFICATIONS

DTCC continues to maintain its ISO 50001:2018 Energy Management certification, which is the global energy management systems standard that specifies requirements for establishing, implementing, maintaining and improving an energy management system. Additionally, DTCC maintained its ISO 14001:2015 Environmental Management certification, which provides a framework for organizations to design and implement an environmental management system and continually improve environmental performance. Both certifications were obtained with TUV Rheinland of North America for the following DTCC locations: Brooklyn, Chennai, Dallas Beltline and Crestside, Jersey City, London, Manila, Tampa Bermuda Green and Wrexham.

See the table below for initial ISO certification dates.

CERTIFICATION	CERTIFYING BODY	LOCATIONS	YEAR OF INITIAL CERTIFICATION
ISO 14001:2015 ENVIRONMENTAL MANAGEMENT CERTIFICATION	TUV RHEINLAND OF NORTH AMERICA	BROOKLYN, CHENNAI, DALLAS BELTLINE AND CRESTSIDE, JERSEY CITY, LONDON, MANILA, TAMPA BERMUDA GREEN, AND WREXHAM	MARCH 2023
ISO 50001:2018 ENERGY MANAGEMENT CERTIFICATION			APRIL 2021

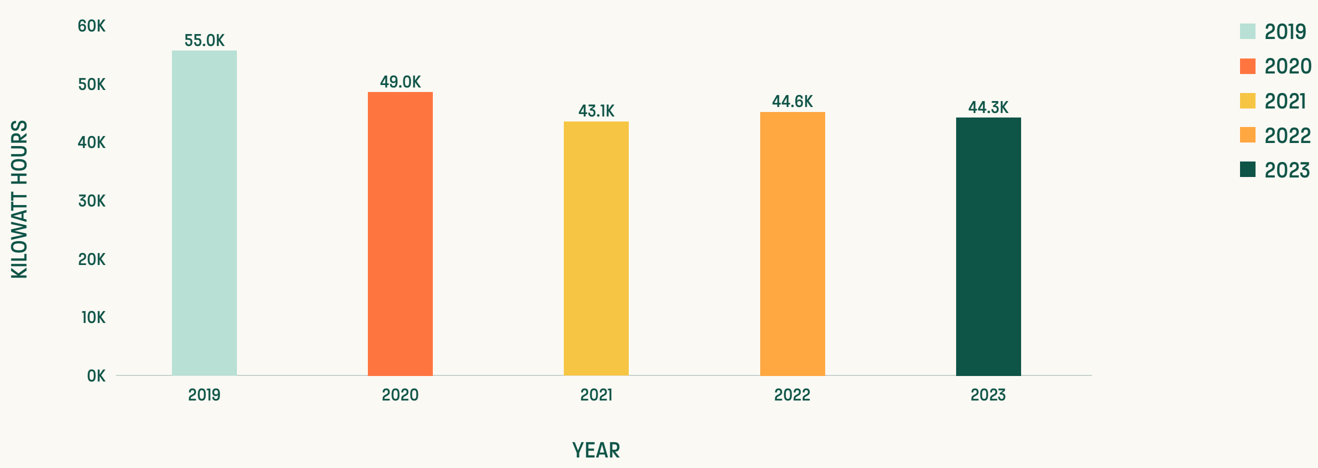
REDUCING WASTE AND INCREASING RECYCLING

In 2023, Workplace Design and Services (WDS) took steps to reduce waste and increase recycling. As an example, WDS streamlined efforts by centralizing waste collection and recycling at DTCC offices. "We removed trash cans because recycling, such as plastic bottles, was inadvertently being mixed with wet trash. As a result, we weren't recycling as much as we could," said Nick Dalesandro, DTCC Executive Director, Workplace Design and Services.

To further amplify these efforts, DTCC is starting to phase out single-use water bottles in its pantries and cafes. DTCC has given its employees a reusable water bottle. The goal is to eventually minimize the use of single-use bottles, which would require people bringing in and refilling their reusable water bottles. Furthermore, DTCC is beginning to provide soft drink dispensers in addition to the water dispensers, which will further lead to reducing single- use bottles. Another effort is to eliminate plastic, such as snack packages. DTCC offers bulk snacks, which can be dispensed into a company-distributed reusable snack bowl.

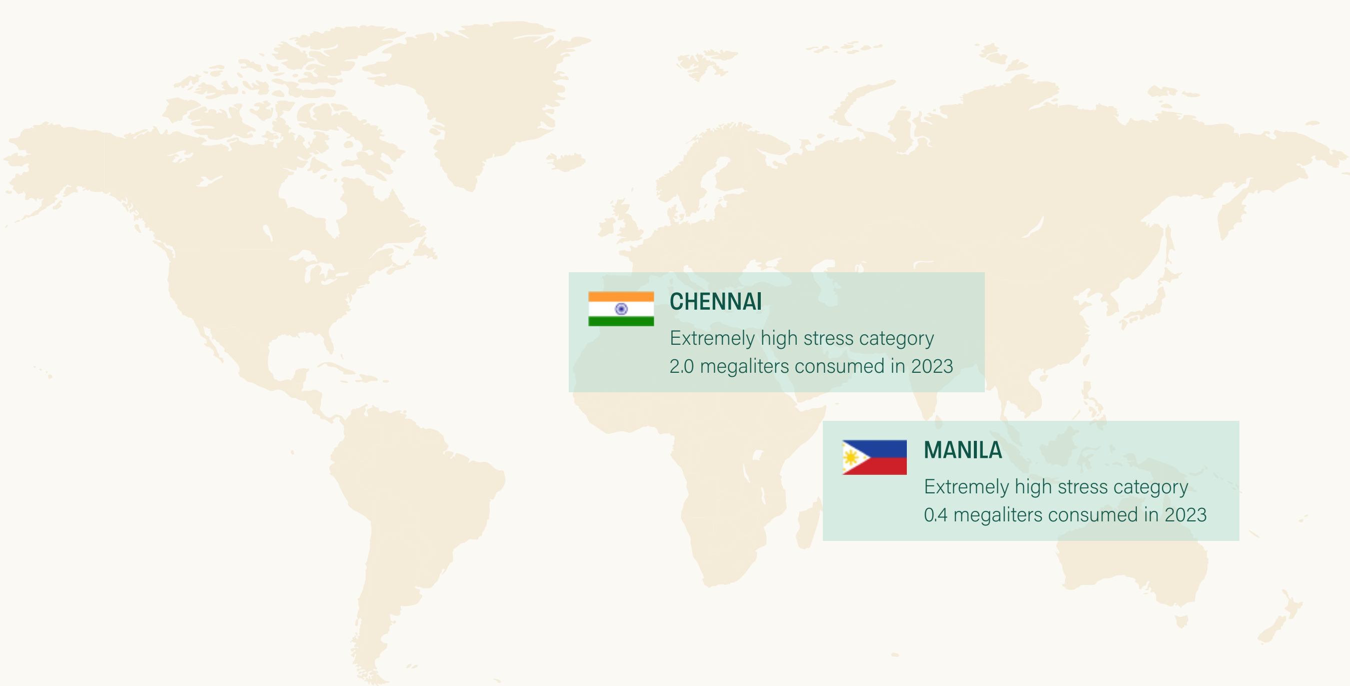
Everyone is encouraged to be more sustainable through these and other daily actions, for the greater good of the company and the planet as a whole.

DTCC AIMS TO CONSISTENTLY REDUCE ITS ENERGY CONSUMPTION



WATER CONSUMPTION AND WITHDRAWAL IN WATER-STRESSED AREAS

The following DTCC sites are located in higher-tier water-stressed areas, which equate to 11% of our total footprint:



SUSTAINABILITY WORKS — SELF-PACED ESG-RELATED LEARNING

In September 2023, we introduced our newest initiative, Sustainability Works — an engaging peer-learning platform for interactive groups, created to build sustainability awareness and practices. Sustainability Works was designed to empower employees to make a positive change for a greener future.

During the inaugural Sustainability Works 10-week sprint, nearly 900 of our employees joined the Sustainability Works community. Several employees have been featured as "Challenge Heroes" for their commitment to taking action and becoming more sustainable both at work and in their personal lives. This will be an ongoing effort, with plans for another sprint in the near future.

90%

ENGAGEMENT RATE

Almost all of our 900 users have either viewed content, commented and/or shared resources on the platform.

54%

ACTIVE USAGE RATE

Over half of users logged into the platform each week and interacted with new content.

FROM PHYSICAL TO DIGITAL: THE MOVE TOWARD DEMATERIALIZATION

As a user-owned organization, DTCC leverages its unique market position to anticipate the market's future needs and respond with solutions that lower costs, improve efficiency and bring stability and certainty to the industry. Over the years, the industry has made significant progress toward eliminating paper certificates, a process known as dematerialization.

The Underwriting business receives approximately 100,000 eligibility-related documents per year. These documents, which include Electronic Certificates of Deposits (E-CDs), Prospectuses, Term Sheets, Letters of Representation, and Legal Riders, among others, come in a variety of formats and are not centrally stored, making it difficult to manage their life cycle.

Because our legacy systems stored these documents in disparate systems, with varying formats, the processing of these documents was cumbersome and lacked sufficient scalability to meet our modernization requirements.

To synchronize the management of these documents, a new tool was developed, the Content Services Platform (CSP). This solution consolidates all eligibility documentation in one location, replacing 8 mailboxes, 7 SharePoint Folders and 1 System ID. CSP will serve as the foundational building block for storage of dematerialized eligibility documentation.

The platform was designed to serve as an enterprisewide utility, and there is currently a high level of interest in adopting this from many departments across DTCC.

Each dematerialized security leads to a reduction in carbon dioxide emissions for the life of the security. The emissions are related to the issuance of the paper itself, as well as the servicing of the physical security, including creation, authorization, ownership change and maturity.

Since the launch of the dematerialization program, almost 90% of all newly issued retail Certificate of Deposits (CDs) are now leveraging the CSP. Industry adoption of e-CDs has resulted in the successful dematerialization of an average of 20,000 physical certificates per year, a considerable milestone.

This translates into reduction in emissions by:

- Avoiding 25,000–30,000 courier trips per year, including air and ground motorized transportation
- Eliminating the printing of 50,000—60,000 pages per year (as certificates typically have multiple pages)
- Eliminating the management, storage and destruction of paper processes

Prosperity

WE'RE DEDICATED TO SERVING ALL THE COMMUNITIES WHERE WE LIVE AND WORK.

For over 50 years, DTCC has been advancing industry-leading solutions that help secure and shape the future growth and development of the global financial marketplace. But beyond that, as an employer, we have the responsibility to contribute to the United Nations Sustainable Development Goals to promote economic growth and advancement.

We take pride in creating economic value for employees, shareholders and society through job creation and strong financial performance — all while investing in innovation and improving local communities.

GIVING BACK TO OUR COMMUNITIES

We continue to make a positive impact in the communities where we live and work through our employee and community engagement programs, philanthropy and volunteerism. We apply the same rigor and excellence in delivering on our Corporate Social Responsibility promises as we do in protecting the global financial system.

This year, in honor of DTCC's 50th anniversary, we ramped up our fundraising and volunteering efforts. We set a goal of 50% employee participation in volunteering and giving, along with the goal of planting 50,000 trees. We are proud to report that we achieved both goals.

GIVING METRICS

$2,622,860

2023 TOTAL PHILANTHROPIC GIVING

21,600

2023 VOLUNTEER HOURS

$1,132,629

2023 EMPLOYEE DONATIONS & COMPANY MATCHING GIFTS

$1,490,231

2023 TOTAL CORPORATE CONTRIBUTIONS

OUR EMPLOYEES MAKING AN IMPACT THROUGH GIVING

[Learn More About CSR At DTCC]

STEM PROGRAMS

During 2023 we expanded our CSR program with a focus on science, technology, engineering and mathematics (STEM) persistence, college access, readiness, completion, employment opportunities and financial literacy, interacting with over 150 high school students through Girls Who Code, New York University Computer Science for Cyber Security and PENCIL programs. Our FutureStars (formerly Rising Stars) program continued for these high school students, with 83 new students joining. The goal is to build a pipeline that will feed into DTCC's Early Careers programs while also playing an active role in our communities.

We also hosted the Girls Who Code Summer Immersion Program with 120 students, as well as participated in a pilot industry immersion day in partnership with Bank of America, where we participated in mentoring and hosted a coding-based Escape Room experience for 100 students. In addition, we supported the PENCIL School Partnership program and participated in the SIFMA Foundation's InvestWrite.

"I'm excited to have accepted an EDGE analyst position at DTCC for the class of 2024. My DTCC journey started when I worked with Girls Who Code in 2019. During that time, I had the opportunity to learn about DTCC and meet women in IT, which inspired me to pursue internship opportunities at DTCC. I feel immensely grateful for this opportunity and look forward to contributing my skills and expertise to DTCC's success in the coming years."

TUMININU (ABIGAEL) OGUNNAIKE
EDGE Analyst (Class of 2024)

PROMOTING A CULTURE OF VOLUNTEERING IN DTCC CHENNAI

Chennai has hosted volunteer events since 2015. In order to encourage wider participation and promote a "Culture of Volunteering," the Chennai site set a target of least 50% of employees volunteering at least once a year. A model to enable this goal was proposed, where each department "adopts a month" and coordinates with a recognized NGO partner to organize a virtual or in-person volunteering session. This model was received very well and helped us achieve success.

"The Chennai site has registered the highest employee engagement scores amongst all DTCC's major locations. A key driver of this is our constant engagement with staff through varied networking and learning opportunities. The numerous CSR events that we have organized have created a strong bond between employees and created a culture of volunteering. Through our volunteer events, we firmly establish our core DTCC values of 'Responsible Citizenship.'"

PRAVEEN MANIVANNAN
DTCC Executive Director, Software Engineering

DTCC WREXHAM SUPPORTS LOCAL HOSPICE

DTCC has a longstanding relationship with Nightingale House Hospice (NHH), which provides Nightingale House Hospice provides specialist palliative care services for those with life-limiting illnesses. NHH's services are completely free of charge to patients and their families across Wrexham, Flintshire and East Denbighshire to Barmouth and border towns including Oswestry and Whitchurch.

In total, DTCC has donated nearly £80,000 to NHH, of which £25,000 has gone toward the modernization of the hospice. As times have changed, so have the needs of the patients; the final ward modernization added more individual spaces with partition walls that can be raised to make a family room. The layout is easier for the staff to use and work in. Additionally, as part of DTCC's 50th Anniversary celebrations, £10,000 was given to the hospice for the ward stage of the modernization.

"My experience has taught me that life is finite, we don't know when or why we might lose someone. Although I had no direct link with NHH, I have always thought that everyone should pass with dignity and in as little pain as possible. NHH makes every moment count, it offers comfort to the person and the family, and has helped countless people and continues to do so, quietly and constantly."

DANIEL GROOMBRIDGE
DTCC Corporate Actions Associate Director

LEFT TO RIGHT ARE LAURA EMBERTON (NHH), TONY PORTANNESE (DTCC), CHRISTINE LOVELADY (DTCC), DAN GROOMBRIDGE (DTCC), SARAH POVEY (NHH) AND CHRISTINE DUKES (NHH)

ECONOMIC CONTRIBUTION

DTCC created significant economic value by generating healthy returns for employees and shareholders. Full details are available in our Financial Statements and Notes.

Part of how DTCC contributes to the communities in which we operate is through paying taxes. In 2023, the organization paid $194.3 million in taxes, including corporate income taxes, property taxes, non-creditable VAT and other sales taxes and employer-paid payroll taxes. These taxes support government operations and help fund various public benefits. Refer to the Income Taxes footnote in the financial statements for further details.

FINANCIAL INVESTMENT

We invested $177.7 million in capital investments for premises, equipment and intangible assets for the year ended December 31, 2023. Our primary investments are technology focused and involve the purchase of computer equipment and the development of software. These investments improve our core processes, increase the pace of technological innovation and align our services with our clients' needs.

For that purpose, we regularly update and upgrade our technology systems to meet industry, regulatory and compliance standards. Additionally, these investments create highly skilled jobs for our employees and vendors.

Operationally, our systems are fully backed up at alternate locations for business contingency purposes and are frequently tested to ensure that full capabilities are maintained in the event of an emergency. We also maintain significant excess capacity to manage market volatility and related volume spikes that may require us to process substantially more transactions, which is particularly important during periods of market stress or dislocation. In addition, we play an active role on various securities industry technology committees, which include subcommittees and working groups on major technology issues, such as information security and industrywide testing for business recovery.

SHARE BUYBACKS AND DIVIDEND PAYMENTS

During 2023, the organization paid dividends totaling $16.9 million to our series D preferred stock shareholders. During 2022, $16.9 million to our series D preferred stock shareholders.

The Depository Trust & Clearing Corporation

Consolidated Financial Statements as of and for the Years Ended December 31, 2023 and 2022, and Independent Auditor's Report

THE DEPOSITORY TRUST & CLEARING CORPORATION

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INDEPENDENT AUDITOR'S REPORT

To the Board of Directors and Shareholders of
The Depository Trust and Clearing Corporation

Opinion

We have audited the consolidated financial statements of The Depository Trust and Clearing Corporation and its subsidiaries (the "Company"), which comprise the consolidated statements of financial condition as of December 31, 2023 and 2022, and the related consolidated statements of income, comprehensive income, changes in shareholders' equity, and cash flows for the years then ended, and the related notes to the consolidated financial statements (collectively referred to as the "financial statements").

In our opinion, the accompanying financial statements present fairly, in all material respects, the financial position of the Company as of December 31, 2023 and 2022, and the results of its operations and its cash flows for the years then ended in accordance with accounting principles generally accepted in the United States of America.

Basis for Opinion

We conducted our audits in accordance with auditing standards generally accepted in the United States of America (GAAS). Our responsibilities under those standards are further described in the Auditor's Responsibilities for the Audit of the Financial Statements section of our report. We are required to be independent of the Company and to meet our other ethical responsibilities, in accordance with the relevant ethical requirements relating to our audits. We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our audit opinion.

Responsibilities of Management for the Financial Statements

Management is responsible for the preparation and fair presentation of the financial statements in accordance with accounting principles generally accepted in the United States of America, and for the design, implementation, and maintenance of internal control relevant to the preparation and fair presentation of financial statements that are free from material misstatement, whether due to fraud or error.

In preparing the financial statements, management is required to evaluate whether there are conditions or events, considered in the aggregate, that raise substantial doubt about the Company's ability to continue as a going concern for one year after the date that the financial statements are available to be issued.

Auditor's Responsibilities for the Audit of the Financial Statements

Our objectives are to obtain reasonable assurance about whether the financial statements as a whole are free from material misstatement, whether due to fraud or error, and to issue an auditor's report that includes our opinion. Reasonable assurance is a high level of assurance but is not absolute assurance and therefore is not a guarantee that an audit conducted in accordance with GAAS will always detect a material misstatement when it exists. The risk of not detecting a material misstatement resulting from fraud is higher than for one resulting from error, as fraud may involve collusion, forgery, intentional omissions, misrepresentations, or the override of internal control. Misstatements are considered material if there is a substantial likelihood that, individually or in the aggregate, they would influence the judgment made by a reasonable user based on the financial statements.

In performing an audit in accordance with GAAS, we:

- Exercise professional judgment and maintain professional skepticism throughout the audit.
- Identify and assess the risks of material misstatement of the financial statements, whether due to fraud or error, and design and perform audit procedures responsive to those risks. Such procedures include examining, on a test basis, evidence regarding the amounts and disclosures in the financial statements.
- Obtain an understanding of internal control relevant to the audit in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the Company's internal control. Accordingly, no such opinion is expressed.
- Evaluate the appropriateness of accounting policies used and the reasonableness of significant accounting estimates made by management, as well as evaluate the overall presentation of the financial statements.
- Conclude whether, in our judgment, there are conditions or events, considered in the aggregate, that raise substantial doubt about the Company's ability to continue as a going concern for a reasonable period of time.

We are required to communicate with those charged with governance regarding, among other matters, the planned scope and timing of the audit, significant audit findings, and certain internal control-related matters that we identified during the audit.

Deloitte & Touche LLP

March 25, 2024

THE DEPOSITORY TRUST & CLEARING CORPORATION

CONSOLIDATED STATEMENTS OF FINANCIAL CONDITION

(In thousands, except share data)	As of December 31, 2023	As of December 31, 2022
ASSETS		
CURRENT ASSETS:		
Cash and cash equivalents	$ 15,774,381	$ 16,167,430
Participants' segregated cash	57	2,020
Short-term investments	250,000	750,000
Accounts receivable - net of allowance for credit losses	197,836	191,244
Participants' and Clearing Funds	83,216,701	61,735,088
Other Participants' assets	4,510,304	931,071
Other current assets	244,196	197,928
Total current assets	104,193,475	79,974,781
NON-CURRENT ASSETS:		
Premises and equipment - net of accumulated depreciation	245,288	195,203
Goodwill	68,746	57,699
Intangible assets - net of accumulated amortization	280,119	290,423
Operating lease right-of-use-asset	156,027	188,552
Other non-current assets	635,400	347,689
Total non-current assets	1,385,580	1,079,566
TOTAL ASSETS	$ 105,579,055	$ 81,054,347
LIABILITIES AND SHAREHOLDERS' EQUITY		
CURRENT LIABILITIES:		
Commercial paper - net of unamortized discount	$ 9,076,862	$ 9,109,638
Long-term debt, current portion	398,813	1,997,307
Pension and postretirement benefits	27,736	21,456
Operating lease liability	25,148	30,512
Accounts payable and accrued expenses	309,560	216,013
Participants' and Clearing Funds	83,216,701	61,735,088
Payable to Participants	4,510,361	933,091
Other current liabilities	292,375	292,765
Total current liabilities	97,857,556	74,335,870
NON-CURRENT LIABILITIES:		
Long-term debt	3,332,961	2,736,286
Pension and postretirement benefits	94,085	111,331
Operating lease liability	181,388	209,910
Other non-current liabilities	252,488	242,999
Total non-current liabilities	3,860,922	3,300,526
Total liabilities	101,718,478	77,636,396
COMMITMENTS AND CONTINGENCIES (Note 2)		
SHAREHOLDERS' EQUITY		
Preferred stock:		
Series A, $0.50 par value - 10,000 shares authorized, issued (above par), and outstanding	300	300
Series B, $0.50 par value - 10,000 shares authorized, issued (above par), and outstanding	300	300
Series D, $0.50 par value - 2,000 shares authorized, issued (above par), and outstanding	490,900	490,900
Common stock, $100 par value - 80,000 shares authorized, 50,908 shares issued and outstanding	5,091	5,091
Additional paid-in capital	411,065	411,065
Retained earnings	2,982,973	2,546,925
Accumulated other comprehensive loss, net of tax	(180,052)	(186,630)
Non-controlling interests	150,000	150,000
Total shareholders' equity	3,860,577	3,417,951
TOTAL LIABILITIES AND SHAREHOLDERS' EQUITY	$ 105,579,055	$ 81,054,347

The Notes to Consolidated Financial Statements are an integral part of these statements.

THE DEPOSITORY TRUST & CLEARING CORPORATION
CONSOLIDATED STATEMENTS OF INCOME

(In thousands)	For the years ended December 31, 2023	2022
REVENUES		
Settlement and asset services	$ 557,807	$ 518,514
Clearing services	880,746	857,632
Matching services	289,762	298,850
Repository and derivatives services	325,660	329,617
Wealth management services	124,319	121,706
Data and other services	52,897	55,994
Investment income (loss), net	14,711	(19,044)
Total revenues	2,245,902	2,163,269
EXPENSES		
Employee compensation and related benefits	939,096	842,230
Information technology	261,759	246,539
Professional and other services	422,842	425,738
Occupancy	64,963	69,382
Depreciation and amortization	164,935	174,539
General and administrative	54,050	54,811
Impairment of intangible assets	14,296	17,467
Total expenses	1,921,941	1,830,706
Total operating income	323,961	332,563
NON-OPERATING INCOME (EXPENSE)		
Interest income	2,581,308	823,056
Refunds to Participants	(1,713,054)	(540,178)
Interest expense	(661,223)	(239,711)
Other non-operating income, net	71,383	79,938
Total non-operating income	278,414	123,105
Income before taxes	602,375	455,668
Provision for income taxes	149,452	123,080
Net income	$ 452,923	$ 332,588

The Notes to Consolidated Financial Statements are an integral part of these statements.

THE DEPOSITORY TRUST & CLEARING CORPORATION
CONSOLIDATED STATEMENTS OF COMPREHENSIVE INCOME

(In thousands)	For the years ended December 31, 2023	2022
Net income	$ 452,923	$ 332,588
OTHER COMPREHENSIVE INCOME (LOSS) - Net of tax:		
Defined benefit pension and other plans [1]	4,056	30,541
Foreign currency translation	2,522	(8,638)
Other comprehensive income	6,578	21,903
Comprehensive income	$ 459,501	$ 354,491

(1) Amounts are net of provision for income taxes of $1,770 and $11,660 for 2023 and 2022, respectively

The Notes to Consolidated Financial Statements are an integral part of these statements.

THE DEPOSITORY TRUST & CLEARING CORPORATION
CONSOLIDATED STATEMENTS OF CHANGES IN SHAREHOLDERS' EQUITY

	Preferred Stock						Accumulated Other Comprehensive Income (Loss), Net of Tax			
(In thousands)	**Series A**	**Series B**	**Series D**	**Common Stock**	**Additional Paid-In Capital**	**Retained Earnings**	**Defined Benefit Pension and Other Plans**	**Foreign Currency Translation**	**Non-controlling Interests**	**Total Shareholders' Equity**
BALANCE - January 1, 2022	$ 300	$ 300	$ 490,900	$ 5,091	$ 411,065	$ 2,231,213	$ (201,239)	$ (7,294)	$ 150,000	$ 3,080,336
Net income	—	—	—	—	—	332,588	—	—	—	332,588
Other comprehensive income (loss)	—	—	—	—	—	—	30,541	(8,638)	—	21,903
Dividends on preferred stock	—	—	—	—	—	(16,876)	—	—	—	(16,876)
BALANCE - December 31, 2022	300	300	490,900	5,091	411,065	2,546,925	(170,698)	(15,932)	150,000	3,417,951
Net income	—	—	—	—	—	452,923	—	—	—	452,923
Other comprehensive income	—	—	—	—	—	—	4,056	2,522	—	6,578
Dividends on preferred stock	—	—	—	—	—	(16,875)	—	—	—	(16,875)
BALANCE - December 31, 2023	$ 300	$ 300	$ 490,900	$ 5,091	$ 411,065	$ 2,982,973	$ (166,642)	$ (13,410)	$ 150,000	$ 3,860,577

The Notes to Consolidated Financial Statements are an integral part of these statements.

THE DEPOSITORY TRUST & CLEARING CORPORATION

CONSOLIDATED STATEMENTS OF CASH FLOWS

(In thousands)	For the years ended December 31, 2023	2022
CASH FLOWS FROM OPERATING ACTIVITIES:		
Net income	$ 452,923	$ 332,588
Adjustments to reconcile net income to net cash provided by/(used in) operating activities:		
Depreciation and amortization	164,935	174,539
Impairment of intangible assets	14,296	17,467
Deferred income taxes	(48,298)	2,265
Accretion of discount on Commercial paper, net of associated interest paid	44,324	49,641
Realized/unrealized net gain from equity investments	(596)	(37,997)
Other	34,898	43,359
Net change in:		
Accounts receivable	(4,973)	47,090
Other assets	(73,154)	(9,877)
Accounts payable and accrued expenses	90,816	116,002
Pension and postretirement benefits	(6,900)	(18,351)
Operating lease liability	(29,365)	(30,300)
Other liabilities	10,979	(29,282)
Participants' and Clearing Funds liabilities	3,806,863	3,490,583
Payable to Participants	3,577,271	(399,862)
Net cash provided by operating activities	8,034,019	3,747,865
CASH FLOWS FROM INVESTING ACTIVITIES:		
Purchases of Short-term investments	(1,200,000)	(1,645,000)
Maturities of Short-term investments	1,700,000	1,340,000
Purchases of Premises and equipment	(91,316)	(58,657)
Capitalized software development costs	(86,383)	(103,986)
Net cash paid in acquisition	(48,647)	—
Proceeds from sale of equity investments	49,791	—
Purchase of equity investments	(6,084)	—
Proceeds from company owned life insurance policies	2,757	1,712
Net cash provided by/(used in) investing activities	320,118	(465,931)
CASH FLOWS FROM FINANCING ACTIVITIES:		
Proceeds from Commercial paper	51,467,160	64,675,937
Repayments of Commercial paper	(51,544,259)	(63,907,873)
Proceeds from issuance of Long-term debt, net of debt issuance costs	990,283	992,683
Repayments on Long-term debt	(2,000,000)	—
Preferred stock dividend payments	(16,875)	(16,876)
Payment to Non-controlling interests	—	(135)
Net cash (used in)/provided by financing activities	(1,103,691)	1,743,736
Effect of foreign exchange rate changes on Cash and cash equivalents	1,468	(4,340)
Net increase in Cash and cash equivalents, Participants' segregated cash, Participants' and Clearing Funds cash deposits, Cash in Other Participants' assets, Restricted cash	7,251,914	5,021,330
Cash and cash equivalents, Participants' segregated cash, Participants' and Clearing Funds cash deposits, Cash in Other Participants' assets, Restricted cash - Beginning of year	49,079,355	44,058,025
Cash and cash equivalents, Participants' segregated cash, Participants' and Clearing Funds cash deposits, Cash in Other Participants' assets, Restricted cash - End of year	$ 56,331,269	$ 49,079,355
SUPPLEMENTAL DISCLOSURES:		
Interest paid	$ 559,831	$ 148,534
Income taxes paid - net of refunds	$ 194,328	$ 112,418

The Notes to Consolidated Financial Statements are an integral part of these statements.

1. BUSINESS AND OWNERSHIP

The Depository Trust & Clearing Corporation (DTCC) is the parent company of various operating subsidiaries, including The Depository Trust Company (DTC), National Securities Clearing Corporation (NSCC), Fixed Income Clearing Corporation (FICC), DTCC ITP LLC (ITP), DTCC Deriv/SERV LLC (Deriv/SERV), DTCC Solutions LLC (Solutions (US)), DTCC Solutions (UK) Limited (Solutions (UK)), Business Entity Data, B.V. (BED); collectively, the "Company" or "Companies."

Subsidiaries

DTC is a limited purpose trust company formed under the Banking Law of New York State and supervised by the New York State Department of Financial Services (NYSDFS); a State member bank of the Federal Reserve System (FRS), subject to examination by the Federal Reserve Bank of New York (FRBNY) under delegated authority from the Board of Governors (the FRB) of the FRS; and a clearing agency registered with and under the supervision of the U.S. Securities and Exchange Commission (SEC). DTC provides central securities depository, settlement and related services to members of the securities, banking and other financial industries.

NSCC is organized as a business corporation under New York law, and is a clearing agency registered with the SEC. NSCC provides central counterparty (CCP) services, including clearing, settlement and risk management services to its members for trades involving equities, corporate and municipal debt, exchange-traded funds, and unit investment trusts.

FICC is a clearing agency registered with the SEC that provides CCP services for the U.S. government and mortgage-backed securities markets, consisting principally of automated real-time trade comparison, netting, settlement, trade confirmation, clearing, risk management and electronic pool notification. FICC has two divisions, the Government Securities Division (GSD) and the Mortgage-Backed Securities Division (MBSD).

DTC, NSCC and FICC are designated as Systemically Important Financial Market Utilities (SIFMUs) by the U.S. Financial Stability Oversight Council pursuant to Title VIII of the Dodd-Frank Wall Street Reform and Consumer Protection Act of 2010. This designation subjects the clearing agencies to enhanced standards for risk management, operation and governance, as established by the SEC's Standards for Covered Clearing Agencies (CCAS).

The members of DTCC's clearing agencies are collectively referred to as Participants.

ITP, through itself, its subsidiary and affiliates, provides post-trade matching, processing and other related services, primarily to members of the financial services community. ITP's subsidiary and applicable affiliates are authorized to provide certain post-trade matching services pursuant to certain orders issued by regulatory authorities and may be subject to the supervision and examination by these authorities in the jurisdiction in which they operate including the SEC, the Financial Conduct Authority (FCA) in the United Kingdom, and the Autorité des Marchés Financiers (AMF) and the Ontario Securities Commission (OSC) in Canada.

Deriv/SERV enhances transparency and provides operational efficiency for derivatives and securities financing transactions processing and reporting through various legal entities, including affiliated locally registered or recognized trade repositories. Deriv/SERV also offers the Trade Information Warehouse asset servicing for credit default swaps and oversees other pre and post derivative trade activities offered by other DTCC legal entities. The trade repositories are subject to supervision and examination by regulatory authorities in the jurisdictions they operate including the Commodity Futures Trading Commission (CFTC), SEC, FCA, thirteen Canadian provincial and territorial regulators, the European Securities and Markets Authority (ESMA), the Swiss Financial Market Supervisory Authority (FINMA), the Monetary Authority of Singapore (MAS), the Financial Services Agency of Japan (JFSA), and the Australian Securities and Investments Commission (ASIC).

Solutions (US) is a New York limited liability company, which provides data related solutions. Used primarily by financial firms, these solutions include referential and activity-based data, analytics and benchmarks across a variety of asset classes.

1. BUSINESS AND OWNERSHIP (CONTINUED)

Solutions (UK) offers software application, analytics solutions and consulting services. Its software and analytics solution, DTCC Report Hub®, centers on pre and post trade reporting to help firms manage the complexities of meeting multiple regulatory mandates across jurisdictions. The consulting services business offers specialized advisory services to firms primarily in the financial services industry.

BED owned and operated the GMEI® utility legal entity identifier (LEI) solution in the federated Global LEI System (GLEIS). The Global Markets Entity Identifier (GMEI) utility was designed to provide a single, universal standard identifier to any organization or firm involved in a financial transaction internationally across all asset classes. BED was accredited with the Global Legal Entity Identifier Foundation (GLEIF). BED and GLEIF agreed to terminate its relationship effective August 22, 2023. As such, BED is no longer an accredited Local Operating Unit (LOU) as of that date and has ceased LOU operations.

2. SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES

Basis of presentation. The accompanying consolidated financial statements are prepared in accordance with generally accepted accounting principles in the United States of America (U.S. GAAP). The accompanying consolidated financial statements include the accounts of the Company and its wholly-owned subsidiaries. Intercompany accounts and transactions have been eliminated in consolidation.

Use of estimates. The preparation of financial statements in conformity with U.S. GAAP requires management to make estimates and assumptions that affect the amounts reported in the consolidated financial statements. Management makes estimates regarding, among other things, the collectability of receivables, the outcome of litigation, the realization of deferred taxes, unrecognized tax benefits, impairment of intangible assets, fair value measurements, pension benefit obligation and other matters that affect the reported amounts. Estimates are based on judgment and available information; therefore, actual results could differ materially from those estimates.

Cash and cash equivalents. All highly liquid investments purchased with an original maturity of three months or less at the date of acquisition are classified as Cash and cash equivalents. Cash equivalents consist primarily of highly liquid investments in deposits held in banks.

Participants' segregated cash. Represents cash received from Participants for the exclusive benefit of the Participants' customers. Certain Participants are required by their regulators to segregate a portion of cash and securities in specifically protected accounts on behalf of their clients in a good control location.

Short-term investments. Consists of cash invested in bank deposits with original maturities greater than three months and less than one year with various yields carried at amortized cost, which approximates fair value due to their short-term maturities.

Fair value measurements. The Company may be required or permitted to measure and disclose certain financial assets and liabilities using fair value measurements. Fair value is defined as the price that would be received to sell an asset, or paid to transfer a liability, in an orderly transaction between market participants at the measurement date. The Company uses a three-level classification hierarchy of fair value measurements that establishes the quality of inputs used to measure fair value. The fair value of financial instruments is determined using various techniques that involve some level of estimation and judgment, the degree of which is dependent on the price transparency and the complexity of the instruments.

Accounts receivable. Accounts receivable are stated at cost, net of an allowance for credit losses and refunds to Participants. The Company establishes an allowance for estimated losses resulting from uncollectibility. Expected credit losses for newly recognized financial assets and changes to expected credit losses during the period are recognized in General and administrative expenses in the accompanying Consolidated Statements of Income. The Company determines the adequacy of the allowance by estimating the possibility of loss based on a variety of factors, including the length of time receivables are past due, forward looking macroeconomic projections, historical experience and the financial condition of customers and other debtors.

2. SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES (CONTINUED)

Participants' and Clearing Funds. The rules of DTC, NSCC and FICC require Participants to maintain deposits related to their respective activities based on calculated requirements. The deposits are available to collateralize Participants' obligations and certain liabilities of the Companies. Margin deposits and any additional Participant contributions are maintained within the Participants' and Clearing Funds on the accompanying Consolidated Statements of Financial Condition due to the benefits and risks of ownership incurred by the Company. Deposits and contributions may be in the form of cash and cash equivalents and securities. These deposits and contributions may be applied to satisfy obligations of the depositing Participant, other Participants, or the Company pursuant to the rules of the relevant subsidiaries of the Company.

Cash deposits. Deposits and contributions received in the form of cash may only be invested in bank deposit accounts, including FRBNY, that provide same day access to funds. All interest earned on investments is accrued and included within Interest income in the accompanying Consolidated Statements of Income. This interest is refunded to Participants and is included in Refunds to Participants in the accompanying Consolidated Statements of Income.

Securities - at fair value. Securities deposited to the Clearing Fund may include U.S. Treasury securities, U.S. agency debt securities and U.S. agency residential mortgage-backed securities, pursuant to the rules.

Securities held in custody. Securities held in custody by DTC for Participants, which are predominantly in electronic book form, but also include physical certificates, are not reported in the accompanying consolidated financial statements as the Company does not have the benefits or risks of ownership.

Other Participants' assets and Payable to Participants. The Company receives cash and stock dividends, interest, reorganization and redemption proceeds on securities registered in the name of its nominee, Cede and Co., and interest and redemption proceeds on bearer securities, which it distributes to Participants. Balances comprised of cash that represent cash dividends, interest, reorganization, redemptions, and cash collateral received are included in Other Participants' assets, with a corresponding liability recorded in Payable to Participants, on the accompanying Statements of Financial Condition. Short positions occasionally exist in securities balances and are credited to the account of the Participants; such short positions are valued and collateralized daily by 130% of the short position reflected in Other Participants' assets on the accompanying Consolidated Statements of Financial Condition. DTC's obligation to return such cash collateral to Participant is also reflected in Payable to Participants.

Federal reserve stock. DTC is a member of the FRBNY and, as a member, is required to maintain a minimum level of investment in FRB stock based on the Company's capital. The FRB stock is carried at cost, classified as a restricted security and periodically evaluated for impairment. The Company determined there was no impairment as of December 31, 2023 and 2022. The FRB stock, amounting to $6,402,000 as of December 31, 2023 and 2022, is included in Other non-current assets on the accompanying Consolidated Statements of Financial Condition.

Premises and equipment. Premises and equipment are stated at cost, net of accumulated depreciation. Routine maintenance, repairs and replacement costs are expensed as incurred, while improvements that extend the useful life of the assets are capitalized. When equipment is sold or otherwise disposed of, the cost and related accumulated depreciation are removed from the accounts and any resulting gain or loss is recognized in the accompanying Consolidated Statements of Income. Premises and equipment are reviewed for impairment whenever events or changes in circumstances indicate the related carrying amount may not be recoverable. The following table summarizes how the Company depreciates Premises and equipment:

Premises and equipment	Depreciation Period	Depreciation Method
Leasehold improvements	Shorter of useful life or remaining term of the lease	Straight-line
Furniture and equipment	3 - 7 years	Straight-line
Building and improvements	7 - 39 years	Straight-line

Depreciation expense for leasehold improvements, furniture and equipment, and buildings and improvements is included in Depreciation and amortization in the accompanying Consolidated Statements of Income.

2. SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES (CONTINUED)

Goodwill and Intangible assets

Goodwill. The Company records Goodwill upon the completion of a business combination as the difference between the purchase price and the fair value of the net assets acquired. Subsequent to initial recognition, Goodwill is not amortized but is tested for impairment annually or more frequently if events occur or circumstances change that indicate an impairment may exist. The Company has the option to first assess qualitative factors to determine whether the existence of events or circumstances leads to a determination that it is more likely than not that the fair value of a reporting unit is less than its carrying amount. If after assessing the totality of events or circumstances, the Company determines it is more likely than not that the fair value of a reporting unit is greater than its carrying amount, no further impairment testing is necessary. However, if the Company concludes otherwise, then it is required to perform the quantitative impairment test, whereby a goodwill impairment loss will be measured as the excess of a reporting unit's carrying value over its estimated fair value.

Intangible assets. The Company's intangible assets include customer relationships and capitalized software.

Capitalized software. The Company capitalizes eligible costs associated with the acquisition or development of internal-use software projects that provide new or significantly improved functionality. The Company capitalizes software costs expected to result in long-term operational benefits, such as replacement systems or new applications that result in significantly increased operational efficiencies or functionality. All other costs incurred in connection with an internal-use software project are expensed as incurred.

The following table summarizes how the Company amortizes and when it tests its finite Intangible assets for impairment:

Intangible Asset	Amortization Period	Amortization Method	Impairment Testing Frequency
Customer relationships	12 Years	Straight-line	If a triggering event occurs
Capitalized software	Finite/ 3 - 10 Years	Straight-line	If a triggering event occurs

Leases. The Company leases corporate offices, data centers and certain equipment primarily through operating leases. The Company's leases have remaining lease terms of 1 to 10 years, some of which may include options to extend the lease up to 10 additional years, and some of which may include options to terminate the lease within 1 year.

The Company determines if an arrangement is or contains a lease at contract inception and accounts for lease and non-lease components as a single lease component. Operating leases are included in Operating lease right-of-use (ROU) asset, Current portion of operating lease liability, and Non-current operating lease liability on the Company's Consolidated Statements of Financial Condition.

ROU assets represent the Company's right to use an underlying asset for the lease term and lease liabilities represent the Company's obligation to make lease payments arising from the lease. The ROU assets are initially measured at the amount equal to the lease liabilities, adjusted for balances of accrued or prepaid rent and unamortized lease incentives provided by lessors. For operating leases, expense is generally recognized on a straight-line basis over the lease term.

Operating lease liabilities are recognized based on the present value of the future lease payments over the remaining lease term. The Company uses its incremental borrowing rate, factoring in the lease term, to determine the lease liability.

When determining lease term, the Company considers renewal options that the Company is reasonably certain to exercise and termination options that the Company is reasonably certain not to exercise.

2. SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES (CONTINUED)

Equity investments. All equity investments that represent less than a 20% ownership interest are initially recognized at cost and included in Other non-current assets on the accompanying Consolidated Statements of Financial Condition. Subsequently, these investments are measured at fair value, which represents cost less impairment, if any, plus or minus changes resulting from observable price changes in orderly transactions for the identical or similar security. Changes in the fair values of these investments are recorded in Other non-operating income, net in the accompanying Consolidated Statements of Income.

On December 19, 2022, the London Stock Exchange Group, plc (LSEG) agreed to acquire 100% of the Acadisoft, Inc. (Acadia) outstanding stock. The transaction closed on March 31, 2023. DTCC owned 7% of Acadia at the time of the sale and received proceeds of $49,791,000. The Company recorded a gain of $39,041,000 on the sale, of which $38,445,000 was recognized during the year ended December 31, 2022. The gain is included in Other non-operating income, net in the accompanying Consolidated Statements of Income.

Commercial paper. NSCC issues commercial paper with maturities generally less than one year. The proceeds from the issuance of the commercial paper constitute liquid resources of NSCC that, together with other liquid resources of NSCC, are available to enable it to effect the settlement of its payment obligations in the event of the default of any of its Participants pursuant to NSCC’s rules. Pending such use by NSCC, the proceeds of the issuance of commercial paper are invested in highly liquid short-term instruments in accordance with NSCC's investment policy.

Debt issuance costs. Debt issuance costs consist of costs incurred in obtaining financing and are amortized over the term of the financing using the straight-line method. These costs are generally recorded as a direct deduction from the carrying amount of the related debt liability on the Consolidated Statements of Financial Condition.

Commitments and contingencies. The Company is involved in legal proceedings and litigation arising in the ordinary course of business. In the opinion of management, the outcome of such proceedings and litigation is not expected to have a material effect on the accompanying Consolidated Statements of Financial Condition, Income or Cash Flows.

Non-controlling interests. Non-controlling interests represent the ownership of DTC Series A preferred stock. Under a plan adopted by the Board of Directors, each Participant of DTC is required to own shares of DTC Series A preferred stock. Shareholders' equity is adjusted for the income attributable to the non-controlling interest shareholders and any distributions to those shareholders.

Revenue recognition. The Company recognizes revenue to depict the transfer of promised services and related performance obligations to customers in an amount that reflects the consideration to which the Company expects to be entitled, upon satisfaction, in exchange for those services.

The Company derives its revenue from transaction fees, subscription revenue, support services, and usage fees. Revenue from transaction fees is billed monthly and calculated based on the value and volume of executed transactions and the established fee schedules, less any applicable volume discounts. The volume targets or thresholds for the discounts primarily reset monthly. Subscription and support revenues are recognized ratably over the performance period of the relevant contract using a time elapsed measure of progress as the customer receives the benefits of the services throughout the term of the contract. Usage fees are recognized when services are provided based on contractual terms.

Details for each revenue stream presented in the Company's Consolidated Statements of Income follow:

S*ettlement and asset services.* Revenue derived from this revenue stream are in the form of transaction fees and subscription revenue. The Company provides settlement services for equity, corporate and municipal debt trades and money market instruments in the United States of America. Asset Servicing includes a broad range of services for underwriting, custody, corporate actions, dividend, proxy and reorganization services, as well as the electronic registration and transfer of securities processing.

2. SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES (CONTINUED)

Clearing services. Revenue derived from this revenue stream is in the form of transaction fees that are based on either the volume or value of trading activity. Services include the clearing and settlement of equity, corporate and municipal bond and unit investment trust transactions, and the netting and settlement of mortgage-backed securities clearing and government securities clearing.

Matching services. Revenue derived from this revenue stream may be in the form of transaction fees, subscription revenue and support services. Services include trade enrichment, trade agreement, LEIs and data analytics.

Repository and derivatives services. Revenue derived from this revenue stream may be in the form of transaction fees, subscription revenue and support services. Services support derivatives trade data submissions covering real-time price reporting, transaction details, valuation data to meet members' reporting obligations in various jurisdictions globally, as well as an asset servicing infrastructure for credit default swaps, matching service for equity derivatives payments and tools to member firms to address the quality of their derivatives trade submissions.

Wealth management services. Revenue derived from this revenue stream is in the form of transaction fees. Services include centralized, automated processing and information services for mutual fund, alternative investment, and insurance and retirement products.

Data and other services. Revenue derived from this revenue stream may be in the form of subscription revenue, support services, consulting projects and usage fees. Services include referential and activity-based announcement, security reference, and liquidity data through the DTCC Data Services product. These offerings are delivered in fixed or configurable formats, sourced from the Company's transaction, reference, position and asset servicing data. The Company provides a broad range of other services which include consulting services and bank fees charged back to Participants.

Investment income (loss), net. Revenue derived from this revenue stream is related to changes in the fair values of investment assets related to the Company's deferred compensation plan (structured as a Rabbi Trust). The investment income (loss) is recognized in the period the realized/unrealized gain or loss on investment assets held occurs. A corresponding offset to the investment income (loss) related to the deferred compensation liability is recorded in the same period and is included in the Employee compensation and related benefits in the accompanying Consolidated Statements of Income.

Accounts receivable and deferred revenue

The period in which the Company recognizes revenue may differ from the timing of payments received from customers. The Company typically bills its customers up to 30 days in arrears. The Company records a receivable when revenue is recognized prior to payment and there is an unconditional right to payment. See Note 5, Due from Participants and customers for services, net, for the Company's receivables related to revenues from contracts with customers.

Deferred revenue represents the Company's liability to perform services in the future related to payments received in advance of those services. Deferred revenue as of December 31, 2023 and 2022 was $6,541,000 and $14,532,000 respectively, and is included in Other current liabilities and Other non-current liabilities on the accompanying Consolidated Statements of Financial Condition, as disclosed in Note 12. Of the $14,532,000 as of December 31, 2022, $12,917,000 was recognized as revenue during the year ended December 31, 2023.

Investment income, net. Investment income, net represents changes in the fair values of investment assets related to the Company's deferred compensation plan (structured as a Rabbi Trust). All of the marketable securities of the Rabbi Trust are classified as trading securities and are recorded at fair value.

2. SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES (CONTINUED)

Non-qualified deferred compensation plan. DTCC maintains a self-directed, non-qualified deferred compensation plan structured as a "Rabbi Trust" for certain executives and other highly compensated employees. Under the plan participants may elect to defer receipt of a portion of their annual compensation and invest it in various mutual funds. All such investments are held in the Rabbi Trust and the plan requires settlement in cash. The investment assets of the Rabbi Trust are recorded at fair value and included on the accompanying Consolidated Statements of Financial Condition in Other non-current assets as long-term incentive plan assets. The amount of compensation deferred under the plan is credited to each participant's deferral account and a deferred compensation liability is recorded in Other non-current liabilities on the accompanying Consolidated Statements of Financial Condition. The investment assets of the Rabbi Trust are classified as trading securities, and accordingly, changes in their fair values are recorded in Investment income, net in the accompanying Consolidated Statements of Income with a corresponding charge recorded in Employee compensation and related benefits in the accompanying Consolidated Statements of Income. The change in fair value of these investments was a gain of $14,711,000 and loss of $19,044,000 for the years ended December 31, 2023 and 2022, respectively.

Long-term incentive plan. DTCC's long-term incentive plan is provided to certain designated employees of DTCC to establish retention incentives for certain employees. The performance period is a three-year period commencing January 1 of each calendar year, unless modified, extended or terminated by the Board of Directors and the Compensation and Human Resources Committee. Only those employees specifically designated by the Compensation Committee are eligible to participate in the plan. The associated liabilities for the plan are classified in Other current liabilities and Other non-current liabilities on the accompanying Consolidated Statements of Financial Condition.

Retirement plans

Defined benefit plans. DTCC has a qualified non-contributory defined benefit pension plan (the Pension Plan) in the U.S., under which employees hired or rehired before May 1, 2009 were eligible to participate upon attainment of age 21 and completion of six months of service. Effective May 1, 2009, The Pension Plan was closed to new participants. The Pension Plan was frozen effective December 31, 2013 and all plan participants no longer accrue any benefits. The Pension Plan is qualified under Section 401(a) of the Internal Revenue Code (IRC) of 1986, as amended. It is subject to the provisions of ERISA. The Pension Plan provides benefits to eligible retired or vested terminated employees or their beneficiaries. The Pension Benefit Guarantee Corporation, a United States governmental agency, guarantees most vested normal age retirement benefits subject to certain limitations. Pension benefits under the Pension Plan are determined based on an employee's length of service and earnings. DTCC's funding policy requires the Company to make contributions to the Pension Plan that meet or exceed the minimum funding standards under the Employee Retirement Income Security Act of 1974 (ERISA) and the Internal Revenue Code. DTCC also has defined benefit pension plans that are offered in certain non-U.S. locations based on factors such as eligible compensation, age and/or years of service. It is the Company's policy to fund the pension plans in amounts sufficient to meet the requirements under applicable laws.

DTCC provides health care and life insurance benefits to eligible DTCC retired employees and their beneficiaries in the Retiree Medical and Life Insurance Plans. The Retiree Medical Plan was frozen effective January 1, 2002 and is closed to new participants but is still in existence for employees hired prior to this date. In order to be eligible, management employees hired on or before January 1, 2002, upon termination, must meet the Rule of 75 (age plus year of service must equal 75) and must be over the age of 55 at termination. Bargaining unit employees hired on or before January 1, 2002, upon termination, must have at least 20 years of service and be age 55 or older. When an employee is eligible for retiree medical, they are also eligible for retiree life insurance.

DTCC also sponsors a Supplemental Executive Retirement Plan (SERP) and a Restoration Plan that are non-qualified, non-funded defined benefit plans, which provide additional retirement benefits to certain employees. Benefits paid to retirees are based on age at retirement, years of credited service and average compensation. The cost of non-qualified defined benefits is determined using substantially the same actuarial methods and economic assumptions as those used for the qualified pension plan. The Company maintains certain assets in trust for non-qualified retirement benefit obligations.

2. SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES (CONTINUED)

The annual measurement date for DTCC's defined benefit plans is December 31. Plan assets are determined based on fair value generally representing observable market prices. The projected benefit obligations are the present values determined by discounting projected benefit distributions using the corresponding spot rates as of the measurement date from yield curves of high-quality corporate bonds available in the marketplace. The net periodic pension expense or income includes service and interest costs determined using the same yield curve spot rates, an expected return on plan assets based on an actuarially derived market-related value and amortization of prior years' actuarial gains and losses and prior service cost (credit). Service costs, interest costs, and all other costs are included in Employee compensation and related benefits, Interest expense, and Other non-operating income, respectively, in the accompanying Consolidated Statements of Income.

Actuarial gains and losses include gains or losses related to changes in the amount of the projected benefit obligations or plan assets resulting from experience different from the assumed rate of return, changes in the discount rate or other assumptions. To the extent an actuarial gain or loss exceeds 10% of the greater of the projected benefit obligation or the market-related value of plan assets, the excess is recognized over the future lifetime of the defined benefit plans.

The expected long-term rate of return on plan assets is based on anticipated returns for each applicable asset class. Anticipated returns are weighted for the expected allocation for each asset class and are based on forecasts for prospective returns in the equity and fixed income markets, which should track the long-term historical returns for these markets. The Company also considers the growth outlook for the U.S. and global economies, as well as current and prospective interest rates.

Market-related value of assets is a balance used to calculate the expected return on plan assets. The market-related value of plan assets is either fair value or a calculated value that recognized changes in fair value in a systematic and rational manner over not more than five years. The difference between actual experience and expected returns on plan assets is included as an adjustment in the market-related value over a 4-year period.

Defined contribution retirement plans. The Company sponsors two defined contribution plans for U.S. employees, The Depository Trust & Clearing Corporation Employee Savings Plan (Employee Savings Plan) and The Depository Trust & Clearing Corporation Operations Level Employee Savings Plan (Operations Level Savings Plan). The plans are overseen by the Company's Employee Benefit Plans Committee, which is appointed by the Board of Directors of the Company and is composed of designated Company officers. The Employee Savings Plan is a single employer plan covering non-bargaining unit employees. The Operations Level Savings Plan is a single employer plan covering bargaining unit employees.

The Company matches 50% of the first 6% of the employee's contributions up to the IRC compensation limits. Company matching contributions and employee contributions vest immediately.

In addition to the Company matching contributions, the Company offers a supplemental contribution on behalf of the employees in lieu of the contributions to the Pension Plan, which is now frozen. Employees are able to participate in this Pension Contribution Account (PCA) after six months of service. The Company makes contributions equal to a percentage of base and incentive pay based on years of service (ranging from 3%-7% of eligible pay). Company supplemental contributions vest over five years at the rate of 20% for each year of service and vest immediately after five years or upon attaining age 55. These PCA contributions are employer-only contributions.

In addition to the Company matching and PCA contributions, the Company offers a supplemental contribution on behalf of the employees who were hired or rehired on or before May 1, 2001, also in lieu of the contributions to the Pension Plan. The Pension Transition Account (PTA) contribution ranges from 2% to 3% of eligible pay, for employees whose age plus service combination (in whole years) totaled 55 or higher, as of December 31, 2013. The Company supplemental contributions vest over five years at the rate of 20% for each year of service and vest immediately after five years or upon attaining age 55. These PCA contributions are employer-only contributions.

2. SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES (CONTINUED)

Income taxes. The Provision for income taxes is computed using the asset and liability method. The current tax payable is based on taxable income for the year. Taxable income differs from Income before taxes as reported in the accompanying Consolidated Statements of Income because it excludes items of income or expense that are taxable or deductible in other years and it further excludes items that are never taxable or deductible. The Company records a deferred income tax (benefit) provision when there are temporary differences between assets and liabilities measured for financial reporting and for income tax return purposes. These temporary differences result in taxable (deferred tax liability) or deductible (deferred tax asset) amounts in future years and are measured using the tax rates and laws that will be in effect when such differences are expected to reverse. Valuation allowances are recognized if, based on the weight of available evidence, it is more likely than not that some portion of the deferred tax asset will not be realized. Deferred tax assets and liabilities are reported net by jurisdiction in non-current assets or liabilities on the accompanying Consolidated Statements of Financial Condition. It is the Company’s policy to provide for uncertain tax positions and the related interest and penalties based upon management’s assessment of whether a tax benefit is more likely than not to be sustained upon examination by the tax authorities. These provisions, along with the interest and penalties are included in the Other non-current liabilities in the accompanying Consolidated Statements of Financial Condition.

Business Employment Incentive Program. The Company participates in the New Jersey State Business Employment Incentive Program (BEIP). The intent of this program is to encourage businesses to locate and expand in the State of New Jersey through grants that the Company has elected to convert into refundable tax credits. The Company determined the classification of the refundable tax credits to be a form of government grant. The tax credits are recognized as Other non-operating income when the Company has complied with the terms and conditions of BEIP. Total BEIP income included in Other non-operating income, net in the accompanying Consolidated Statements of Income was $23,023,000 and $12,667,000 for the years ended December 31, 2023 and 2022, respectively. The BEIP receivable included in Other current assets on the accompanying Consolidated Statements of Financial Condition was $23,023,000 and $12,667,000 as of December 31, 2023 and 2022, respectively.

Foreign currency. Assets and liabilities denominated in foreign currencies are translated at rates of exchange prevailing on the dates of the accompanying Consolidated Statements of Financial Condition. Revenues and expenses are translated at average rates of exchange during the year. Gains or losses on foreign currency transactions are included in General and administrative in the accompanying Consolidated Statements of Income. Gains or losses on translation of the financial statements of foreign subsidiaries, when the functional currency is other than the U.S. dollar, are included in the accompanying Consolidated Statements of Comprehensive Income.

Derivatives and hedging. The Company uses derivatives for hedging purposes to manage its exposure to changes in interest rates and currency exchange rates. The Company does not use derivatives for trading purposes. The Company formally documents all relationships between the hedging instruments and hedged items, as well as the Company's risk-management objectives and strategy for undertaking various hedging transactions. Hedge accounting is applied when a derivative is highly effective at reducing the risk associated with the hedged exposure and the risk management objective and strategy are documented. Hedge documentation identifies the derivative hedging instrument, the asset or liability and type of risk hedged, and how the effectiveness of the derivative is assessed prospectively and retrospectively.

Fair Value Hedges. The Company uses interest rate swaps to mitigate the interest rate risk associated with fixed-rate long-term debt obligations by converting a portion of its interest expense exposure from fixed rate to a floating rate to more closely align with interest income received on its cash equivalents. See Note 14, Long-term debt, for the Company's fixed-rate senior notes being hedged through interest rate swaps.

Net Investment Hedges. The Company uses forward contracts to mitigate the foreign exchange risk associated with net investments in certain foreign subsidiaries whose functional currencies are not the U.S. dollar. Foreign currency hedging instruments that qualify for hedge accounting, changes in the fair value of the derivatives are recorded in Other comprehensive (loss) income. If it is determined that a derivative is not highly effective at hedging the designated exposure, the Company discontinues hedge accounting and changes in fair value of the hedging instrument are recorded in earnings. The gain or loss on net investment hedges, net of taxes, recorded in OCI as part of the cumulative translation adjustment, were gains of $0.2 million and losses of $0.5 million for the years ended December 31, 2023 and 2022, respectively.

2. SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES (CONTINUED)

Reconciliation of Cash and cash equivalents and other limited use cash. When reconciling the beginning and ending total amounts shown in the Consolidated Statements of Cash Flows, the Company includes all cash on the Consolidated Statements of Financial Condition, regardless of which line it is included in. The Consolidated Statements of Cash Flows includes Cash and cash equivalents and cash balances that are not available for general corporate purposes due to certain limitations, including - Participants' segregated cash, Participants' and Clearing Funds cash deposits, Cash in Other Participants' assets and Restricted cash.

A reconciliation of Cash and cash equivalents, Participants' segregated cash, Participants' and Clearing Funds cash deposits, Cash in Other Participants' assets and Restricted cash reported within the accompanying Consolidated Statements of Financial Condition that sum to the total of the same such amounts shown on the accompanying Consolidated Statements of Cash Flows as of December 31, 2023 and 2022 follows (in thousands):

	2023	2022
Cash and cash equivalents	$ 15,774,381	$ 16,167,430
Participants' segregated cash	57	2,020
Participants' and Clearing Funds cash deposits	35,777,609	31,970,747
Cash in Other Participants' assets	4,510,304	931,071
Restricted cash included in Other non-current assets	268,918	8,087
Total Cash and cash equivalents, Participants' segregated cash, Participants' and Clearing Funds cash deposits, Cash in Other Participants' assets and Restricted cash shown on the Consolidated Statements of Cash Flows	$ 56,331,269	$ 49,079,355

Global Events and Crises. Global pandemics, sanctions, war, or natural disasters may have an adverse impact on market, economic and geopolitical conditions and trigger a period of global economic slowdown. Such a slowdown may have a material impact on the Company's financial results including changes in revenue, interest rates, liquidity/credit, and government and regulatory policy. At this time, the Company has not experienced any material adverse financial impacts from these events and crises.

3. ACCOUNTING AND REPORTING DEVELOPMENTS

Standard	Description	Impact on the financial statements or other significant matters
Financial Accounting Standards Board Standard Issued, but not yet Adopted		
ASU 2023-09 - Income Taxes (Topic 740): Improvements to Income Tax Disclosures *Issued December 2023*	• Enhances disclosures related to the rate reconciliation and income taxes paid. The amendment requires consistent categories and greater disaggregation of information in the rate reconciliation and income taxes paid disaggregated by jurisdiction. • The amendment requires disclosures of pretax income (or loss) and income tax expense (or benefit) to be consistent with the SEC Regulation S-X 210.4-08(h), Rules of General Application—General Notes to Financial Statements: Income Tax Expense, and eliminates disclosures that no longer are considered cost beneficial or relevant.	• Effective January 1, 2025. • The adoption of the standard will not have a material impact on the Company's consolidated financial statements and related disclosures.
ASU 2023-08 - Intangibles - Goodwill and Other - Crypto Assets (Subtopic 350-60): Accounting for and Disclosure of Crypto Assets *Issued December 2023*	• Requires an entity to measure crypto assets at fair value in the statement of financial position each reporting period and recognize changes from remeasurement in net income. • Requires an entity to present crypto assets measured at fair value separately from other intangible assets in the balance sheet and changes from the remeasurement of crypto assets separately from changes in the carrying amounts of other intangible assets in the income statement. Additionally, specific presentation is required for cash receipts arising from crypto assets that are received as noncash consideration in the ordinary course of business and are converted nearly immediately into cash. • Specific annual disclosures are required upon adoption	• Effective January 1, 2024. • The adoption of the standard will not have a material impact on the Company's consolidated financial statements and related disclosures.

4. PARTICIPANTS' SEGREGATED CASH, OTHER PARTICIPANTS' ASSETS AND PAYABLE TO PARTICIPANTS

Details for Participants' segregated cash, Other Participants' assets and Payable to Participants as of December 31, 2023 and 2022 follow (in thousands):

	2023	2022
Assets:		
Participants' segregated cash	$ 57	$ 2,020
Other Participants' assets - cash	4,510,304	931,071
Total	$ 4,510,361	$ 933,091
Liabilities:		
Payable to Participants	$ 4,510,361	$ 933,091

The balance of the Other Participants' assets is subject to fluctuation due to the timing of when the Company receives the cash and stock dividends, interest, reorganization and redemption proceeds, and the subsequent distribution to Participants.

5. ACCOUNTS RECEIVABLE

Details for Accounts receivable as of December 31, 2023 and 2022 follow (in thousands):

	2023	2022
Due from Participants and customers for services	$ 178,557	$ 172,330
Allowance for credit losses	(184)	(2,220)
Due from Participants and customers for services, net	178,373	170,110
Other receivables	19,463	21,134
Total	$ 197,836	$ 191,244

Details for allowance for credit losses for the years ended December 31, 2023 and 2022 follow (in thousands):

	2023	2022
Beginning balance of allowance for credit losses	$ 2,220	$ 253
(Decrease)/Increase in allowance	(1,723)	2,539
Less: Write-offs	(313)	(572)
Ending balance of allowance for credit losses	$ 184	$ 2,220

6. PARTICIPANTS' AND CLEARING FUNDS

Details for the Participants' and Clearing Funds as of December 31, 2023 and 2022 follow (in thousands):

	2023			
	DTC	NSCC	FICC	Total
Total deposits	$ 1,984,734	$ 12,386,378	$ 68,845,589	$ 83,216,701
Less: Required deposits	1,128,000	8,349,399	56,600,011	66,077,410
Excess deposits	$ 856,734	$ 4,036,979	$ 12,245,578	$ 17,139,291

	2022			
	DTC	NSCC	FICC	Total
Total deposits	$ 2,001,893	$ 12,002,310	$ 47,730,885	$ 61,735,088
Less: Required deposits	1,170,000	10,817,731	37,612,013	49,599,744
Excess deposits	$ 831,893	$ 1,184,579	$ 10,118,872	$ 12,135,344

6. PARTICIPANTS' AND CLEARING FUNDS (CONTINUED)

Cash and Securities. Details for cash and securities of the Participants' and Clearing Funds, which may be applied to satisfy obligations of the depositing Participant, other Participants, or the Company pursuant to the rules of the relevant subsidiaries of the Company, as of December 31, 2023 and 2022 follow (in thousands):

	2023			
	DTC	**NSCC**	**FICC**	**Total**
Cash and cash equivalents(1)	$ 1,984,734	$ 11,778,982	$ 22,013,893	$ 35,777,609
U.S. Treasury Securities	—	607,396	38,477,750	39,085,146
U.S. Agency Residential Mortgage-Backed Securities	—	—	7,501,633	7,501,633
U.S. Agency Issued Debt Securities	—	—	852,313	852,313
Total	$ 1,984,734	$ 12,386,378	$ 68,845,589	$ 83,216,701

	2022			
	DTC	**NSCC**	**FICC**	**Total**
Cash and cash equivalents(1)	$ 2,001,893	$ 11,201,776	$ 18,767,078	$ 31,970,747
U.S. Treasury Securities	—	800,534	25,939,504	26,740,038
U.S. Agency Residential Mortgage-Backed Securities	—	—	2,693,060	2,693,060
U.S. Agency Issued Debt Securities	—	—	331,243	331,243
Total	$ 2,001,893	$ 12,002,310	$ 47,730,885	$ 61,735,088

(1) The Company's cash and cash equivalents of the Participants' and Clearing Funds are all bank deposits as of December 31, 2023 and 2022.

7. PREMISES AND EQUIPMENT

The cost, accumulated depreciation and net book value of Premises and equipment as of December 31, 2023 and 2022 follow (in thousands):

	2023	**2022**
Furniture and equipment	$ 270,331	$ 262,709
Leasehold improvements	190,316	185,965
Buildings and improvements	22,534	22,483
Land	4,221	4,221
Total Premises and equipment	487,402	475,378
Less: Accumulated depreciation	(242,114)	(280,175)
Net book value	$ 245,288	$ 195,203

Depreciation expense for premises and equipment for the years ended December 31, 2023 and 2022 was $42,227,000 and $49,823,000, respectively, and is included in Depreciation and amortization in the accompanying Consolidated Statements of Income.

The Company disposed of fully depreciated premises and equipment that resulted in the removal of costs and accumulated depreciation of $80,697,000 and $28,074,000 for the years ended December 31, 2023 and 2022, respectively.

8. GOODWILL AND INTANGIBLE ASSETS

The gross carrying value, accumulated amortization and net book value of Goodwill and Intangible assets as of December 31, 2023 and 2022 follow (in thousands):

	2023	2022
Goodwill:		
Gross carrying value	$ 68,746	$ 57,699
Intangible assets:		
Customer relationships:		
Gross carrying value	231,700	231,700
Accumulated amortization	(197,910)	(178,602)
Net book value	33,790	53,098
Capitalized software:		
Gross carrying value	594,655	679,229
Accumulated amortization	(348,326)	(441,904)
Net book value	246,329	237,325
Total Intangible assets - net of accumulated amortization	$ 280,119	$ 290,423

Goodwill impairment testing. DTCC completed its annual goodwill impairment test in the fourth quarter of 2023 and concluded that goodwill was not impaired. DTCC performed a qualitative assessment to test the goodwill for impairment and determined it was more likely than not that the fair value of each reporting unit exceeded their carrying value and therefore goodwill was deemed not impaired.

Intangible assets. Amortization expense for intangible assets for the years ended December 31, 2023 and 2022 was $122,708,000 and $124,716,000, respectively, and is included in Depreciation and amortization in the accompanying Consolidated Statements of Income.

Details for estimated amortization expense for each of the next five years and thereafter follow (in thousands):

2024	$ 112,533
2025	85,885
2026	43,965
2027	13,736
2028	4,000
Thereafter	20,000
Total future estimated amortization	$ 280,119

During the years ended December 31, 2023 and 2022, disposals of fully amortized capitalized software resulted in the removal of cost and accumulated amortization of $181,125,000 and $37,376,000, respectively.

The Company recognized impairment charges of $14,296,000 and $17,467,000 related to capitalized software for the years ended December 31, 2023 and 2022, respectively. The impairment charges are included in Impairment of intangible assets in the accompanying Consolidated Statements of Income.

8. GOODWILL AND INTANGIBLE ASSETS (CONTINUED)

During the year ended December 31, 2023, the Company recognized the following impairments of internally developed software and purchased software related to these projects:

The Securities Financing Transactions project experienced delays in revenues and a significant reduction in revenue projections compared to the original forecast triggering an evaluation for impairment. The evaluation concluded that the $11,914,000 carrying value of its internally developed software was not recoverable and exceeded its fair value.

The Client Management Reporting System project experienced a reduction in revenue projections triggering an evaluation for impairment. The evaluation concluded that the $1,369,000 carrying value of its internally developed software was not recoverable and exceeded its fair value.

The Analytics and Reporting Management - Data Lineage project experienced a change in strategy due to gaps in technology and increased costs triggering an evaluation for impairment. The evaluation concluded that the $781,000 carrying value of its internally developed software was not recoverable and exceeded its fair value.

The closure of GMEI utility resulted in BED ceasing LOU operations triggering an evaluation for impairment. The evaluation concluded that the $232,000 carrying value of its total internally developed software was not recoverable and exceeded its fair value.

During the year ended December 31, 2022, the Company recognized the following impairments of internally developed software and purchased software related to these projects:

The GMEI project experienced cost over-runs exceeding projected revenue, the necessity for rewriting portions of the code and changes in legal and regulatory requirements triggering an evaluation for impairment. The evaluation concluded that the $6,369,000 carrying value of its internally developed software was not recoverable and exceeded its fair value.

The Client Management Reporting System project experienced a reduction in revenue projections triggering an evaluation for impairment. The evaluation concluded that the $6,225,000 carrying value of its internally developed software was not recoverable and exceeded its fair value.

The Common Matching project experienced a change in strategy that resulted in a reprioritization of efforts triggering an evaluation for impairment. The evaluation concluded that the $3,331,000 carrying value of its internally developed software was not recoverable and exceeded its fair value.

The Securities Financing Transactions Regulation project experienced a change in strategy and legal and regulatory requirements triggering an evaluation for impairment. The evaluation concluded that the $1,542,000 carrying value of its internally developed software was not recoverable and exceeded its fair value.

9. BUSINESS COMBINATIONS

On December 7, 2023, the Company acquired the equity of Securrency Inc. ("Securrency") via a merger of Securrency with a wholly-owned subsidiary of the Company in accordance with the merger agreement. Upon the completion of the merger, Securrency was the surviving entity, became a wholly-owned subsidiary of DTCC and operates under the name DTCC Digital (US) Inc. Securrency is a digital asset technology company that developed a platform that comprises of three key components: a capital markets platform, ledger scan, and digital asset composer. The acquisition will enable DTCC to establish a digital infrastructure that allows DTCC to extend its core services to the digital asset ecosystem and deliver no-touch processing.

9. BUSINESS COMBINATIONS (CONTINUED)

The Company acquired the equity of Securrency for a purchase price of approximately $50.5 million. The acquisition of Securrency was accounted for as a business combination using the acquisition method of accounting. The excess of purchase price over fair value of assets obtained and liabilities assumed was allocated to goodwill. In connection with the acquisition, the Company recorded approximately $11.0 million of goodwill and $40.0 million capitalized software. The capitalized software will be amortized to expense over 10 years. Expenses associated with the acquisition were approximately $6.5 million for the year ended December 31, 2023, which primarily consisted of legal and consulting costs and were expensed as incurred.

The assets acquired, liabilities assumed, and consideration paid in the acquisition were recorded at their estimated fair values based on management's best estimates using information available at the date of the acquisition and are subject to adjustment for up to one year after the closing date of the acquisition. While the fair values are not expected to be materially different from the estimates, accounting guidance provides that an acquirer must recognize adjustments to provisional amounts that are identified during the measurement period, which will run through December 6, 2024, in respect of the acquisition, in the measurement period in which the adjustment amounts are determined. The acquirer must record in the financial statements, the effect on earnings of changes in depreciation, amortization, or other income effects, if any, as a result of changes to the provisional amounts, calculated as if the accounting had been completed at the acquisition date.

The assets acquired and liabilities assumed as of the acquisition date follow (in thousands):

Purchase price allocation:		
Purchase price	$	50,503
Assets acquired:		
Cash and cash equivalents	$	1,856
Accounts receivable		645
Other current assets		431
Premises and equipment		211
Intangible assets		40,034
Operating lease right-of-use-asset		495
Other non-current assets		472
Total assets acquired		44,144
Liabilities assumed:		
Operating lease liability		523
Accounts payable and accrued expenses		2,497
Other current liabilities		1,394
Other non-current liabilities		274
Total liabilities assumed		4,688
Net assets acquired		39,456
Goodwill	$	11,047

10. LEASES

Details for operating lease assets and lease liabilities as of December 31, 2023 and 2022 follow (in thousands):

	2023	2022
Assets		
Operating lease right-of-use-asset	$ 156,027	$ 188,552
Liabilities		
Current portion of operating lease liability	25,148	30,512
Non-current operating lease liability	181,388	209,910
Total operating lease liabilities	$ 206,536	$ 240,422

Details for the maturity of operating lease liabilities as of December 31, 2023 for each of the next five years and thereafter follow (in thousands):

2024	$ 31,163
2025	31,912
2026	28,740
2027	25,128
2028	24,839
Thereafter	96,319
Total lease payments	238,101
Less: Imputed interest	(31,565)
Present value of lease liability	$ 206,536

Details for lease expense for the years ended December 31, 2023 and 2022 follow (in thousands):

	2023	2022
Occupancy	$ 31,655	$ 35,430
Information technology	7,510	5,642
Total lease expense	39,165	41,072
Sublease income (1)	(5,117)	(5,053)
Net lease expense	$ 34,048	$ 36,019

(1) Included in Occupancy and Other non-operating income, net in the accompanying Consolidated Statements of Income.

Details for supplemental cash flow information related to lease liabilities for the years ended December 31, 2023 and 2022 follow (in thousands):

	2023	2022
Lease payments included in the measurement of lease liabilities	$ (37,075)	$ (38,383)
Accretion of lease liabilities	7,710	7,379
Net decrease in Operating lease liability(1)	$ (29,365)	$ (31,004)

(1) Included in operating activities in the Consolidated Statements of Cash Flows

Details of the weighted average remaining lease term and weighted average discount rate used to determine the lease liability as of December 31, 2023 and 2022 follow:

	2023	2022
Weighted average remaining lease term (years)	8.1	8.9
Weighted average discount rate	3.59 %	3.02 %

Lease right-of-use assets obtained in exchange for operating lease obligations were $3,520,000 and $781,000 for the years ended December 31, 2023 and 2022, respectively.

11. OTHER ASSETS

Details for Other assets as of December 31, 2023 and 2022 follow (in thousands):

	2023	2022
Prepaid expenses	$ 151,157	$ 136,503
Interest receivable	39,472	25,838
Prepaid taxes	29,457	20,154
Business employment incentive program	23,023	12,667
Interest rate swaps(1)	—	1,035
Other current assets	1,087	1,731
Total other current assets	244,196	197,928
Restricted cash	268,918	8,087
Long-term incentive plan assets	126,298	121,171
Cash surrender value on insurance policies	65,722	65,105
Prepaids	61,112	51,103
Deferred tax assets	56,910	14,369
Pension and postretirement	40,531	28,867
Equity investments	7,278	50,389
Investment in Federal reserve stock	6,402	6,402
Other non-current assets	2,229	2,196
Total other non-current assets	635,400	347,689
Total	$ 879,596	$ 545,617

(1) The interest rate swaps may change from an asset to liability position.

12. OTHER LIABILITIES

Details for Other liabilities as of December 31, 2023 and 2022 follow (in thousands):

	2023	2022
Compensation payable	$ 179,441	$ 176,086
Accrued payroll and payroll withholdings	47,436	46,081
Long-term incentive plan liabilities	32,500	30,814
Payroll taxes payable	21,158	20,214
Deferred revenue	5,944	13,768
Deferred sublease income	4,066	5,687
Other current liabilities	1,830	115
Total other current liabilities	292,375	292,765
Long-term incentive plan liabilities	210,210	207,757
Unrecognized tax benefits	38,566	25,954
Asset retirement obligations(1)	2,676	2,597
Deferred revenue	597	764
Interest rate swaps(2)	311	—
Deferred tax liabilities	128	5,927
Total other non-current liabilities	252,488	242,999
Total	$ 544,863	$ 535,764

(1) The Company is legally required under certain lease agreements to restore its leased sites to the original condition at the end of the agreement. The amount of asset retirement obligations are accreted to the estimated undiscounted obligations that will be paid to restore the leased sites to the original condition and such accretion is recognized as expense.

(2) The interest rate swaps may change from an asset to liability position.

13. COMMERCIAL PAPER

Details for Commercial paper as of December 31, 2023 and 2022 follow (in thousands):

	2023	2022
Commercial paper - net of unamortized discount of $92,370 and $27,750 as of December 31, 2023 and 2022, respectively	$ 9,076,862	$ 9,109,638
Weighted-average interest rate	5.46 %	4.11 %

Interest expense on Commercial paper, included in Interest expense in the accompanying Consolidated Statements of Income, was $481,691,000 and $158,761,000 for the years ended December 31, 2023 and 2022, respectively.

14. LONG-TERM DEBT

Details for Long-term debt as of December 31, 2023 and 2022 follow (in thousands):

	2023	2022
Senior notes - net of unamortized discount and debt issuance costs	$ 3,731,774	$ 4,733,593
Less: Current portion of long-term debt	(398,813)	(1,997,307)
Non-current portion of long-term debt	$ 3,332,961	$ 2,736,286

Details for principal payments due on Long-term debt for each of the next five years and thereafter follow (in thousands):

2024	$ 400,000
2025	2,150,000
2026	—
2027	600,000
2028	600,000
Thereafter	—
Total	$ 3,750,000

Senior notes. The proceeds from the issuances constitute liquid resources that, together with other liquid resources of the Company, are available to enable NSCC to affect the settlement of its payment obligations in the event of the default of any of its Participants pursuant to NSCC's rules.

Details of the senior notes as of December 31, 2023 follow (in thousands):

Issue Date	Maturity	Payable	Rate	Principal Balance	Carrying Value
April 23, 2020	April 23, 2025	Semi-annually	1.50%	$ 1,000,000	$ 997,792
December 7, 2020	December 7, 2025	Semi-annually	0.75%	750,000	747,231
November 21, 2022	November 21, 2024	Semi-annually	5.05%	400,000	398,813
November 21, 2022	November 21, 2027	Semi-annually	5.10%	600,000	597,560
May 30, 2023	May 30, 2025	Semi-annually	5.15%	400,000	398,185
May 30, 2023	May 30, 2028	Semi-annually	5.00%	600,000	592,193
				$ 3,750,000	$ 3,731,774

14. LONG-TERM DEBT (CONTINUED)

Interest expense and amortization of discount and issuance costs, included in Interest expense in the accompanying Consolidated Statements of Income, were $118,201,000 and $49,933,000 for the years ended December 31, 2023 and 2022, respectively. The weighted-average interest rate was 3.25% and 1.84% as of December 31, 2023 and 2022, respectively. The aggregate unamortized debt issuance costs and discount associated with the senior notes were $17,915,000 and $17,850,000, as of December 31, 2023 and 2022, respectively.

Fair value hedge. The Company uses interest rate swaps to hedge the fair value of related fixed-rate senior notes. The Company designated the interest rate swaps as a fair value hedge of the related long-term debt and applied the short-cut method for hedge accounting purposes. The fair value of interest rate swaps are included in other assets or other liabilities in the accompanying Consolidated Statements of Financial Condition.

Details of the outstanding fair value hedges as of December 31, 2023 and 2022 follow (in thousands):

Date Entered	Notional of Swap	Debt Amount Hedged	Fixed Rate Receivable	Floating Rate Payable	Fair Value in Other Assets / (Other Liabilities)	
					2023	2022
November 21, 2022	$ 600,000	$ 600,000	5.10 %	USD-Federal Funds-OIS Compound plus 1.365%	$ 1,184	$ 1,443
May 30, 2023	$ 600,000	$ 600,000	5.00 %	USD-Federal Fund-OIS Compound plus 1.4621%	(1,495)	—
					$ (311)	$ 1,443

Interest rate swaps may expose the Company to credit-related losses in the event of nonperformance by its counterparty. Credit risk is monitored on an ongoing basis. See Note 21, Off Balance Sheet and Concentrations of Credit Risks, for the Company's concentration of credit risk related to interest rate swaps.

14. LONG-TERM DEBT (CONTINUED)

Lines of credit. DTCC maintains a committed line of credit for general funding purpose, while its subsidiaries DTC and NSCC maintain committed lines of credit, pursuant to its respective rules, to support settlement of its payment obligations in the event any of its Participants default.

Details for the terms of the outstanding lines of credit as of December 31, 2023 and 2022 follow:

	2023	2022
DTCC		
Committed Amount	$500 million	$500 million
Denomination	USD	USD
Number of Participants/Lenders	13/13	13/13
Borrowing Rate	Base Rate plus 0.125%, or Adjusted Term Secure Overnight Financing Rate (SOFR) or Adjusted Daily SOFR plus 1.125%	Base Rate plus 0.125%, or Adjusted Term Secure Overnight Financing Rate (SOFR) or Adjusted Daily SOFR plus 1.125%
Maturity Date	January 2025	January 2025
Annual Facility Fee	0.15%(1)	0.15%(1)
DTC		
Committed Amount	$1.9 billion	$1.9 billion
Denomination	USD	USD
Number of Participants/Lenders	29/35	30/36
Borrowing Rate	The greatest of the FRBNY rate, Adjusted Daily SOFR, or zero on the day of borrowing, plus 1.40%	The greatest of the FRBNY rate, Adjusted Daily SOFR, or zero on the day of borrowing, plus 1.40%
Maturity Date	April 2024	May 2023
Annual Facility Fee	0.10%(1)	0.10%(1)
NSCC		
Committed Amount	$9.5 billion	$10.0 billion
Denomination	USD	USD
Number of Participants/Lenders	29/35	30/36
Borrowing Rate	The greatest of the FRBNY rate, Adjusted Daily SOFR, or zero on the day of borrowing plus 1.40%	The greatest of the FRBNY rate, Adjusted Daily SOFR, or zero on the day of borrowing plus 1.40%
Maturity Date	April 2024	May 2023
Annual Facility Fee	0.10%(1)	0.10%(1)

(1) The annual facility fee associated with maintaining the line of credit is included in Professional and other services in the accompanying Consolidated Statements of Income.

There were no borrowings under the lines of credit during 2023 and 2022.

14. LONG-TERM DEBT (CONTINUED)

Details for debt covenants related to the lines of credit as of December 31, 2023 and 2022 follow:

	2023	2022
DTCC		
Minimum Net Worth	$1.65 billion	$1.65 billion
Maximum Priority Debt	$200 million	$200 million
DTC		
Minimum Net Worth	$200 million	$200 million
Minimum Participants Fund deposits	$750 million	$750 million
NSCC		
Minimum Net Worth	$200 million	$200 million
Minimum Clearing Fund deposits	$1.5 billion	$1.5 billion

As of December 31, 2023 and 2022, the Company was in compliance with its debt covenants.

Credit Ratings. DTCC, DTC, FICC and NSCC are rated by Moody's Investors Service, Inc. (Moody's) and S&P Global Inc. (S&P). Details for issuer credit ratings and ratings outlooks for DTCC and its three clearing agency subsidiaries as of December 31, 2023 follow:

	Moody's (1)			S&P		
	Long-term	**Short-term**	**Outlook**	**Long-term**	**Short-term**	**Outlook**
DTCC	Aa3	N/A	Negative	AA-	A-1+	Stable
DTC	Aaa	P-1	Negative	AA+	A-1+	Stable
FICC	Aaa	P-1	Negative	AA	A-1+	Stable
NSCC	Aaa	P-1	Negative	AA+	A-1+	Stable

(1) Moody's categorizes the long-term issuer ratings of DTC, FICC and NSCC as clearing counterparty ratings (CCR) under the agency's Clearing Houses Rating Methodology.

15. FAIR VALUE MEASUREMENTS

Valuation hierarchy

U.S. GAAP provides for a three-level valuation hierarchy based on the transparency of inputs to the valuation of a financial asset or liability as of the measurement date. Details for the description of the three levels follow:

- Level 1 — Inputs to the valuation methodology are unadjusted quoted market prices for identical assets or liabilities in active markets as of the valuation date.
- Level 2 — Inputs to the valuation methodology are quoted market prices for similar assets and liabilities in active markets; quoted market prices for identical or similar assets or liabilities in markets that are not active; inputs other than quoted prices that are observable for the asset or liability; and inputs that are derived principally from or corroborated by observable market data by correlation or other means.
- Level 3 — Inputs to the valuation methodology are unobservable and reflect the Company's own assumptions about the estimates market participants would use pricing the asset or liability based on the best information available in the circumstances (e.g., internally derived assumptions surrounding timing and amount of expected cash flows).

A financial asset or liability's categorization within the valuation hierarchy is based on the lowest level of input that is significant to the fair value measurement.

Financial Assets and Liabilities measured at fair value on a recurring basis. For financial assets and liabilities measured at fair value on a recurring basis, the Company applies the following valuation techniques to measure fair value:

Product/ Instrument	Valuation Methodology	Classification in the valuation hierarchy
Assets - Participants' and Clearing Funds - Securities on deposit		
U.S. Treasury Securities U. S. Agency Issued Debt Securities	Quoted market price of identical assets obtained from pricing services engaged by the Company.	Level 1
U. S. Agency Issued Debt Securities U.S. Agency Residential Mortgage-Backed Securities	Quoted market price of recent trades of similar securities obtained from pricing services engaged by the Company.	Level 2
Assets - Participants' and Clearing Funds - Cash deposits		
Money market fund investments	Quoted market price of identical assets obtained from pricing services engaged by the Company.	Level 1

15. FAIR VALUE MEASUREMENTS (CONTINUED)

Product/ Instrument	Valuation Methodology	Classification in the valuation hierarchy
Assets - Other assets		
Interest rate swaps	The fair value derived from discounted future cash flows using contractual terms like notional amount, coupon rates and observable market inputs and estimates.	Level 2
Assets - Other non-current assets		
Long-term incentive plan assets - Mutual fund and Stable value fund investments	Quoted market price of identical assets obtained from pricing services engaged by the Company.	Level 1
	Quoted market price of recent trades of similar securities obtained from pricing services engaged by the Company.	Level 2
Liabilities - Participants' and Clearing Funds - Securities liabilities		
Participants' and Clearing Funds liabilities	Derived from the corresponding Participants' and Clearing Funds assets (see above).	Level 1 and Level 2
Liabilities - Other liabilities		
Interest rate swaps	The fair value derived from discounted future cash flows using contractual terms like notional amount, coupon rates and observable market inputs and estimates.	Level 2

15. FAIR VALUE MEASUREMENTS (CONTINUED)

Fair value measurements of those items measured on a recurring basis as of December 31, 2023 and 2022 follow (in thousands):

	2023			
	Level 1	Level 2	Level 3	Total
Assets:				
Clearing Funds				
U.S. Treasury Securities	$ 39,085,146	$ —	$ —	$ 39,085,146
U.S. Agency Issued Debt Securities	615,495	236,818	—	852,313
U.S. Agency Residential Mortgage-Backed Securities	—	7,501,633	—	7,501,633
Other non-current assets				
Long-term incentive plan assets - Mutual fund and Stable value fund investments	111,928	14,370	—	126,298
Total assets	$ 39,812,569	$ 7,752,821	$ —	$ 47,565,390
Liabilities:				
Clearing Funds				
Securities liabilities	$ 39,700,641	$ 7,738,451	$ —	$ 47,439,092
Other non-current liabilities				
Interest rate swaps	—	311	—	311
Total liabilities	$ 39,700,641	$ 7,738,762	$ —	$ 47,439,403

	2022			
	Level 1	Level 2	Level 3	Total
Assets:				
Clearing Funds				
U.S. Treasury Securities	$ 26,740,038	$ —	$ —	$ 26,740,038
U.S. Agency Issued Debt Securities	217,206	114,038	—	331,244
U.S. Agency Residential Mortgage-Backed Securities	—	2,693,059	—	2,693,059
Other current assets				
Interest rate swaps	—	1,443	—	1,443
Other non-current assets				
Long-term incentive plan assets - Mutual fund and Stable value fund investments	102,528	18,643	—	121,171
Total assets	$ 27,059,772	$ 2,827,183	$ —	$ 29,886,955
Liabilities:				
Clearing Funds				
Securities liabilities	$ 26,957,244	$ 2,807,097	$ —	$ 29,764,341
Total liabilities	$ 26,957,244	$ 2,807,097	$ —	$ 29,764,341

15. FAIR VALUE MEASUREMENTS (CONTINUED)

Financial Assets and Liabilities measured at other than fair value

Financial assets and liabilities whose carrying value approximates fair value. The carrying values of certain financial assets and liabilities approximate their fair values because they are short-term in duration, have no defined maturity or have market-based interest rates. These instruments include Cash and cash equivalents, Participants' segregated cash, Short-term investments, and Participants' and Clearing Funds - Cash deposits - Bank deposits (and corresponding liabilities), Other Participants' assets, Commercial paper, Payable to Participants, and Long-term debt.

The carrying values, fair values and fair value hierarchy levels of all financial instruments measured at other than fair value on the accompanying Consolidated Statements of Financial Condition as of December 31, 2023 follow (in thousands):

	2023				
	Carrying Amount	Total Fair Value	Level 1	Level 2	Level 3
Assets:					
Cash and cash equivalents	$15,774,381	$15,774,381	$15,774,381	$ —	$ —
Participants' segregated cash	57	57	57	—	—
Short-term investments	250,000	250,000	—	250,000	—
Participants' and Clearing Funds:					
Cash deposits - Bank deposits	35,777,609	35,777,609	35,777,609	—	—
Other Participants' assets	4,510,304	4,510,304	4,510,304	—	—
Total	$56,312,351	$56,312,351	$56,062,351	$ 250,000	$ —
Liabilities:					
Commercial paper	$ 9,076,862	$ 9,076,862	$ —	$ 9,076,862	$ —
Participants' and Clearing Funds:					
Cash deposits - Bank deposits	35,777,609	35,777,609	35,777,609	—	—
Payable to Participants	4,510,361	4,510,361	4,510,361	—	—
Long-term debt	3,731,774	3,682,992	—	3,682,992	—
Total	$53,096,606	$53,047,824	$40,287,970	$12,759,854	$ —

15. FAIR VALUE MEASUREMENTS (CONTINUED)

The carrying values, fair values and fair value hierarchy levels of all financial instruments measured at other than fair value on the accompanying Consolidated Statements of Financial Condition as of December 31, 2022 follow (in thousands):

	2022				
	Carrying Amount	**Total Fair Value**	**Level 1**	**Level 2**	**Level 3**
Assets:					
Cash and cash equivalents	$16,167,430	$16,167,430	$16,167,430	$ —	$ —
Participants' segregated cash	2,020	2,020	2,020	—	—
Short-term investments	750,000	750,000	—	750,000	—
Participants' and Clearing Funds:					
Cash deposits - Bank deposits	31,970,747	31,970,747	31,970,747	—	—
Other Participants' assets	931,071	931,071	931,071	—	—
Total	$49,821,268	$49,821,268	$49,071,268	$ 750,000	$ —
Liabilities:					
Commercial paper	$ 9,109,638	$ 9,109,638	$ —	$ 9,109,638	$ —
Participants' and Clearing Funds:					
Cash deposits - Bank deposits	31,970,747	31,970,747	31,970,747	—	—
Payable to Participants	933,091	933,091	933,091	—	—
Long-term debt	4,733,593	4,570,058	—	4,570,058	—
Total	$46,747,069	$46,583,534	$32,903,838	$13,679,696	$ —

Assets measured at fair value on a non-recurring basis. Certain financial assets are subject to measurement at fair value on a non-recurring basis. For these assets, measurement at fair value in periods subsequent to their initial recognition is applicable if they are determined to be impaired or when an observable event occurs.

Financial assets measured at fair value on a non-recurring basis include equity investments, which are classified as Level 3 instruments. On October 31, 2023, the Company made a cash investment related to an equity investment, Fnality International Limited, of $6,084,000. The carrying amount of the investments were $7,278,000 and $50,389,000 as of December 31, 2023 and December 31, 2022, respectively. See Note 2 Summary of Significant Accounting Policies - Equity Investment for the sale of Acadia.

16. RETIREMENT PLANS

U.S. defined benefit pension and other postretirement benefit plans.

Benefit obligations. The reconciliation of the beginning and ending balances of the projected benefit obligations for defined benefit plans follow (in thousands):

	Pension Benefits		Other Benefits	
	2023	2022	2023	2022
Benefit obligations, beginning of year:	$ 813,364	$ 1,130,979	$ 46,230	$ 62,473
Service cost	1,147	1,532	272	445
Interest cost	41,897	26,376	2,268	1,361
Gross benefits paid	(66,601)	(77,010)	(1,394)	(1,463)
Expenses paid	(1,365)	(1,445)	—	—
Actuarial loss (gain)	17,706	(267,068)	(6,174)	(16,586)
Total benefit obligations at end of year	$ 806,148	$ 813,364	$ 41,202	$ 46,230
Total accumulated benefit obligations at end of year	$ 804,617	$ 811,279	N/A	N/A

The Accumulated Benefit Obligations are defined as the actuarial present value of Pension benefits attributed to employee services rendered before December 31, 2023 and 2022, and based on employee service and compensation prior to the measurement date.

Funded status. The funded status of the plans, as of December 31, 2023 and 2022, follow (in thousands):

	Pension Benefits				Other Benefits	
	Pension Plan		Other Supplemental Pension Plans		Medical & Life Plans	
	2023	2022	2023	2022	2023	2022
Benefit obligations at end of year:						
Qualified plan	$ 727,906	$ 728,634	$ —	$ —	$ —	$ —
Other plans	—	—	78,242	84,730	41,202	46,230
Total benefit obligations at end of year	727,906	728,634	78,242	84,730	41,202	46,230
Total fair value of plan assets at end of year	766,720	756,941	—	—	—	—
Funded (unfunded) status	$ 38,814	$ 28,307	$ (78,242)	$ (84,730)	$ (41,202)	$ (46,230)
Amounts recognized in the Consolidated Statements of Financial Condition consist of:						
Non-current assets	$ 38,814	$ 28,307	$ —	$ —	$ —	$ —
Current liability	—	—	(24,127)	(17,498)	(3,609)	(3,918)
Non-current liability	—	—	(54,115)	(67,232)	(37,593)	(42,312)
Amount recognized, end of year	$ 38,814	$ 28,307	$ (78,242)	$ (84,730)	$ (41,202)	$ (46,230)

16. RETIREMENT PLANS (CONTINUED)

Plan assets. The summary and reconciliation of the beginning and ending balances of the fair value of the plans' assets follow (in thousands):

	Pension Benefits		Other Benefits	
	2023	2022	2023	2022
Fair value of plan assets, beginning of year	$ 756,941	$ 1,027,140	$ —	$ —
Actual return on plan assets	64,453	(213,928)	—	—
Employer contribution	13,292	22,185	1,394	1,439
Gross benefits paid	(66,601)	(77,010)	(1,394)	(1,439)
Expenses paid	(1,365)	(1,446)	—	—
Fair value of plan assets, end of year	$ 766,720	$ 756,941	$ —	$ —

Details of the classification of plan assets in accordance with the three-tier fair valuation hierarchy and current asset allocations as of December 31, 2023 and 2022, follow (in thousands, except percentages):

	Target Allocation 2023	Percentage of Plan Assets, December 31, 2023	Total	Quoted Prices in Active Markets for Identical Assets (Level 1)(1)	Quoted Prices in Active Markets for Similar Assets (Level 2)(1)
Pension assets as of December 31, 2023:					
Short-term investment fund	0.50 %	0.85 %	$ 6,533	$ —	$ 6,533
Equity Portfolio:					
Domestic large cap growth			14,182	—	14,182
Domestic large cap value			14,246	—	14,246
Domestic large cap core			28,398	—	28,398
Domestic small core			5,969	3,002	2,967
International core			8,868	8,868	—
International emerging markets			2,936	2,936	—
Total equity securities	9.50 %	9.73 %	74,599	14,806	59,793
Fixed income portfolio:					
Domestic liability driven investment (2)	88.00 %	88.44 %	678,112	—	678,112
Guaranteed insurance contracts:					
Group annuity contract (3)	2.00 %	0.98 %	7,476	—	—
Total pension assets as of December 31, 2023			$ 766,720	$ 14,806	$ 744,438

16. RETIREMENT PLANS (CONTINUED)

	Target Allocation 2022	Percentage of Plan Assets, December 31, 2022	Total	Quoted Prices in Active Markets for Identical Assets (Level 1)[1]	Quoted Prices in Active Markets for Similar Assets (Level 2)[1]
Pension assets as of December 31, 2022:					
Short-term investment fund	0.50 %	0.53 %	$ 4,021	$ —	$ 4,021
Equity Portfolio:					
Domestic large cap growth			14,178	—	14,178
Domestic large cap value			14,553	—	14,553
Domestic large cap core			29,081	—	29,081
Domestic small core			5,512	2,740	2,772
International core			8,692	8,692	—
International emerging markets			2,882	2,882	—
Total equity securities	9.50 %	9.90 %	74,898	14,314	60,584
Fixed income portfolio:					
Domestic liability driven investment [2]	88.00 %	88.57 %	670,423	—	670,423
Guaranteed insurance contracts:					
Group annuity contract [3]	2.00 %	1.00 %	7,599	—	—
Total pension assets as of December 31, 2022			$ 756,941	$ 14,314	$ 735,028

(1) Investments are classified based on the lowest level of input that is significant to the fair value measurement.

(2) *Pension Plan concentration of investments.* During 2022, Wells Fargo Institutional Retirement and Trust (Wells Fargo) was the trustee of all investments in the Pension Plan exclusive of the group annuity contract, which was managed by MetLife. Wells Fargo sold the trust and custody business to Principal Financial Group, who became the trustee of the Pension Plan effective February 22, 2022. As of December 31, 2023, the balance included Principal/Multi-Manager Liability Driven Solution Collective Investment Trust I of $363 million and Principal/Multi-Manager Liability Driven Solution Collective Investment Trust II of $308 million, representing 47% and 40% of total investments, respectively. As of December 31, 2022, the balance included Principal/Multi-Manager Liability Driven Solution Collective Investment Trust I of $365 million and Principal/Multi-Manager Liability Driven Solution Collective Investment Trust II of $299 million, representing 48% and 39% of total investments, respectively.

(3) This group annuity contract is accounted for at contract value, which approximates fair value. This investment is reported at contract value because it is the amount received by Plan participants if they were to initiate permitted transactions under the terms of the pension plan. Contract value as reported represents contributions made under the contract, plus earnings, less participant withdrawals and administrative expenses.

16. RETIREMENT PLANS (CONTINUED)

Net periodic benefit expense (income). Net periodic benefit expense (income) are included in Employee compensation and related benefits, Interest expense, and Other non-operating income, net, in the accompanying Consolidated Statements of Income. Details of the components of net periodic benefit expense (income) for the years ended December 31, 2023 and 2022, follow (in thousands):

	Pension Benefits		Other Benefits	
	2023	2022	2023	2022
Components of net periodic benefit expense (income):				
Expected return on plan assets	$ (46,417)	$ (38,124)	$ —	$ —
Interest cost	41,897	26,376	2,268	1,360
Service cost	1,147	1,532	272	444
Amortizations:				
Prior service cost (credit)	87	88	—	(1,040)
Actuarial loss (gain)	95	9,217	(1,474)	135
Settlement loss	1,101	1,628	—	—
Net periodic benefit expense (income)	$ (2,090)	$ 717	$ 1,066	$ 899

Changes in OCI. Details of the changes in plan assets and benefit obligations recognized in OCI for the years ended December 31, 2023 and 2022, follow (in thousands):

	Pension Benefits		Other Benefits	
	2023	2022	2023	2022
Other changes recognized in OCI:				
Net loss (gain) arising during the period	$ (329)	$ (15,015)	$ (6,174)	$ (16,585)
Amortizations:				
Prior service credit (cost)	(87)	(87)	—	1,040
Actuarial and settlement gain (loss)	(1,196)	(10,846)	1,474	(135)
Net other changes in OCI, pre-tax	$ (1,612)	$ (25,948)	$ (4,700)	$ (15,680)

Details of the net amount recognized in Accumulated other comprehensive loss on the accompanying Consolidated Statements of Financial Condition as of December 31, 2023 and 2022, follow (in thousands):

	Pension Benefits		Other Benefits	
	2023	2022	2023	2022
Amount not reflected in net periodic benefit (cost) and included in Accumulated other comprehensive income (loss):				
Prior service credit (cost)	$ (1,478)	$ (1,565)	$ —	$ —
Accumulated income (loss)	(222,326)	(223,851)	12,627	7,926
Accumulated other comprehensive income (loss), pre-tax	$ (223,804)	$ (225,416)	$ 12,627	$ 7,926

16. RETIREMENT PLANS (CONTINUED)

Assumptions for net periodic benefit expense (income). Details for the defined benefit plans assumptions used by actuaries to determine net periodic benefit expense (income) as of December 31, 2023 and 2022 follow:

	Pension Benefits		Other Benefits	
	2023	2022	2023	2022
Weighted-average assumptions used to determine net periodic benefit expense (income) for the years ended December 31:				
Discount rate	5.42%	2.86%	5.41%	2.77%
Expected long-term rate of return on plan assets	5.3%	4.05%	n/a	n/a
Assumed health care cost trend rates as of December 31:				
Health care cost trend rate assumed for next year			6.6%	5.81%
Rate to which the cost trend rate is assumed to decline				
(the ultimate trend rate)			4.00%	4.00%
Year that the rate reaches the ultimate trend rate			2047	2045

The discount rate reflects the rate at which defined benefit plan obligations could be effectively settled. The Company projects the benefits to be paid by each plan for each year in the future, the sum of which is the projected benefit obligations. The benefits are then discounted using the Above Mean Mercer Yield Curve spot rates for the corresponding maturity years.

The total of the present values for the benefit payment years is used to calculate the single rate that discounts the benefit cash flows to the same total present value. The single rate is the basis for the final effective discount rate.

Details for the defined benefit plans assumptions used by actuaries to determine benefit obligations as of December 31, 2023 and 2022 follow:

	Pension Benefits		Other Benefits	
	2023	2022	2023	2022
Weighted-average assumptions used to determine benefit obligations as of December 31:				
Discount rate	5.15%	5.42%	5.13%	5.41%
Rate for interest cost	5.42%	2.49%	5.34%	2.29%
Rate for service cost	n/a	n/a	5.42%	2.93%
Rate for interest on service cost	n/a	n/a	5.42%	2.80%
Assumed health care cost trend rates as of December 31:				
Health care cost trend rate assumed for next year			6.26%	6.60%
Rate to which the cost trend rate is assumed to decline				
(the ultimate trend rate)			4.00%	4.00%
Year that the rate reaches the ultimate trend rate			2047	2047

16. RETIREMENT PLANS (CONTINUED)

Assumptions for defined benefit obligations. Mortality is a key assumption used to determine the benefit obligations for the Company's defined benefit plans. The mortality assumption for all plans uses the Pri-2012 mortality tables projected generationally with scale MMP-2021. The mortality tables use a white collar adjustment for the SERP, Restoration Plan and non-union Retiree Medical and Life Insurance Plans and a blue collar adjustment for the union Retiree Medical and Life Insurance Plans. The Pension Plan continues to use no collar adjustment. On a lump sum basis, mortality is based on the Internal Revenue Service (IRS) prescribed tables projected using scale MP-2021, with segmented interest rate adjustments.

Expected cash flows. The Company did not make any contributions to the Pension Plan during 2023 and 2022. Settlement losses relate to early retirement of executives who elected lump-sum and periodic payments. Settlement losses totaled $1,101,000 and $1,628,000 for the years ended December 31, 2023 and 2022, respectively. There were no participant contributions to the plans in 2023 and 2022.

Details for the benefit payments for the pension plans and other plans for 2023 and 2022 follow (in thousands):

	2023	2022
Pension plans	$ 66,601	$ 77,010
Other plans	1,394	1,439
Total	$ 67,995	$ 78,449

Details for estimated amounts to be paid in each of the next five years and the five year period thereafter follow (in thousands):

	Pension	Employer Benefits Payments	Medicare Subsidy Receipts
2024	$ 78,800	$ 3,609	$ 7
2025	58,526	3,634	6
2026	58,884	3,581	5
2027	60,420	3,493	4
2028	58,569	3,461	4
Thereafter	294,391	15,494	11
Total	$ 609,590	$ 33,272	$ 37

Defined contribution retirement plans. Total expense for the defined contribution retirement plans included in Employee compensation and related benefits in the accompanying Consolidated Statements of Income was $49,768,000 and $49,933,000 for the years ended December 31, 2023 and 2022, respectively.

17. INCOME TAXES

DTCC and its subsidiaries file a consolidated Federal income tax return and various state tax returns. DTCC and its subsidiaries also file other state and non-U.S. jurisdiction income tax returns on a separate company basis.

Details for the components of the Company's Provision for income taxes for the years ended December 31, 2023 and 2022 follow (in thousands):

	2023	2022
Current income tax/(benefit):		
Federal	$ 135,091	$ 61,228
State and local	44,260	50,521
Foreign	20,175	20,716
Total current income tax/(benefit)	199,526	132,465
Deferred income tax/(benefit):		
Federal	(35,127)	(4,608)
State and local	(22,747)	2,253
Foreign	7,800	(7,030)
Total deferred income tax/(benefit)	(50,074)	(9,385)
Provision for income taxes	$ 149,452	$ 123,080

The 2023 and 2022 effective tax rates differ from the 21% Federal statutory tax rate mainly due to state and local taxes, changes in unrecognized tax benefits, U.S. taxes on foreign operations, rate differential from foreign operations, and valuation allowance. Details for the reconciliation of the U.S. Federal statutory tax rate to the Company's effective tax rate on Income before taxes for the years ended December 31, 2023 and 2022 follow:

	2023	2022
U.S. statutory tax rate	21.0 %	21.0 %
State and local income taxes, net of Federal income tax benefit	3.1	7.2
Change in unrecognized tax benefits	1.5	0.4
Research activities	(0.2)	0.2
Benefit on foreign operations	(0.9)	(1.3)
Income from foreign operations	(0.3)	(1.2)
Valuation allowance	(0.2)	0.9
Other	0.8	(0.2)
Effective tax rate	24.8 %	27.0 %

17. INCOME TAXES (CONTINUED)

Details for the components of deferred tax assets and liabilities as of December 31, 2023 and 2022 follow (in thousands):

	2023	2022
Deferred tax assets:		
Accrued compensation and benefits	$ 75,228	$ 87,914
Operating lease liabilities and deferred rent	46,805	57,092
Capitalized Software	9,068	—
Other	39,396	44,772
Total deferred tax assets	170,497	189,778
Deferred tax liabilities:		
Capitalized software	—	(40,636)
Lease right-of-use asset	(33,140)	(42,054)
Investment tax basis difference	(39,000)	(54,685)
Depreciation	(36,866)	(39,758)
Total deferred tax liabilities	(109,006)	(177,133)
Net deferred tax assets before valuation allowance	61,491	12,645
Valuation allowance	(4,709)	(4,203)
Net deferred tax assets	$ 56,782	$ 8,442

A valuation allowance has been recorded against deferred tax assets of $4,709,000 and $4,203,000 as of December 31, 2023 and 2022, respectively, due to uncertainties related to the ability to utilize these assets. In assessing whether its deferred tax assets are realizable, the Company considers whether it is more likely than not that some portion or all of the deferred tax assets will not be realized and adjusts the valuation allowance accordingly. The Company considers all available positive and negative evidence including future reversals of existing taxable temporary differences, taxable income in prior carryback years, projected future taxable income, tax planning strategies and recent financial operations. For the remaining deferred tax assets, they are expected to be fully realized and, accordingly, no valuation allowance was established.

Details for unrecognized tax benefits, included in Other non-current liabilities, as of December 31, 2023 and 2022 follow (in thousands):

	2023	2022
Beginning balance	$ 23,645	$ 19,954
Increases:		
Prior period tax positions	3,500	4,635
Current period tax positions	14,955	6,162
Decreases:		
Prior period tax positions	(4,788)	(5,879)
Statute of limitations	(2,066)	(1,227)
Unrecognized tax benefit	35,246	23,645
Accrued interest	3,320	2,309
Ending balance	$ 38,566	$ 25,954

In addition, the Company classifies interest and penalties related to unrecognized tax benefits, if incurred, in Provision for income taxes in its accompanying Consolidated Statements of Income. The Company recognized accrued interest of $1,011,000 and $441,000 for the years ended December 31, 2023 and 2022, respectively.

17. INCOME TAXES (CONTINUED)

Unrecognized tax benefits are estimated based on judgment, assessment of relevant risks, facts and circumstances. Actual results could differ materially from those estimates. The Company believes that the liability for unrecognized tax benefits is the best estimate in relation to the potential for additional assessments. Unexpected results from one or more such tax audits could significantly adversely affect the Company's income tax provision and results of operations.

Details for the periods currently under examination and remaining subject to examination by jurisdiction as of December 31, 2023 follow:

	Tax Years	
Jurisdiction	**Under Examination**	**Subject to Examination**
U.S. Federal - Internal Revenue Service	-	2020 - 2022
New York State	-	2020 - 2022
New York City	2015 - 2017	2020 - 2022
State of Florida	-	2020 - 2022
State of California	2017 - 2018	2020 - 2022
State of New Jersey	2019 - 2021	2022

18. SHAREHOLDERS' EQUITY

DTCC Series A Preferred stock. All 10,000 shares of DTCC Series A Preferred stock are issued and outstanding and held of record by Stock Clearing Corporation, a wholly owned subsidiary of the New York Stock Exchange LLC, the successor-in-interest to the New York Stock Exchange Inc. In the event of DTCC's voluntary or involuntary liquidation, dissolution or winding-up, the holders of Series A Non-Cumulative Perpetual Preferred stock are entitled to a liquidation preference of $30.00 per share.

DTCC Series B Preferred stock. All 10,000 shares of DTCC Series B Preferred stock are issued and outstanding and held of record by National Clearing Corporation, a wholly owned subsidiary of the Financial Industry Regulatory Authority Inc. ("FINRA"). In the event of DTCC's voluntary or involuntary liquidation, dissolution or winding-up, the holders of Series B Preferred stock are entitled to a liquidation preference of $30.00 per share.

DTCC Series D Fixed Rate Reset Non-Cumulative Perpetual Preferred stock. DTCC issued 2,000 shares of Fixed Rate Reset Non-Cumulative Perpetual Preferred stock, Series D, $0.50 par value per share, with a liquidation preference of $250,000 per share. When declared by DTCC's Board of Directors, dividends on the Series D Preferred stock are payable in arrears on June 20 and December 20 of each year, beginning December 20, 2021 through June 20, 2026, at a fixed rate of 3.375% per annum. From June 20, 2026 onward, dividends will accrue at a rate equal to the five-year U.S. Treasury rate plus 2.606% per annum.

Details of dividends paid to holders of the Series D Preferred Stock during the year ended December 31, 2023 follow:

Approved and Declared Date	Record Date	Payment Date	Declared Dividend	Shares Outstanding	Dividend Paid
November 1, 2023	November 30, 2023	December 20, 2023	$ 4,218.75	2,000	$ 8,437,500
April 17, 2023	May 31, 2023	June 20, 2023	$ 4,218.75	2,000	$ 8,437,500

18. SHAREHOLDERS' EQUITY (CONTINUED)

Details of dividends paid to holders of the Series D Preferred Stock during the year ended December 31, 2022 follow:

Approved and Declared Date	Record Date	Payment Date	Declared Dividend	Shares Outstanding	Dividend Paid
November 10, 2022	November 10, 2022	December 20, 2022	$ 4,218.75	2,000	$ 8,437,500
May 9, 2022	May 10, 2022	June 21, 2022	$ 4,218.75	2,000	$ 8,437,500

DTC Series A Non-Cumulative Perpetual Preferred stock. Under a plan adopted by the Board of Directors, each Participant of DTC is required to own shares of DTC Series A preferred stock. The ownership of DTC preferred stock is reported as non-controlling interests in the consolidated financial statements. There was $150,000,000 of DTC Series A preferred stock (1,500,000 shares at par value of $100 per share) outstanding as of December 31, 2023 and December 31, 2022. Dividends are subject to regulatory limitations and restrictions per the New York Banking Law and Federal Reserve Act and must be approved and declared by the Board of Directors. When declared, dividend amounts are based on the weighted-average rate of interest paid by the Company on required Participants' Fund deposits during the dividend period as disclosed in the DTC's rules.

There were no dividends declared to holders of the DTC Series A Preferred Stock during the year ended December 31, 2023.

Details of dividends paid to holders of the DTC Series A Preferred Stock during the year ended December 31, 2023 follow:

Approved and Declared Date	Record Date	Payment Date	Declared Dividend	Dividend Paid
February 23, 2022	February 23, 2022	April 11, 2022	$ 45,000	$ 45,000
December 15, 2021	December 17, 2021	January 11, 2022	$ 90,000	$ 90,000

19. CAPITAL REQUIREMENTS

As required by Rule 17Ad-22(e)(15) of the CCAS and pursuant to the Clearing Agency Policy on Capital Requirements, the Company must meet its total capital requirement by holding liquid net assets funded by equity. The total capital requirement for each of the clearing agencies is equal to the sum of the general business risk capital requirement and corporate contribution, as described below.

General Business Risk Capital Requirement. This capital requirement is held to cover potential general business losses so that the clearing agencies can continue operations and provide services as a going concern if those losses materialize. It is determined based on the general business risk profile and estimated time to execute a recovery or orderly wind-down of critical operations for each of the clearing agencies and, at a minimum, is equal to six months of operating expenses.

Corporate Contribution. The corporate contribution is applied to losses as provided in each of the respective clearing agencies rules. The amount of the corporate contribution is generally equal to 50% of each clearing agency's general business risk capital requirement.

19. CAPITAL REQUIREMENTS (CONTINUED)

Details of the general business risk capital requirement, corporate contribution and liquid net assets funded by equity for the clearing agencies as of December 31, 2023 and 2022 follow (in thousands):

	2023		
	DTC	**NSCC**	**FICC**
General business risk capital requirement	$ 234,639	$ 270,191	$ 163,369
Corporate contribution	117,320	135,096	81,684
Total requirement	351,959	405,287	245,053
Liquid net assets funded by equity	731,373	637,350	393,085
Excess	$ 379,414	$ 232,063	$ 148,032

	2022		
	DTC	**NSCC**	**FICC**
General business risk capital requirement	$ 229,966	$ 224,590	$ 150,500
Corporate contribution	114,983	112,295	75,250
Total requirement	344,949	336,885	225,750
Liquid net assets funded by equity	648,185	645,416	336,147
Excess	$ 303,236	$ 308,531	$ 110,397

Regulatory capital. DTCC's regulated subsidiaries maintain and report regulatory capital in accordance with all relevant laws, rules and guidelines. As a multinational enterprise, various DTCC subsidiaries are subject to regulatory capital regimes, as applicable. Certain DTCC subsidiaries submit regulatory capital reports to various regulators, including, but not limited to, FRBNY, the NYSDFS and the CFTC in the United States; ESMA in Europe; FCA in the UK; OSC in Canada; and the MAS in Singapore.

Capital adequacy. DTC is subject to capital guidelines issued by United States federal and state banking regulators.

DTC capital and leverage ratios required by the FRBNY and the NYSDFS as of December 31, 2023 follow:

	Ratio	**Minimum Capital Ratio**[a]	**Well Capitalized Ratio**[a]
Tier 1 capital ratio [1]	49.94 %	6.00 %	8.00 %
Total capital ratio [1]	49.94 %	8.00 %	10.00 %
Tier 1 leverage ratio [2]	15.07 %	4.00 %	4.00 %

(a) As defined by the regulations issued by the Federal Reserve, Office of the Comptroller of the Currency and the Federal Deposit Insurance Corporation.

(1) Total capital and Tier 1 capital include common stock, retained earnings and preferred stock. DTC's tier 1 capital and total capital ratios are based on tier 1 capital and total risk-weighted assets.

(2) Tier 1 leverage ratio is based on tier 1 capital and quarterly average total assets.

20. GUARANTEES

Certain DTCC subsidiaries (NSCC and FICC) provide central counterparty (CCP) services, including clearing, settlement and risk management services. Acting as a CCP, NSCC and FICC (through GSD and MBSD) guarantee the settlement of trades in the event one or more of their Participants default. A Participant default is defined in the respective rules of NSCC, GSD and MBSD. In their guarantor role, each clearing subsidiary has equal claims to and from Participants, as applicable, on opposite sides of the netted transactions. To cover their default risk, NSCC and FICC (through GSD and MBSD) use risk-based margining to collect cash and eligible securities collateral to their Clearing Funds.

NSCC is the leading provider of clearance, netting, risk management and settlement for virtually all U.S. broker-to-broker trades involving equities, corporate and municipal debt, exchange traded funds and unit investment trusts. Through its Continuous Net Settlement (CNS) system, NSCC is interposed between Participants in securities clearance and settlement. CNS transactions are generally guaranteed at the point of trade comparison and validation for bilateral submissions or the point of trade validation for locked-in submissions. Since NSCC stands between the Participants delivering and receiving CNS trades, the failure of Participants to deliver securities to NSCC on settlement date, and the corresponding failure of NSCC to redeliver the securities, results in open positions. Open CNS positions are marked-to-market daily. Such marks are debited from or credited to the involved Participants through the settlement process. In addition, a Participant may be subject to an additional collection of margin on an intraday basis through the Clearing Fund.

FICC, through GSD, provides real-time trade matching, clearing, netting, risk management and settlement for trades in U.S. government securities, including buy-sell transactions and repurchase agreement ("Repo") transactions. Securities cleared by GSD include U.S. Treasury bills, bonds, notes, STRIPS (zero-coupon securities), floating-rate notes, inflation-indexed securities, and fixed and zero-coupon government agency securities as well as certain eligible agency mortgage-backed securities in its GCF Repo service and Sponsored GC service. The U.S. government securities market is predominantly an over-the-counter market and most buy-sell transactions are settled on trade date plus one day (T+1). Most DVP Repo transactions settle same day, or T+0, via FICC's Same Day Settling service. With the exception of Sponsored GC Trades, eligible trades are guaranteed and novated upon comparison. Regarding Sponsored GC Trades, only the End Leg of such transactions can be novated, and the End Leg of such transactions are novated once all requirements set forth in GSD Rules have been met. The guarantee of GSD net settlement positions may result in a potential liability to FICC. Guaranteed positions that have not yet settled are margined and collateralized twice-daily through the Clearing Fund and marked-to-market twice-daily through the funds-only settlement process. In addition, a Participant may be subject to an additional amount referred to as the intraday supplemental fund deposit, which, if applicable, may be collected on an intraday basis through the Clearing Fund.

MBSD provides real-time trade matching, clearing, netting, risk management and settlement for trades in the U.S. mortgage-backed securities market. Specifically, MBSD processes to-be-announced transactions, specified pool trades and stipulated trades. FICC's guarantee of MBSD transactions may result in potential liability to FICC. Guaranteed positions that have not yet settled are margined and collateralized daily through the Clearing Fund. The daily Clearing Fund includes a mark-to-market component that is calculated using guaranteed positions and prices as of prior end-of-day. In addition, a Participant may become subject to an intraday mark-to-market charge which, if applicable, may be collected on an intraday basis through the Clearing Fund.

If a Participant defaults in either NSCC or FICC, such Participant's deposits to the applicable Clearing Fund is the first source of funds and collateral that the NSCC and FICC would use to cover any losses that may result from the close-out and liquidation of the defaulting Participant's positions. To address potential tail losses, NSCC and FICC each separately maintain additional prefunded resources. These consist of (i) the CCP's Clearing Fund that, in the aggregate, currently serves as the CCP's default fund, and (ii) the CCP's corporate contribution, (see Note 19). If, after closing out and liquidating a defaulting Participant's positions, the CCP were to suffer a loss, such loss would be satisfied as follows: (i) first, applying the defaulter's Clearing Fund deposit, including any amounts available under cross-guaranty agreements to which the CCPs are a party, described below; (ii) next, the CCPs may apply their corporate contribution (or such higher amount as approved by their Board of Directors), and (iii) by allocating any remaining loss to Participants.

20. GUARANTEES (CONTINUED)

For purposes of loss allocation, in connection with defaulting member, Participant defaults are grouped together chronologically into discrete event periods of 10 business days. If there is remaining loss or liability from one or more Participant default events that occurred within the same event period, they will be treated as follows:

NSCC will assess its non-defaulting Participants as provided for in its rules. The process, in general, allocates any remaining losses or liabilities among the Participants of NSCC who were Participants on the first day of the event period ratably in accordance with their respective average daily required deposits to the Clearing Fund over the prior 70 business days.

FICC Participants are grouped into two different tiers for purposes of loss allocation: Tier 1 and Tier 2. GSD and MBSD will divide such obligation between Tier 1 Participants and Tier 2 Participants. Tier 1 Participants will be assessed ratably in accordance with their respective average daily required deposits to the Clearing Fund over the prior 70 business days. Tier 2 Participants will only be subject to such loss or liability to the extent they traded with the defaulting Participant. Sponsored Members are not obligated for loss allocation. If the loss arises in connection with Sponsored Member trades (that is, in connection with the default of a Sponsoring Member), the loss shall be allocated to Tier 1 Participants. If the loss arises in connection with a default other than of the Sponsoring Member, the Sponsoring Member shall be responsible for any loss allocated to the Sponsoring Member Omnibus Account. GSD Participants who act as inter-dealer brokers are limited to a loss allocation of $5 million per event period in respect of their inter-dealer broker activity.

Amounts that may be available under cross-guaranty agreements include, for NSCC, amounts available under the netting contract and limited cross-guaranty between DTC and NSCC relating to collateralization across the DTC-NSCC interface, or for FICC, amounts available under the cross-margining agreements between GSD and the Chicago Mercantile Exchange Inc., which may provide for additional funds if the defaulting member was a cross-margining Participant.

DTC, NSCC, FICC and The Options Clearing Corporation (OCC) have also entered into a multilateral netting contract and limited cross-guaranty agreement. In accordance with this multilateral netting agreement, the clearing agencies have agreed to make payments to each other for any remaining unsatisfied obligations of a common defaulting Participant to the extent that these clearing agencies have excess resources belonging to the defaulting Participant. Under this agreement, no party ever needs to pay out of pocket and no party can receive more than its loss.

Details for open CCP positions for which a trade guaranty applied as of December 31, 2023 and 2022 follow (in billions):

	2023	2022
FICC		
GSD	$ 2,231	$ 1,418
MBSD	360	282
NSCC	197	166

There were no defaults by Participants to these obligations in 2023 and 2022.

21. OFF BALANCE SHEET AND CONCENTRATION OF CREDIT RISKS

DTCC is exposed to significant credit risk to third parties including its Participants, which extends to companies within the global financial services industry. DTCC's global Participant base includes brokers, dealers, institutional investors, banks, trust issuers, mutual fund companies, insurance carriers, hedge funds, qualified institutional buyer clients via the sponsored membership service and other financial intermediaries - either directly or through correspondent relationships. Credit risk represents the potential for loss due to the default or deterioration in credit quality of a Participant. The Company’s exposure to credit risk is primarily derived from providing clearing and settlement service to Participants.

21. OFF BALANCE SHEET AND CONCENTRATION OF CREDIT RISKS (CONTINUED)

The Company is exposed to credit risk on a daily basis. This risk arises at DTCC as it guarantees certain obligations of its Participants under specified circumstances pursuant to its rules or should a Participant fail to fulfill its settlement obligation. The Company manages and mitigates this risk by identifying, measuring and responding to these risks in order to protect the safety and soundness of the DTCC clearing and settlement system.

Various tools are utilized to mitigate these risks including, but not limited to: setting capital adequacy standards; assessing new applicants for membership; performing continuous monitoring of Participants' financial condition; reviewing Participants' daily activity and determining appropriate collateral requirements; maintaining its risk-based Participants' and Clearing Funds; netting obligations; marking unsettled obligations to market; and utilizing quantitative analytical tools.

To become a Participant at any of DTCC's clearing agency or registered clearing house subsidiaries, an applicant must meet minimum eligibility criteria that are specified in the subsidiaries' respective rules. All applicants must provide the Company with certain financial and operational information. This information is reviewed to ensure the applicant has sufficient financial resources to make anticipated contributions to the relevant subsidiary's Participants' or Clearing Funds and to meet its obligations to the subsidiary. The credit quality of the Participant is evaluated at the time of application and monitored on an ongoing basis to determine if the Participant continues to be financially stable and able to meet the financial requirements of membership. As part of its review, the Company utilizes an internal credit risk-rating matrix and/or other forms of surveillance to risk-rate or monitor Participants. The resulting rating or degree of surveillance determines the level of financial review to be performed on each Participant and may impact their Participants' and Clearing Funds requirements.

Collateralization controls and net debit caps are employed by DTC to protect Participants against the risk that one or more Participants may fail to pay for their settlement obligations. DTC's collateralization controls prevent a Participant's net debit balance from exceeding the value of collateral in its account. The controls are designed to provide DTC with sufficient collateral to obtain funding for settlement in the event a Participant fails to pay its settlement obligation. DTC's net debit cap controls limit the net settlement debit that each Participant can incur to an amount, based upon activity level, which would be covered by DTC's liquidity resources. The net debit cap requires DTC to maintain sufficient liquidity to complete settlement should any single Participant or Participant family fail to settle.

NSCC and FICC collect Clearing Fund deposits from their Participants using a risk-based margining methodology. The risk-based methodology enables them to identify the risks posed by a Participant's unsettled portfolio and to quickly adjust and collect additional deposits as needed to cover those risks. At multiple times during the day, Clearing Fund requirements are calculated for each Participant based on their then-current unsettled and pending transactions. Security pricing is updated on an intraday basis and additional charges may be collected to cover significant price movements from those Participants with a significant exposure in the identified security. The Company monitors Participants' overall trading activities throughout the trading day to determine whether exposures exist that would require special actions to increase their Clearing Fund deposits.

The Company regularly performs back testing, stress testing and model performance monitoring of the quality and accuracy of its risk management systems to ensure the adequacy of Participants' and Clearing Fund requirements and to respond to other risk factors that the monitoring may reveal.

DTC maintains a committed, secured line of credit to support potential liquidity needs in the event of a Participant default. NSCC maintains liquid resources to support potential liquidity needs in the event of a Participant default. In addition to the cash deposits to the Clearing Fund, these resources also include the cash that would be obtained from a committed, secured line of credit, proceeds from issuance of senior notes, and proceeds from a commercial paper and extendable note program. NSCC has the Supplemental Liquidity Deposit ("SLD") - a rules-based funding obligation that requires Members whose activity generate liquidity needs in excess of NSCC's then available liquid resources, to fund such additional amounts. SLD deposits must be in cash and are held and maintained in the same manner as other Clearing Fund deposits. FICC maintains a rules-based, committed liquidity resource (i.e., the capped contingency liquidity facility) for each division to support potential liquidity needs in the event of a Participant default.

21. OFF BALANCE SHEET AND CONCENTRATION OF CREDIT RISKS (CONTINUED)

The Company also limits its exposure to potential losses from Participant default through multilateral netting contracts and limited cross-guaranty agreements with other clearing agencies. These arrangements are designed to provide a mechanism for the sharing of excess net resources of a common defaulting Participant held at one clearing agency to cover losses incurred at another clearing agency. NSCC, FICC and DTC have a multilateral netting contract and limited cross-guaranty agreement with each other and with OCC under which these clearing agencies have agreed to make payment to each other for unsatisfied obligations of a common defaulting Participant to the extent they have excess resources of the defaulting Participant. NSCC and DTC are also party to a netting contract and limited cross-guaranty agreement that includes special cross-guaranties and related arrangements designed to permit transactions to flow smoothly between DTC's system and NSCC's CNS system in a collateralized environment. These guaranties reduce risk at NSCC by ensuring that long allocations, or the approximate value of long allocations, will be made available to NSCC in a default situation.

If a DTC Participant defaults, such Participant’s deposits to the Participants' Fund would be used to satisfy an outstanding obligation and/or loss incurred by DTC. If those funds are insufficient to cover the defaulting Participant's outstanding obligations, DTC may use other Participant deposits in the Participants' Fund or apply a portion of its retained earnings to cover the loss.

Credit risk also comes from the investment of financial assets, which consist principally of cash and cash equivalents, investments, accounts receivable and Participants' and Clearing Funds. Concentrations of credit risk may arise due to large, connected individual exposures and significant exposures to groups of Participants whose likelihood of default is driven by common underlying factors including economic conditions affecting financial markets, the securities industry and debt-issuing countries.

Cash and cash equivalents. The Company maintains cash and cash equivalents with various financial institutions including the FRBNY. The Company’s investment policy is designed to limit its exposure with any one financial institution. As part of its credit and risk management processes, the Company performs periodic evaluations of the relative credit standing of the financial institutions with whom it places funds. The Company generally makes deposits with financial institutions having a credit rating of at least BBB+/Baa1 or better from recognized rating agencies and that are approved via its internal credit review process. The Company also monitors the credit ratings of the financial institutions with whom it places funds on an ongoing basis to identify any significant change in a financial institution’s condition. If such a change takes place, the amounts deposited in such financial institutions may be adjusted.

Marketable securities. The Company may invest in reverse repurchase agreements, money market funds, bank deposits, and directly in U.S. Treasury securities and debt obligations of the U.S. government or those U.S. government agencies guaranteed by the U.S. government, pursuant to its investment policy. Credit risk related to investments in marketable securities involves the risk of nonperformance by the counterparty, which could result in a material loss.

Accounts receivable. Credit risk related to accounts receivable involves the risk of non-payment by the counterparty. Credit risk is diversified due to the large number of Participants. The Company also performs ongoing credit evaluations of the financial conditions of its Participants and evaluates the delinquency status of the receivables.

Participants' and Clearing Funds. Cash deposits to the Participants' and Clearing Funds are invested in bank accounts that provide same day access to funds.

Derivatives and hedging. Derivatives may give rise to counterparty credit risk, which is the risk that a derivative counterparty will default on, or otherwise be unable to perform pursuant to, an uncollateralized derivative exposure. To mitigate derivative credit risk, counterparties are required to be pre-approved and rated as investment grade, and counterparty risk exposures are centrally monitored.

22. PARENT COMPANY CONDENSED FINANCIAL STATEMENTS

Condensed financial statements for DTCC (the Parent Company Condensed Financial Statements) that follow should be read in conjunction with the accompanying consolidated financial statements of the Company and its subsidiaries and the notes thereto. The Parent Company Condensed Financial Statements as of December 31, 2023 and 2022 require management to make estimates and assumptions that affect the reported amounts of assets, liabilities, revenues and expenses. Management believes that the estimates utilized in the preparation of the condensed financial statements are reasonable. Actual results could differ materially from these estimates.

The DTCC Parent Company Condensed Statements of Financial Condition follow (in thousands):

	As of December 31,	
	2023	2022
ASSETS:		
Cash and cash equivalents	$ 781,514	$ 1,004,487
Short-term investments	50,000	—
Investments in subsidiaries	2,354,736	1,991,521
Due from subsidiaries	370,669	276,573
Premises, equipment and intangible assets	224,044	176,158
Operating lease right-of-use asset	141,932	170,533
Other assets	479,742	470,591
TOTAL ASSETS	$ 4,402,637	$ 4,089,863
LIABILITIES AND SHAREHOLDERS' EQUITY:		
LIABILITIES:		
Pension and postretirement benefits	$ 119,443	$ 130,999
Operating lease liability	191,830	221,338
Other liabilities	380,787	469,575
Total liabilities	692,060	821,912
SHAREHOLDERS' EQUITY:		
Preferred stock	491,500	491,500
Common stock	5,091	5,091
Additional paid-in capital	411,065	411,065
Retained earnings	2,982,973	2,546,925
Accumulated other comprehensive loss, net of tax	(180,052)	(186,630)
Total shareholders' equity	3,710,577	3,267,951
TOTAL LIABILITIES AND SHAREHOLDERS' EQUITY	$ 4,402,637	$ 4,089,863

22. PARENT COMPANY CONDENSED FINANCIAL STATEMENTS (CONTINUED)

DTCC Parent Company has an agreement with its subsidiaries whereby the DTCC Parent Company pays for substantially all of the expenses for the operations of its subsidiaries. The related expenses are allocated to subsidiaries based upon their estimated use of such goods or services as determined by applicable allocation factors. Further, the agreement provides that the DTCC Parent Company performs credit and quantitative risk services, and certain other services for its subsidiaries, including among other things, administrative, internal audit, finance and legal services. The billing for these services as a percentage of total allocated expenses ranged from 104% to 108% in 2023 and 2022, excluding pass-through charges and the impact of capitalized software. The fee, representing the amount over actual cost, is included in Interest and other income in the Condensed Statements of Income below.

The DTCC Parent Company Condensed Statements of Income follow (in thousands):

	For the years ended December 31,	
	2023	**2022**
REVENUES:		
Equity in earnings of subsidiaries	$ 340,424	$ 249,934
Interest and other income	166,192	95,593
Total revenues	506,616	345,527
OPERATING EXPENSES (INCOME):		
Professional services	9,663	11,095
Other	10,035	(35,618)
Total operating expenses (income)	19,698	(24,523)
Income before taxes	486,918	370,050
Provision for income taxes	33,995	37,462
Net income attributable to DTCC	$ 452,923	$ 332,588

22. PARENT COMPANY CONDENSED FINANCIAL STATEMENTS (CONTINUED)

The DTCC Parent Company Condensed Statements of Cash Flows follow (in thousands):

	For the years ended December 31, 2023	2022
CASH FLOWS FROM OPERATING ACTIVITIES:		
Net income	$ 452,923	$ 332,588
Adjustments to reconcile net income to net cash provided by/(used in) operating activities:		
Equity in earnings of subsidiaries	(340,424)	(249,934)
Deferred income taxes	(17,672)	17,592
Other	6,275	20,984
Net change in:		
Due from subsidiaries	(94,096)	146,864
Operating lease liability	(7,181)	(17,321)
Other operating assets and liabilities, net	236,068	505,075
Net cash provided by operating activities	235,893	755,848
CASH FLOWS FROM INVESTING ACTIVITIES:		
Investments in subsidiaries	(300,470)	(210,333)
Purchase of Short-term investments	(50,000)	—
Capitalized software development costs and purchases of Premises and equipment	(91,554)	(56,156)
Cash used in investing activities	(442,024)	(266,489)
CASH FLOWS FROM FINANCING ACTIVITIES:		
Preferred stock dividend payments	(16,875)	(16,876)
Cash used in financing activities	(16,875)	(16,876)
Effect of foreign exchange rate changes on Cash and cash equivalents	33	(56)
Net (decrease)/increase in Cash and cash equivalents	(222,973)	472,427
Cash and cash equivalents - Beginning of year	1,004,487	532,060
Cash and cash equivalents - End of year	$ 781,514	$ 1,004,487
SUPPLEMENTAL DISCLOSURES:		
Interest paid	$ 2,276	$ 2,788
Income taxes paid - net of refunds	$ 76,428	$ 5,677

23. SUBSEQUENT EVENTS

The Company evaluated events and transactions occurring after December 31, 2023 through March 25, 2024, the date these consolidated financial statements were available to be issued, for potential recognition or disclosure. No additional events or transactions, other than as disclosed below, occurred during such period that would require recognition or disclosure in these consolidated financial statements.

A 2023 dividend amount of $6,300,000 was approved and declared by the Board of Directors in March 2024, and will be paid in April 2024, to the holders of DTC Series A Preferred stock during 2023.