Risk Factors Comparison 2024-02-27 to 2023-02-28 Form: 10-K

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In the normal course of our business activities, we are exposed to a variety of risks. The following discussion sets forth the risk factors that we have identified as being most significant to Northern Trust. Although we discuss these risk factors primarily in the context of their potential effects on our business, financial condition or results of operations, you should understand that these effects can have further negative implications such as: reducing the price of our common stock and other securities; reducing our capital, which can have regulatory and other consequences; affecting the confidence that clients, counterparties and / or applicable regulators have in us, with a resulting negative effect on our ability to conduct and grow our businesses; and reducing the attractiveness of our securities to rating agencies and potential purchasers, which may affect adversely our ability to raise capital and secure other funding or the cost at which we are able to do so. Additional risks beyond those discussed below, elsewhere in this Annual Report on Form 10- K or in other of our reports filed with, or furnished to, the SEC also could affect us adversely. Further, we cannot assure you that the risk factors herein or elsewhere in our other reports address all potential risks that we may face and you should not interpret discussion of any risk to imply that such risk has not already materialized. These risk factors also serve to describe factors which may cause our results to differ materially from those described in forward-looking statements included herein or in other documents or statements that make reference to this Annual Report on Form 10-K. Forward- looking statements and other factors that may affect future results are discussed under " Forward- Looking Statements " included in Item 7, " Management' s Discussion and Analysis of Financial Condition and Results of Operations. " **14** ~~2022~~ **2023** ANNUAL REPORT | NORTHERN TRUST CORPORATION ~~13~~ Summary Our business, financial condition or results of operations may be materially and adversely affected by various risk types and considerations, including market risks, operational risks, credit risks, liquidity risks, regulatory and legal risks, strategic risks, and other risks, including as a result of the following: Market Risks • We are dependent on fee- based business for a majority of our revenues, which may be affected adversely by market volatility, a downturn in economic conditions, underperformance and / or negative trends in investment preferences. • Changes in interest rates can affect our earnings negatively. • Changes in the monetary, trade and other policies of various regulatory authorities, central banks, governments and international agencies may reduce our earnings and affect our growth prospects negatively. • Macroeconomic conditions and uncertainty in the global economy, including the financial stability of various regions or countries across the globe, including the risk of defaults on sovereign debt and related stresses on financial markets, could have a significant adverse effect on our earnings. • Declines in the value of securities held in our investment portfolio can affect us negatively. • Volatility levels and fluctuations in foreign currency exchange rates may affect our earnings. • Changes in a number of particular market conditions can affect our earnings negatively. Operational Risks • Many types of operational risks can affect our earnings negatively. • **We are highly dependent on information technology systems, and networks, many of which are operated by third parties, and any** ~~Failures~~ **failures** of, or disruptions to, our **or such third parties'** technological systems or **networks could materially and adversely affect our business. •** ~~breaches~~ **Breaches** of our security measures, including, but not limited to, those resulting from cyber- attacks, **or other information security incidents** may result in losses. • Errors, breakdowns in controls or other mistakes in the provision of services to clients or in carrying out transactions for our own account can subject us to liability, result in losses or have a negative effect on our earnings in other ways. • Our dependence on technology, and the need to update frequently our technology infrastructure, exposes us to risks that also can result in losses. • A failure or circumvention of our controls and procedures could have a material adverse effect on our business, financial condition and results of operations. • Failure of any of our third- party vendors (or their vendors) to perform can result in losses. • We are subject to certain risks inherent in operating globally which may affect our business adversely. • Failure to control our costs and expenses adequately could affect our earnings negatively. • Pandemics, natural disasters, global climate change, acts of terrorism, geopolitical tensions, and global conflicts may have a negative impact on our business and operations. Credit Risks • Failure to evaluate accurately the prospects for repayment when we extend credit or maintain an adequate allowance for credit losses can result in losses or the need to make additional provisions for credit losses, both of which reduce our earnings. • Market volatility and / or weak economic conditions can result in losses or the need for additional provisions for credit losses, both of which reduce our earnings. • The failure or perceived weakness of any of our significant counterparties could expose us to loss. ~~• The transition away from LIBOR or changes in the method pursuant to which other interest rate benchmarks are determined could adversely impact our business and results of operations.~~ Liquidity Risks • If we do not manage our liquidity effectively, our business could suffer. • If the Bank is unable to supply the Corporation with funds over time, the Corporation could be unable to meet its various obligations. • We may need to raise additional capital in the future, which may not be available to us or may only be available on unfavorable terms. • Any downgrades in our credit ratings, or an actual or perceived reduction in our financial strength, could affect our borrowing costs, capital costs and liquidity adversely. ~~14 2022~~ **2023** ANNUAL REPORT | NORTHERN TRUST CORPORATION **15** Regulatory and Legal Risks • Failure to comply with regulations and / or supervisory expectations can result in penalties and regulatory constraints that restrict our ability to grow or even conduct our business, or that reduce earnings. • **We are subject to extensive and evolving government regulation and supervision that impacts our operations.** Changes by the U. S. and other governments to laws, regulations and policies applicable to the financial services industry may heighten the challenges we face and make regulatory compliance more difficult and costly **. • We are subject to complex and evolving laws, regulations, rules, standards and contractual obligations regarding data privacy and security, which could increase the cost of doing business, compliance risks and potential liability** . • We may be impacted adversely by claims or litigation, including claims or litigation relating to our fiduciary responsibilities. • We may be impacted adversely by supervisory and / or regulatory enforcement matters. • We may fail to set aside adequate reserves for, or otherwise underestimate our liability relating to, pending and threatened claims, with a negative effect on our earnings. • The ultimate impact on us of **regulatory divergence between** the United Kingdom **and** ~~’ s withdrawal from~~ the European Union remains uncertain. • If we fail to comply with legal standards, we could incur liability to our clients or lose clients, which could affect our earnings negatively. Strategic Risks • If we are not able to attract, retain and motivate personnel, our business could be negatively affected. • **•** If we do not develop and execute strategic plans successfully,our growth may be impacted negatively.• We are subject to intense competition in all aspects of our businesses,which could have a negative effect on our ability to maintain satisfactory prices and grow our earnings.• Damage to our reputation could have a direct and negative effect on our ability to compete,grow and generate revenue.• We need to invest in innovation constantly,and the inability or failure to do so may affect our businesses and earnings negatively.• Failure to understand or appreciate fully the risks associated with development or delivery of new product and service offerings may affect our businesses and earnings negatively.• Our success with large,complex clients requires an understanding of the market and legal,regulatory and accounting standards in various jurisdictions.• We may take actions to maintain client satisfaction that result in losses or reduced earnings. ~~•~~ Our operations, businesses and clients could be materially adversely affected by the effects of climate change or concerns related thereto. • If we do not develop and...... result in losses or reduced earnings. Other Risks • The systems and models we employ to analyze, monitor and mitigate risks, as well as for other business purposes, are inherently limited, may not be effective in all cases and, in any case, cannot eliminate all risks that we face. • Changes in tax laws and interpretations and **challenges to our** tax ~~challenges~~ **positions** may affect our earnings negatively. • Changes in accounting standards may be difficult to predict and could have a material impact on our consolidated financial statements. • Our ability to return capital to stockholders is subject to the discretion of our Board of Directors and may be limited by U. S. banking laws and regulations, applicable provisions of Delaware law, or our failure to pay full and timely dividends on our preferred stock and the terms of our outstanding debt. Our principal operational focus is on fee- based business, which is distinct from commercial banking institutions that earn most of their revenues from loans and other traditional interest- generating products and services. Fees for many of our products and services are based on the market value of assets under management, custody or administration; the volume of transactions processed; securities lending volume and spreads; fees for other services rendered; and in certain businesses, fees calculated as a percentage of our clients’ earnings, all of which may be impacted negatively by market volatility, a downturn in economic conditions, underperformance and / or negative trends in investment preferences. For example, downturns in equity markets and decreases in the value of debt- related investments resulting from market disruption, illiquidity or other factors historically have reduced the valuations of the assets we manage or service for others, which generally impacted our earnings negatively. Further, although we do not hold, invest in, or custody cryptocurrency assets, the markets in which they trade are highly volatile and volatility in these markets may impact the markets for other assets that we hold, invest in, or custody, which could also impact our fees or financial condition. Market volatility and / or weak economic conditions also may affect wealth creation, investment preferences, trading activities, and savings patterns, which impact demand for certain products and services that we provide. Our earnings also may be affected by poor investment returns or changes in investment preferences driven by factors beyond market volatility or weak economic conditions. Poor absolute or relative investment performance in funds or client accounts that we manage or in investment products that we design or provide may result in declines in the market values of portfolios that we manage and / or administer and may affect our ability to retain existing assets and to attract new clients or additional assets from existing clients. For example, **from time to time** in ~~2022~~ **the past** , outflows **from** ~~we experienced in~~ certain of our products **driven by** ~~as a result of the impact of weaker markets and~~ relative investment performance **or other factors** adversely impacted our overall fees derived from assets that we manage. Broader changes in investment preferences that lead to less investment in mutual funds or other collective funds, such as the shift in investor preference to lower fee products, could also impact our earnings negatively. The direction and level of interest rates are important factors in our earnings. Interest rate changes could affect the interest earned on assets differently than interest paid on liabilities. In response to rising inflation, the Federal Reserve Board ~~has~~ increased interest rates from historically low levels **during 2022 and 2023** . While a rising interest rate environment generally has a positive effect on our net interest margin, in some circumstances, a rise in interest rates also may affect us negatively. For example, the ~~recent~~ rapid increases in interest rates ~~has~~ **during 2022 and 2023** adversely impacted the value of certain of our investment securities, with resultant impacts on our capital, liquidity, and earnings. Additionally, ~~recent~~ higher interest rates **historically** have caused, and may in the future cause: market volatility and downturns in equity markets, resulting in a decrease in the valuations of the assets we manage or service for others, which generally impact our earnings negatively; our clients to transfer funds into investments with higher rates of return, resulting in decreased deposit levels and higher fund or account redemptions; our borrowers to experience difficulties in making higher interest payments, resulting in increased credit costs, provisions for loan and lease losses and charge- offs; reduced bond and fixed income fund liquidity, resulting in lower performance, yields and fees; or higher funding costs. Conversely, low- interest- rate environments generally result in a compressed net interest margin and also have a negative impact on our fees earned on certain of our products. For example, in the past we waived certain fees associated with money market funds due to the low level of short- term interest rates. Low net interest margins and fee waivers each negatively impact our earnings. Although we have policies and procedures in place to assess and mitigate potential impacts of interest rate risks, if our assumptions about any number of variables are incorrect, these policies and procedures to mitigate risk may be ineffective, which could impact earnings negatively. Please see “ Market Risk ” in the “ Risk Management ” section included in Item 7, “ Management’ s Discussion and Analysis of Financial Condition and Results of Operations, ” for a more detailed discussion of interest rate and market risks we face. The monetary, trade and other policies of U. S. and international governments, agencies and regulatory bodies have a significant impact on economic conditions and overall financial market performance. For example, the Federal Reserve Board regulates the supply of money and credit in the ~~United States~~ **U. S. through quantitative tightening and / or easing** , and its policies determine in large part the level of interest rates and our cost of funds for lending and investing, and play a role in contributing to or moderating levels of inflation, all of which meaningfully impact our earnings ~~. Recent actions of the Federal Reserve Board and other regulatory authorities have reduced the value of financial instruments we hold and may continue to do so in the future~~ . Further, their policies can affect our borrowers by increasing interest rates or making sources of funding less available, which may ~~16~~ **increase the risk that borrowers fail to repay their loans from us. Changes in monetary, trade and other governmental policies are beyond our** ~~2022~~ **2023** ANNUAL REPORT | NORTHERN TRUST CORPORATION **17** ~~increase the risk that borrowers fail to repay their loans from us. Changes in monetary, trade and other governmental policies are beyond our~~ control and can be difficult to predict, and we cannot determine the ultimate effect that any such changes would have upon our business, financial condition or results of operations. Risks and concerns about the financial stability of various regions or countries across the globe could have a detrimental impact on economic and market conditions in these or other markets across the world. Foreign market and economic disruptions have affected, and may in the future affect, consumer confidence levels and spending, international trade policy, personal bankruptcy rates, levels of incurrence of and default on consumer debt, and home prices. Additionally, financial markets may be adversely affected by the **liquidity or capital deficiencies (actual or perceived) of financial institutions and related industry and government actions,** current or anticipated impact of military conflict (including the continuing military ~~conflict~~ **conflicts** involving Ukraine and the Russian Federation **and Israel and Hamas and other evolving events in the Middle East**), terrorism, political or civil unrest **, public health epidemics or pandemics, the exit or potential exit of one or more countries from the EU** , sovereign debt downgrades or debt crises ~~(including any uncertainty over the U. S. government debt ceiling), public health epidemics or pandemics, the exit or potential exit of one or more countries from the EU~~ , or other geopolitical events. **For example, developments related to the U. S. federal debt ceiling, including the possibility of a government shutdown, default by the U. S. government on its debt obligations, or related credit- rating downgrades, could have adverse effects on the broader economy, disrupt access to capital markets, and contribute to, or worsen, an economic recession.** The cumulative effect of uncertain business conditions or economic challenges faced in various foreign markets, including fiscal or monetary concerns ~~, rising inflation and interest rates~~ , economic downturns and the possibility of a recession in some jurisdictions, other economic factors (including changes in foreign currency exchange **rates, interest** rates and changes to tax laws or the application or enforcement practices of such laws), or volatility or lack of confidence in the financial markets may adversely affect certain portions of our business, financial condition, and results of operations. Our investment securities portfolio represents a greater proportion, and our loan ~~and lease portfolios~~ **portfolio** ~~represent~~ **represents** a smaller proportion, of our total consolidated assets in comparison to many other financial institutions. The value of securities available for sale and held to maturity within our investment portfolio, which is generally determined based upon market values available from third-party sources, have fluctuated, and may continue in the future to fluctuate, as a result of market volatility and economic or financial market conditions. **For example, in 2023, and again in early 2024, we realized notable losses on the sale of available for sale securities and we may realize additional losses in the future.** Declines in the value of securities held in our investment portfolio negatively impact our levels of capital, liquidity, and, to the extent we realize losses, earnings. Although we have policies and procedures in place to assess and mitigate potential impacts of market risks, including hedging- related strategies, those policies and procedures are inherently limited because they cannot anticipate the existence or future development of currently unanticipated or unknown risks. Accordingly, market risks have, from time to time, negatively affected the value of securities held in our investment portfolio and in the future we could suffer additional adverse effects as a result of our failure to anticipate and manage these risks properly. We provide foreign exchange services to our clients, primarily in connection with our global custody business. Foreign currency volatility influences our foreign exchange trading income as does the level of client activity. Foreign currency volatility and changes in client activity may result in reduced foreign exchange trading income. Fluctuations in exchange rates may raise the potential for losses resulting from foreign currency trading positions where aggregate obligations to purchase and sell a currency other than the U. S. dollar do not offset each other or offset each other in different time periods. We also are exposed to non- trading foreign currency risk as a result of our holdings of non- U. S. dollar denominated assets and liabilities, investments in non- U. S. subsidiaries, and future non- U. S. dollar denominated revenue and expense. We have policies and procedures in place to assess and mitigate potential impacts of foreign exchange risks, including hedging- related strategies. Any failure or circumvention of our procedures to mitigate risk may impact earnings negatively. Please see " Market Risk " in the " Risk Management " section included in Item 7, " Management' s Discussion and Analysis of Financial Condition and Results of Operations, " for a more detailed discussion of market risks we face. In past periods, reductions in the volatility of currency- trading markets, the level of cross- border investing activity, and the demand for borrowing securities or willingness to lend such securities have affected our earnings from activities such as foreign exchange trading and securities lending negatively. If these conditions occur in the future, our earnings from these activities may be affected negatively. In certain of our businesses, such as securities lending, our fee is calculated as a percentage of our clients' earnings, such that market and other factors that reduce our clients' earnings from investments or trading activities also reduce our revenues. **18** ~~2022~~ **2023** ANNUAL REPORT | NORTHERN TRUST CORPORATION ~~17~~ We regularly assess and monitor operational risk in our businesses. Despite our efforts to assess and monitor operational risk, our risk management program may not be effective in all cases. Factors that can impact operations and expose us to risks varying in size, scale and scope, some or all of which may be exacerbated by the ~~increase in~~ **trend toward** hybrid and remote working arrangements in recent years, include: • failures of technological systems **or networks** or breaches of security measures, including, but not limited to, those resulting from computer viruses ~~or~~ **,** cyber- attacks **or other information security incidents** ; • human errors or omissions, including failures to comply with applicable laws or corporate policies and procedures; • theft, fraud or misappropriation of assets, whether arising from the intentional actions of internal personnel or external third parties; •

defects or interruptions in computer or communications systems; • breakdowns in processes **and internal controls** ; over-reliance on manual processes **and controls** , which are less scalable ~~, and inherently more prone to error,~~ than automated processes **and controls** ; **•** ~~breakdowns in internal controls or~~ failures of the systems and facilities that support our operations **; • failure of any third- party vendor to properly execute the processes on which Northern Trust relies** ; • unsuccessful or difficult implementation of computer systems upgrades; • defects in product design or delivery; • difficulty in accurately pricing assets, which can be aggravated by market volatility and illiquidity and lack of reliable pricing from third- party vendors; • negative developments in relationships with key counterparties, third- party vendors, employees or associates in our day- to- day operations; and • external events that are wholly or partially beyond our control, such as pandemics, geopolitical events, political or social unrest, natural disasters or acts of terrorism. While we have in place many controls and business continuity plans designed to address many of these factors, these plans may not operate successfully to mitigate these risks effectively. We also may fail to identify or fully understand the implications and risks associated with changes in the financial markets or our businesses — particularly as our geographic footprint, product pipeline and client needs and expectations evolve — and consequently fail to enhance our controls and business continuity plans to address those changes in an adequate or timely fashion. If our controls and business continuity plans do not address the factors noted above and operate to mitigate the associated risks successfully, such factors may have a negative impact on our business (including operational resilience), financial condition or results of operations. In addition, an important aspect of managing our operational risk is creating a risk culture in which all employees fully understand the inherent risk in our business and the importance of managing risk as it relates to their job functions. We continue to enhance our risk management program to support our risk culture, ensuring that it is sustainable and appropriate for our role as a major financial institution. Nonetheless, if we fail to provide the appropriate environment that sensitizes all of our employees to managing risk, our business could be impacted adversely. Please see " Other Risks " in this " Risk Factors " section for further description of risks associated with the systems and models we employ to analyze, monitor and mitigate risks. **We are highly dependent on information technology systems and networks, many of which are operated by third parties, and any failures of, or disruptions to, our or such third parties' technological systems or networks could materially and adversely affect our business.** Our business is dependent on our and third parties' information technology systems **and** ~~. Despite our implementation of a variety of security measures, our computer systems,~~ networks ~~, and data could be subject to cyber- attacks and unauthorized access, use, alteration, or destruction, such as from physical and electronic break- ins or unauthorized tampering, malware and computer virus attacks, or system failures and disruptions~~ . Any failure, interruption or breach in the security of ~~our~~ **any such** systems **or networks** could severely disrupt our operations and could subject us to liability claims, harm our reputation, interrupt our operations, or otherwise adversely affect our business, financial condition or results of operations ~~. Our systems involve the processing, storage and transmission of clients' and our proprietary and confidential information, and security breaches, including cyber- attacks, could expose us to a risk of theft, loss or other misappropriation of this information. Our security measures may be breached due to the actions of outside parties, employee error, failure of our controls with respect to access to our systems, malfeasance or otherwise, and, as a result, an unauthorized party may obtain access to our or our clients' proprietary and confidential information, resulting in the theft, loss, destruction, gathering, monitoring, dissemination, or other misappropriation of this information~~ . Additionally, our computer, communications, data processing, networks, backup, business continuity or other operating, information or technology systems, including those that we outsource to ~~other~~ providers, may fail to operate properly or become disabled, overloaded or damaged as a result of a number of factors, including events that are wholly or partially beyond our control, which could have a negative effect on our ability to conduct our business activities ~~. 18 2022 ANNUAL REPORT | NORTHERN TRUST CORPORATION Additionally, we are subject to complex and evolving laws and regulations governing cybersecurity, data privacy and data protection, which may differ and potentially conflict, in various jurisdictions. Regulators globally are introducing the potential for greater monetary fines on institutions that suffer from breaches leading to the misappropriation of such information. Most states, the EU and other non- U. S. jurisdictions also have adopted their own statutes and / or regulations concerning data privacy and security and notification of data breaches. These and other changes in laws or regulations associated with the enhanced protection of personal and other types of information could greatly increase compliance costs and the size of potential fines related to the protection of such information. Information security and data privacy risks for large financial institutions like us are significant in part because of the evolving proliferation of new technologies, the use of internet-based solutions, mobile devices, and cloud technologies to conduct financial transactions and the increased sophistication and rapidly evolving techniques of hackers, terrorists, organized crime and other external parties, including foreign state actors. If we fail to continue to upgrade our technology infrastructure to ensure effective information security and data privacy relative to the type, size and complexity of our operations, we could become more vulnerable to cyber- attack and, consequently, subject to significant regulatory penalties and reputational damage. Also, like many large enterprises, in response to the COVID- 19 pandemic in recent years, a significant portion of our workforce has shifted to a hybrid work environment that includes a combination of in- office and remote work. The increase in remote work and remote access to our systems, initially driven by the COVID- 19 pandemic, also introduces potential vulnerabilities to cyber threats~~ . The third parties with which we do business also are susceptible to the foregoing risks (including regarding the third parties with which they are similarly interconnected or on which they otherwise rely), and our or their business operations and activities may therefore be affected adversely, perhaps materially, by failures, terminations, errors or malfeasance by, or attacks or constraints on, one or more financial, technology, infrastructure or government institutions or intermediaries with whom we or they are interconnected or conduct business. **2023 ANNUAL REPORT | NORTHERN TRUST CORPORATION 19 Our business interruption insurance may be inadequate to compensate us for all losses that may occur as a result of any system, network or operational failure or disruption. Breaches of our security measures, including, but not limited to, those resulting from cyber- attacks or other information security incidents, may result in losses. Our systems involve the storage, transmission and other processing**

of clients' and our personal, proprietary, confidential and sensitive information, and security breaches, including cyber-attacks or other information security incidents, could expose us to a risk of theft, loss, destruction, gathering, monitoring, dissemination, misappropriation, misuse, alteration, or unauthorized disclosure of or unauthorized access to this information. Despite our implementation of a variety of security measures, our computer systems, networks, and data, including clients' or our personal, proprietary, confidential and sensitive information, could be subject to cyber- attacks or other information security incidents, such as, among other things, from physical and electronic break- ins or unauthorized tampering, malware and computer virus attacks, ransomware attacks, social engineering attacks (including phishing attacks) or denial- of- service attacks. Our security measures also may be breached due to the actions of outside parties, employee error, failure of our controls with respect to access to our systems, malfeasance or otherwise. Any failure, interruption or breach in the security of our systems could severely disrupt our operations and could subject us to liability claims, harm our reputation, interrupt our operations, or otherwise adversely affect our business, financial condition or results of operations. Data privacy and security risks for large financial institutions like us are significant in part because of the evolving proliferation of new technologies, the use of internet- based solutions, mobile devices, and cloud technologies to conduct financial transactions and the increased sophistication and rapidly evolving techniques of hackers, terrorists, organized crime and other external parties, including foreign state actors and state- sponsored actors, any of which may see their effectiveness enhanced by the use of artificial intelligence. Data privacy and security risks also may derive from fraud or malice on the part of our employees or third parties, or may result from human error, software bugs, server malfunctions, software or hardware failure or other technological failure. If we fail to continue to upgrade our technology infrastructure to ensure effective data privacy and security relative to the type, size and complexity of our operations, we could become more vulnerable to cyber- attacks and other information security incidents and, consequently, subject to significant regulatory penalties and reputational damage. Also, like many large enterprises, the trend in the past several years toward a hybrid work environment that includes a combination of in-office and remote work creates a broader attack surface for, and potential vulnerabilities from, cyber threats. While we **generally** conduct security assessments on third- party vendors, we cannot be certain that their information security protocols are sufficient to withstand a cyber- attack or other **information** security ~~breach~~ **incident. Some of our vendors may store or have access to our data and may not have effective controls, processes, or practices to protect our information from loss, unauthorized disclosure, unauthorized use or misappropriation, cyber- attacks or other information security incidents** . In addition, our clients often use personal devices, such as computers, smart phones and tablets, which are particularly vulnerable to loss and theft, as well as third parties with whom they share information used for authentication, to access our systems and **networks and** manage their accounts, which may heighten the risk of system failures, interruptions or security breaches. Moreover, the increased use of mobile and cloud technologies could heighten these and other operational risks. Reliance on mobile or cloud technology or any failure by mobile technology and cloud service providers to adequately safeguard their systems and **networks and** prevent cyber- attacks **or other information security incidents** could disrupt our operations or the operations of our or their service providers and result in misappropriation, corruption or loss of personal, confidential ~~or~~ **,** proprietary **, or other sensitive** information or the inability to conduct ordinary business operations. In addition, there is a risk that encryption and other protective measures may be circumvented, particularly to the extent that new computing technologies increase the speed and computing power available **. A vulnerability in our service providers' software or systems, a failure of our service providers' safeguards, policies or procedures, or a cyber- attack or other information security incident affecting any of these third parties could harm our business** . In recent years, several financial services firms suffered successful cyber- attacks launched both domestically and from abroad, resulting in the disruption of services to clients, loss or misappropriation of sensitive or private information, and reputational harm. We and our clients have been, and expect to continue to be, subject to a wide variety of cyber- attacks and **other similar** threats, including computer viruses, ransomware and other malicious code, distributed denial **-** of **-** service attacks, and phishing and vishing attacks, and it is possible that we could suffer material losses resulting from a breach. Because the techniques used to obtain unauthorized access, disable or degrade service or sabotage systems **and networks** change frequently and often are not recognized until launched against a target, we may be unable to anticipate these techniques, to implement adequate preventative measures, or to address them until they are discovered. In addition, successful cyber- attacks may persist for an extended period of time before being detected. Because any investigation of an information security incident would be inherently unpredictable, the extent of a particular information security incident and the path of investigating the incident may not be immediately clear. It may take a significant amount of time before such an **20 2023 ANNUAL REPORT | NORTHERN TRUST CORPORATION** investigation can be completed and full and reliable information about the incident is known. While such an investigation is ongoing, we may not necessarily know the extent of the harm or how best to remediate it, certain errors or actions could be repeated or compounded before they are discovered and remediated, and communication to the public, regulators, clients and other stakeholders may be inaccurate, any or all of which could further increase the costs and consequences of an information security incident. We could be the subject of legal claims or proceedings related to **information** security incidents, including regulatory investigations and **other legal** actions **, carrying the potential for damages, fines, sanctions or other penalties, injunctive relief requiring costly compliance measures and reputational damage** . Further, the market perception of the effectiveness of our **information** security measures could be harmed, our reputation could suffer and we could lose clients in conjunction with security incidents, each of which could have a negative effect on our business, financial condition and results of operations. A breach of our security also may affect adversely our ability to effect transactions, service our clients, manage our exposure to risk or expand our business. An event that results in the loss of information also may require us to reconstruct lost data or reimburse clients for data and credit monitoring services, which could be costly and have a negative impact on our business and reputation. Although we maintain insurance coverage in the event of information theft, damage, or destruction from cyber ~~breach~~ **- attacks or other**

information security incidents, there can be no assurance ~~2022 ANNUAL REPORT | NORTHERN TRUST CORPORATION 19~~ that liabilities or losses we may incur will be covered under such policies ~~or~~ **,** that the amount of insurance will be adequate to cover such losses **, that insurance will continue to be available to us on economically reasonable terms, or at all, or that our insurer will not deny coverage as to any future claim** . Further, even if not directed at us, attacks on financial or other institutions important to the overall functioning of the financial system or on our counterparties could affect, directly or indirectly, aspects of our business. In our asset servicing, investment management, fiduciary administration and other business activities, we effect or process transactions for clients and for ourselves that involve very large amounts of money. Failure to manage or mitigate operational risks properly can have adverse consequences, and increased volatility in the financial markets may increase the magnitude of resulting losses. Further, remote working and other modified business practices initiated in **recent years** ~~response to the COVID- 19 pandemic~~ , combined with the increasing sophistication and frequency of potential cyber **- attacks and other information security** incidents, have heightened our operational and execution risk. Given the high volume of transactions we process, errors that affect earnings may be repeated or compounded before they are discovered and corrected. Our businesses depend on information technology infrastructure, both internal and external, to record and process, among other things, a large volume of increasingly complex transactions and other data, in many currencies, on a daily basis, across numerous and diverse markets and jurisdictions. Due to our dependence on technology and the important role it plays in our business operations, combined with the increasing sophistication and frequency of potential cyber **- attacks and other information security** incidents, we must constantly improve and update our information technology infrastructure. Upgrading, replacing, and modernizing these systems can require significant resources and often involves implementation, integration and security risks that could cause financial, reputational, and operational harm. In ~~some cases~~ **recent years** , ~~the~~ **there** ~~COVID- 19 pandemic~~ has **been an** ~~accelerated~~ **acceleration in** the transition from traditional to digital financial services and heightened customer expectations in this area, and this transition may require us to invest greater resources in technological advancements. Failure to ensure adequate review and consideration of critical business and regulatory issues prior to and during the introduction and deployment of key technological systems **or networks** or failure to align operational capabilities adequately with evolving client commitments and expectations may have a negative impact on our results of operations. The failure to respond properly to, and invest in, changes and advancements in technology and / or to compete for and retain employees with the necessary technical skills and expertise could limit our ability to attract and retain clients, prevent us from offering products and services comparable to those offered by our competitors, inhibit our ability to meet regulatory requirements or otherwise have a material adverse effect on our operations. **2023 ANNUAL REPORT | NORTHERN TRUST CORPORATION 21** We regularly review and update our internal controls, disclosure controls and procedures, and corporate governance policies and procedures. Any system of controls, however well designed and operated, is based in part on certain assumptions and can provide only reasonable, not absolute, assurances that the objectives of the system will be met. Any failure or circumvention of our controls and procedures or failure to comply with regulations related to controls and procedures could have a material adverse effect on our business, financial condition and results of operations. If we identify material weaknesses in our internal control over financial reporting or are otherwise required to restate our financial statements, we could be required to implement expensive and time- consuming remedial measures and could lose investor confidence in the accuracy and completeness of our financial reports. In addition, there are risks that individuals, either employees or contractors, consciously circumvent established control mechanisms by, for example, exceeding trading or investment management limitations, or committing fraud. Third- party vendors provide key components of our business operations such as data processing, recording and monitoring transactions, online banking interfaces and services, and network access. Our use of third- party vendors exposes us to the risk that such vendors (or their vendors) may not comply with their servicing and other contractual obligations, including with respect to indemnification and information security, and to the risk that we may not satisfy applicable regulatory responsibilities regarding the management and oversight of third parties and outsourcing providers. While we have established risk management processes and continuity plans, any disruptions in service from a key vendor for any reason or poor performance of services **have in the past and** could **in the future** have a negative effect on our ability to deliver products and services to our clients and conduct our business. Replacing these third- party vendors or performing the tasks they perform for ourselves **has in the past and** could **in the future** create significant delay and expense. ~~20 2022 ANNUAL REPORT | NORTHERN TRUST CORPORATION~~ In conducting our U. S. and non- U. S. business, we are subject to risks of loss **and adverse economic impacts** from various unfavorable political, economic, legal, public health, or other developments, including social or political instability, changes in governmental policies or policies of central banks, expropriation, nationalization, confiscation of assets, price controls, capital controls, exchange controls, unfavorable tax ~~rates -~~ **rate** ~~and~~ **changes,** tax court rulings and changes in laws and regulations. Less mature and often less regulated business and investment environments heighten these risks in various emerging markets. Our non- U. S. operations accounted for ~~34~~ **32** % of our revenue in ~~2022~~ **2023** . Our non- U. S. businesses are subject to extensive regulation by various non- U. S. regulators, including governments, securities exchanges, central banks and other regulatory bodies in the jurisdictions in which those businesses operate. In many countries, the laws and regulations applicable to the financial services industry are uncertain and evolving and may be applied with extra scrutiny to foreign companies. Moreover, the regulatory and supervisory standards and expectations in one jurisdiction may not conform with standards or expectations in other jurisdictions. Even within a particular jurisdiction, the standards and expectations of multiple supervisory agencies exercising authority over our affairs may not be harmonized fully. Accordingly, it may be difficult for us to determine the exact requirements of local laws in every market or manage our relationships with multiple regulators in various jurisdictions. Our inability to remain in compliance with local laws in a particular market and manage our relationships with regulators could have an adverse effect not only on our businesses in that market but also on our reputation generally. The failure to mitigate properly such risks or the failure of our operating infrastructure to support such international activities could result in operational failures and regulatory fines or sanctions, which could affect our business and results of operations adversely. We actively strive to optimize our geographic footprint. This optimization may occur by establishing operations in lower- cost locations or by outsourcing to third- party vendors in various jurisdictions. These efforts expose us to the risk that we may not maintain service quality, control or effective management within these operations. In addition, we are exposed to the relevant macroeconomic, political, public health, and similar risks generally involved in doing business in those jurisdictions. The increased elements of risk that arise from conducting certain operating processes in some jurisdictions could lead to an increase in reputational risk. During periods of transition, greater operational risk and client concern exist with respect to maintaining a high level of service delivery. In addition, we are subject in our global operations to rules and regulations relating to corrupt and illegal payments, money laundering, and laws ~~relating to~~ **that prohibit us from** doing business with certain individuals, groups and countries, such as the U. S. Foreign Corrupt Practices Act, the USA PATRIOT Act, the UK Bribery Act, and economic sanctions and embargo programs administered by the U. S. Office of Foreign Assets Control and similar agencies worldwide. While we have invested and continue to invest significant resources in training and in compliance monitoring, the geographic diversity of our operations, employees, clients and customers, as well as the vendors and other third parties with whom we deal, presents the risk that we may be found in violation of such rules, regulations, laws or programs and any such violation could subject us to significant penalties or affect our reputation adversely. **22 2023 ANNUAL REPORT | NORTHERN TRUST CORPORATION** Our success in controlling the costs and expenses of our business operations also impacts operating results. Through various parts of our business strategy, we aim to produce efficiencies in operations that help reduce and control costs and expenses, including the costs of losses associated with operating risks attributable to servicing and managing financial assets. ~~Recently~~ **In recent years** , increased expenses have affected ~~, —~~ and a failure to control our costs and expenses in the future **, whether** as a result of ~~an overall inflationary~~ --- **inflation** ~~environment~~ or otherwise **,** could affect ~~, —~~ our earnings negatively. Pandemics, natural disasters, global climate change, acts of terrorism, geopolitical tensions, global conflicts (including the continuing military ~~conflict~~ **conflicts** involving Ukraine and the Russian Federation **and Israel and Hamas**) or other similar events **, as well as government actions or other restrictions in connection with such events,** have had in the past, or may in the future have, a negative impact on our business and operations. While we have in place business continuity plans, such events may still damage our facilities, disrupt or delay the normal operations of our business (including communications and technology), result in harm to or cause travel limitations on our employees, impose significant compliance costs with new financial and economic sanctions regimes, and have a similar impact on our clients, suppliers, third- party vendors and counterparties. For example, in some jurisdictions such as the Russian Federation, local market restrictions, laws, sanctions programs or government intervention inhibit our clients' and our ability to access or transfer cash or securities held for clients through subcustodians and clearing agencies. When such client deposit liabilities are on our consolidated balance sheet, we maintain a corresponding amount of cash on deposit with the subcustodian or clearing agency, which increases our credit exposure to that entity and can accumulate over time based upon distributions on, or other activities related to, our clients' assets. If the subcustodian or clearing agency were to become insolvent in circumstances not involving expropriation of assets or other sovereign risk events and / or factors or events beyond our reasonable control that excuse performance under force majeure or other contractual provisions, the risk of loss on such ~~2022 ANNUAL REPORT | NORTHERN TRUST CORPORATION 21~~ cash on deposit may potentially be incurred by us. As of December 31, ~~2022~~ **2023** , we held cash that accumulates in relation to Russian securities with our subcustodian and / or clearing agencies for the benefit of certain clients in our Asset Servicing business which are subject to restrictions ~~which~~ **that** inhibit our ability to access or transfer such deposits, and which amount is expected to increase significantly over time as long as the sanctions and other relevant restrictions remain in effect. **Our subcustodian is also a subsidiary of a large, global financial institution with whom we have other credit exposures, which may limit the financial relationship we may have with this counterparty and has in the past made, and may in the future make, compliance with specific U. S. regulatory single counterparty credit limits more challenging.** The foregoing or similar events also could impact us negatively to the extent that they result in reduced capital markets activity, lower asset price levels, or disruptions in general economic activity in the ~~United States~~ **U. S.** or abroad, or in financial market settlement functions. In addition, these or similar events may impact economic growth negatively, which could have an adverse effect on our business and operations, and may have other adverse effects on us in ways that we are unable to predict. Please see " Strategic Risks " in this " Risk Factors " section for further description of risks associated with climate change. We evaluate extensions of credit before we make them and provide for credit risks based on our assessment of the credit losses inherent in our loan portfolio, including undrawn credit commitments. This process requires us to make difficult and complex judgments **, including forecasts of economic conditions through the life of these credit exposures** . Challenges associated with our credit risk assessments include identifying the proper factors to be used in assessments and accurately estimating the impacts of those factors. Allowances that prove to be inadequate may require us to realize increased provisions for credit losses or write down the value of certain assets on our balance sheet, which result in losses and / or increased provisions for credit losses and in turn would affect earnings negatively. Credit risk levels and our earnings can be affected by market volatility and / or weakness in the economy in general and in the particular locales in which we extend credit, a deterioration in credit quality, or a reduced demand for credit. Adverse changes in the financial performance or condition of our borrowers resulting from market volatility **, elevated interest rates,** and / or weakened economic conditions could impact the borrowers' abilities to repay outstanding loans, which could in turn impact our financial condition and results of operations negatively. **2023 ANNUAL REPORT | NORTHERN TRUST CORPORATION 23** The financial markets are characterized by extensive interconnections among financial institutions, including banks, broker ~~/~~ **-** dealers, collective investment funds and insurance companies. As a result of these interconnections, we and many of our clients have counterparty exposure to other financial institutions. This counterparty exposure presents risks to us and to our clients because the failure or perceived weakness of any of our counterparties has the potential to expose us to risk of loss. Instability in the financial markets **, or in certain countries where these counterparties are domiciled,** has resulted historically in some financial institutions becoming less creditworthy. During such periods of instability, we are exposed to increased counterparty risks, both as principal and in our capacity as agent for our clients. Changes in market perception of the financial strength of particular financial institutions can occur rapidly, are often based upon a variety of factors and can be difficult to predict. In addition, the criteria for and manner of governmental support of financial institutions and other economically important sectors remain uncertain. Further, the consolidation of financial services firms and the failures of other financial institutions has in the past increased, and may in the future increase, the concentration of our counterparty risk. These risks are heightened by the fact that our operating model relies on the use of unaffiliated sub- custodians to a greater degree than certain of our competitors that have banking operations in more jurisdictions than we do. We are not able to mitigate all of our and our clients' counterparty credit risk. If a significant individual counterparty defaults on an obligation to us, we could incur financial losses that have a material and adverse effect on our business, financial condition and results of operations. ~~Global regulators have taken steps to discontinue the publication and use of interbank offered rates (each, an IBOR), encourage the development and use of alternative reference rates, and examine the progress regulated entities such as Northern Trust are making to transition from IBORs to alternative reference rates. Publication of 1- week and 2- month USD LIBOR ceased as of December 31, 2021, and publication of the remaining USD LIBOR tenors are expected to continue until June 30, 2023. USD LIBOR historically has been a widely used interest rate benchmark and the reference rate for our floating- rate funding, certain of the products that we own, various lending and securities transactions in which we are involved, and certain of the derivatives that we use to manage our or our clients' risk. Some regulators have prohibited the use of any LIBOR benchmarks in new contracts and have required that regulated entities transition existing contracts to another benchmark prior to June 30, 2023. Although the setting of such LIBOR benchmarks may continue to be available, such prohibitions and requirements or any other change in the availability or 22 2022 ANNUAL REPORT | NORTHERN TRUST CORPORATION calculation of LIBOR or other interest rate benchmarks may affect adversely the cost or availability of floating- rate funding; the yield on loans or securities held by us; the amounts received and paid on derivative instruments we have entered into; the value of loans, securities, or derivative instruments held by us or our clients, which, in the case of assets held by our clients, could also negatively impact the amount of fees we earn in relation to such assets; the trading market for securities based on LIBOR or other benchmarks; the terms of new loans being made using different or modified reference rates; or our ability to use derivative instruments to manage risk effectively. Various regulators, industry bodies and other market participants in the United States and other countries have developed and continue to refine alternative rate benchmarks for various financial products. While there is no consensus on what rate or rates may become accepted by market participants as alternatives to LIBOR for new contracts after LIBOR publication ceases, a group of large banks and the Alternative Reference Rate Committee (ARRC) identified, and the Federal Reserve Bank of New York in May 2018 started to publish, the Secured Overnight Finance Rate (SOFR) as its preferred alternative to LIBOR. The Adjustable Interest Rate (LIBOR) Act (the LIBOR Act) signed into law in March 2022, provides for the use of interest rates based on SOFR in certain contracts currently based on LIBOR and a safe harbor from liability for utilizing SOFR- based interest rates as a replacement for LIBOR. In December 2022, the Federal Reserve Board adopted a final rule implementing the LIBOR Act by identifying benchmark rates based on SOFR that will replace LIBOR in certain financial contracts after June 30, 2023. SOFR has different characteristics than LIBOR and may demonstrate less predictable behavior over time and across different monetary, market, and economic environments; therefore, it is unclear the extent to which SOFR will become a widely accepted replacement for LIBOR. We are working to facilitate an orderly transition from USD LIBOR to alternative interest rate benchmarks for us and our clients and, in accordance with guidance from U. S. regulators, including the Federal Reserve Board, we stopped offering USD LIBOR in new contracts and began offering SOFR as an alternative to USD LIBOR in 2021. While some existing USD LIBOR loans will mature or be prepaid, a portion of our loans will remain and potentially require us to name a replacement index before June 30, 2023, the date USD LIBOR ceases. We are currently in the process of evaluating all such transitions. The language in our USD LIBOR- based contracts and financial instruments has developed over time and may have various events that trigger when a successor rate to the designated rate would be selected. If a trigger is satisfied, contracts and financial instruments may give a party discretion to determine the substitute index or indices for the calculation of interest rates to be selected. Additionally, the transition to alternative rates may change our market risk profile, requiring changes to risk and pricing models. While some instruments may contemplate a scenario where LIBOR is no longer available by providing an alternative rate setting methodology, not all instruments may have such provisions and there is significant uncertainty regarding the effectiveness of any such alternative methodologies. There continues to be uncertainty regarding the effect that these developments, any discontinuance, modification or other reforms to LIBOR or any other interest rate benchmarks, or the establishment of alternative reference rates may have on LIBOR or other interest rate benchmarks. Further, the transition away from the use of LIBOR and the adoption of alternative interest rate benchmarks, and uncertainty related to any such transition or adoption, has caused, and may in the future cause, us to recognize additional costs. It may also cause us to experience operational disruptions or result in client disputes or litigation, which may negatively impact our business, financial condition or results of operations.~~ Liquidity is essential for the operation of our business. Market conditions, unforeseen outflows of funds or other events could have a negative effect on our level or cost of funding, affecting our ongoing ability to accommodate liability maturities and deposit withdrawals, meet contractual obligations, and fund new business transactions at a reasonable cost and in a timely manner. If our access to stable and low- cost sources of funding, such as customer deposits, is reduced, we may need to use alternative funding, which could be more expensive or of limited availability. Further evolution in the regulatory requirements relating to liquidity and risk management also may impact us negatively. Additional regulations may impose more stringent liquidity requirements for large financial institutions, including the Corporation and the Bank. Given the overlap and complex interactions of these regulations with other regulatory changes, the full impact of the adopted and proposed regulations remains uncertain until their full implementation. In addition, a significant portion of our business involves providing certain services to large, complex clients, which, by their nature, require substantial liquidity. Our failure to manage successfully the liquidity and balance sheet issues attendant to this portion of our business may have a negative impact on our ability to meet client needs and grow. **We also manage investment products that, while not obligations of ours, may be exposed to liquidity risks. These products, such as money market and other short- term investments provide clients a right to the return of cash or assets on limited notice. If clients demand a return of their cash or assets, particularly on limited notice, and these investment products do not have the liquidity to support those demands, we could be forced to sell investment securities held by these investment products at unfavorable prices potentially damaging our reputation with the investment community.** For more information on regulations and other regulatory changes relating to liquidity, see " Supervision and Regulation — Liquidity Standards " in Item 1, " Business. " Any substantial, unexpected or prolonged changes in the level or cost of liquidity could affect our business adversely. ~~2022 ANNUAL REPORT | NORTHERN TRUST CORPORATION 23~~ The Corporation is a legal entity separate and distinct from the Bank and the Corporation' s other subsidiaries. The Corporation relies in large part on dividends paid to it by the Bank to meet its obligations and to pay dividends to stockholders of the Corporation. There are various legal limitations on the extent to which the Bank and the Corporation' s other subsidiaries can supply funds to the Corporation by dividend or otherwise. Dividend payments by the Bank to the Corporation in the future will require continued generation of earnings by the Bank and could require regulatory approval under certain circumstances. For more information on dividend restrictions, see " Supervision and Regulation — Payment of Dividends " in Item 1, " Business. " We may need to raise additional capital to provide sufficient resources to meet our business needs and commitments, to accommodate the transaction and cash management needs of our clients, to maintain our credit ratings in response to regulatory changes, including capital rules, or for other purposes. However, our ability to access the capital markets, if needed, will depend on a number of factors, including the state of the financial markets. Rising interest rates, disruptions in financial markets, negative perceptions of our business or our financial strength, or other factors may impact our ability to raise additional capital, if needed, on terms acceptable to us. **For example, in the event of future turmoil in the banking 24 2023 ANNUAL REPORT | NORTHERN TRUST CORPORATION industry or other idiosyncratic events, there is no guarantee that the U. S. government will invoke the systemic risk exception, create additional liquidity programs, or take any other action to stabilize the banking industry or provide liquidity.** Any diminished ability **to access short- term funding or capital markets** to raise additional capital, if needed, could subject us to liability, restrict our ability to grow, require us to take actions that would affect our earnings negatively or otherwise affect our business and our ability to implement our business plan, capital plan and strategic goals adversely. Rating agencies publish credit ratings and outlooks on our creditworthiness and that of our obligations or securities, including long- term debt, short- term borrowings, preferred stock and other securities. Our credit ratings are subject to ongoing review by the rating agencies and thus may change from time to time based on **the agencies' evaluation of** a number of factors, including our ~~own~~ financial strength, performance, prospects and operations as well as factors not under our control, such as rating- agency- specific criteria or frameworks for our industry or certain security types, which are subject to revision from time to time, and conditions affecting the financial services industry generally. Downgrades in our credit ratings may affect our borrowing costs, our capital costs and our ability to raise capital and, in turn, our liquidity adversely. A failure to maintain an acceptable credit rating also may preclude us from being competitive in certain products. Additionally, our counterparties, as well as our clients, rely on our financial strength and stability and evaluate the risks of doing business with us. If we experience diminished financial strength or stability, actual or perceived, a decline in our stock price or a reduced credit rating, our counterparties may be less willing to enter into transactions, secured or unsecured, with us, our clients may reduce or place limits on the level of services we provide them or seek other service providers, or our prospective clients may select other service providers, all of which may have other adverse effects on our business. The risk that we may be perceived as less creditworthy relative to other market participants is higher in a market environment in which the consolidation, and in some instances failure, of financial institutions, including major global financial institutions, could result in a smaller number of larger counterparties and competitors. If our counterparties perceive us to be a less viable counterparty, our ability to enter into financial transactions on terms acceptable to us or our clients, on our or our clients' behalf, will be compromised materially. If our clients reduce their deposits with us or select other service providers for all or a portion of the services we provide to them, our revenues will decrease accordingly. Virtually every aspect of our business around the world is regulated, generally by domestic and foreign governmental agencies that have broad supervisory powers and the ability to impose sanctions. These regulations cover a variety of matters, including prohibited activities, required capital levels, resolution planning, human trafficking and modern slavery, and **data** privacy and **security** ~~data protection~~. Some of these requirements are directed specifically at protecting depositors of the Bank, the ~~federal deposit insurance fund~~ **U. S. DIF** and the banking system as a whole, not our stockholders or other security holders. Regulatory violations or the failure to meet formal or informal commitments made to regulators could generate penalties, require corrective actions that increase costs of conducting business, result in limitations on our ability to conduct business, restrict our ability to expand or impact our reputation adversely. Failure to obtain necessary approvals from regulatory agencies, whether formal or based upon supervisory expectations, on a timely basis could affect proposed business opportunities and results of operations adversely. Similarly, changes in laws or failure to comply with new requirements or with future changes in laws or regulations may impact our results of operations and financial condition negatively. ~~24 outside the U.S.~~ Various regulatory bodies have demonstrated heightened **enforcement** scrutiny of financial institutions through many regulatory initiatives.These initiatives have increased compliance costs and regulatory risks and may lead to financial and reputational damage in the event of a compliance violation ~~,even if the failure to comply was inadvertent or reflects a difference in interpretation~~. ~~We~~ **While we** have programs in place,including policies,training and various forms of monitoring,designed to ensure compliance with legislative and regulatory requirements **,** ~~.We cannot provide assurance that~~ these programs and policies **may not always protect us from conduct by individual employees.Governments and regulatory agencies may take further actions to change significantly the way financial institutions** are **regulated,either through new legislation,new regulations,new applications of existing regulations** or ~~will be adequate~~ **a combination of all**

of these methods.We cannot currently predict the impact,if any,of these changes to ~~identify and manage internal and external compliance risks.For example,~~ our business ~~may be adversely impacted by actual or alleged misconduct by an employee or other negative outcomes caused by human error~~ . ~~Changes to statutes 2022~~ **2023** ANNUAL REPORT | NORTHERN TRUST CORPORATION **25** Various regulatory bodies have demonstrated heightened enforcement...... of these changes to our business. Additionally, governments and regulators may take actions that increase intervention in the normal operation of our businesses and the businesses of our competitors in the financial services industry, and these likely would involve additional legislative and regulatory requirements imposed on banks and other financial services companies. Any such actions could increase compliance costs and regulatory risks, lead to financial and reputational damage in the event of a violation, affect our ability to compete successfully, and also may impact the nature and level of competition in the industry in unpredictable ways. The full scope and impact of possible legislative or regulatory changes and the extent of regulatory activity is uncertain and difficult to predict. For example, we are unable to predict what, if any, changes to financial services laws and regulations applicable to the financial services industry may be enacted by the U. S. Congress and what the impact of any such changes will be upon our business, financial condition, and results of operations. **The evolving regulatory and supervisory environment and uncertainty about the timing and scope of future laws, regulations and policies may contribute to decisions we may make to suspend, reduce or withdraw from existing businesses, activities or initiatives, which may result in potential lost revenue or significant restructuring or related costs or exposures. We also face the risk of becoming subject to new or more stringent requirements in connection with the introduction of new regulations or modification of existing regulations, which could require us to hold more capital or liquidity or have other adverse effects on our businesses or profitability. For example, proposed changes to applicable capital and liquidity requirements, such as the Basel III Endgame Proposal and the long- term debt proposal, could result in increased expenses or cost of funding, which could negatively affect our financial results or our ability to pay dividends and engage in share repurchases. For more information concerning our legal and regulatory obligations with respect to Basel III and long-term debt requirements, see " Supervision and Regulation " in Item 1, " Business. " In addition, regulatory responses in connection with severe market downturns or unforeseen stress events may alter or disrupt our planned future strategies and actions. Adverse developments affecting the overall strength and soundness of other financial institutions, the financial services industry as a whole and the general economic climate and the U. S. Treasury market could have a negative impact on perceptions about the strength and soundness of our business even if we are not subject to the same adverse developments. For example, during 2023, the FDIC took control and was appointed receiver of Silicon Valley Bank, Signature Bank, and First Republic Bank. The failure of other banks and financial institutions and the measures taken by governments and regulators in response to these events could adversely impact our business, financial condition and results of operations. We are subject to complex and evolving laws, regulations, rules, standards and contractual obligations governing data privacy and security, which may differ and potentially conflict, in various jurisdictions, and any failure to comply with these laws, regulations, rules, standards and contractual obligations could expose us to liability and / or reputational damage. Regulators globally are introducing the potential for greater monetary fines on institutions that suffer from breaches leading to the loss, misappropriation or unauthorized access, use or disclosure of personal, confidential, proprietary or sensitive information. Most U. S. states, the EU and other non-U. S. jurisdictions also have adopted their own statutes and / or regulations concerning data privacy and security and notification of data breaches. These and other changes in laws or regulations associated with the enhanced protection of personal and other types of information could greatly increase compliance costs, the size of potential fines related to the protection of such information and reporting obligations in the case of cyber- attacks or other information security incidents. Compliance with these laws, regulations, rules and standards may require us to change and continuously update our policies, procedures and technology controls for information security, which could, among other things, make us more vulnerable to operational failures and to monetary penalties for breach of such laws, regulations, rules and standards. In the U. S., there are numerous federal, state and local data privacy and security laws and regulations governing the collection, sharing, use, retention, disclosure, security, storage, transfer and other processing of personal information. At the federal level, we are subject to, among other laws and regulations, the rules and regulations promulgated under the authority of the Federal Trade Commission and the Gramm- Leach- Bliley Act.** Moreover, the ~~current~~ U. S. **Congress** ~~presidential administration~~ has ~~made~~ **recently considered** , and is **currently considering** ~~expected to make further~~ , ~~changes in the leadership~~ **various proposals for more comprehensive data privacy** and **security legislation, to** ~~senior staffs of the federal banking agencies~~ which **we may be subject if enacted. At the state level, we** are ~~likely~~ **subject** to ~~impact~~ **laws and regulations such as the CCPA. Numerous** ~~the~~ **other states also have enacted, or are in the process of enacting or considering, comprehensive state- level data privacy and security laws and regulations that share similarities with the CCPA. Moreover, laws in all 50 U. S. states require businesses to provide notice under certain circumstances to consumers whose personal information has been disclosed as a result of a data breach. At the international level, we are subject to the GDPR and UK GDPR and similar laws are in effect or being considered in other jurisdictions in which we operate across the globe. While the GDPR and the UK GDPR** ~~rulemaking~~ ---- **remain substantially similar for the time being** , ~~supervision~~ **the UK government has announced that it would seek to chart its own path on data protection and reform its relevant laws** , ~~examination~~ **including in ways that may differ from the GDPR, to** ~~and~~ - **an** ~~enforcement priorities~~ **extent. Legal developments in the EEA and the UK also have created complexity and uncertainty regarding processing and transfers of 26 2023 ANNUAL REPORT | NORTHERN TRUST CORPORATION personal data from the EEA and the UK to the U. S. and other so- called third countries outside the EEA and the UK that have not been determined by the relevant data protection authorities to provide an adequate level of protection for privacy rights. Importantly, significant monetary fines have been imposed since the introduction of such stringent privacy laws in the EU and the UK**

and regulatory expectations on governance and accountability in the protection of privacy and data continue to increase. Further, while we strive to publish and prominently display privacy notices and policies ~~of such agencies~~ **that are accurate** , **comprehensive** ~~the potential impacts of which~~ , ~~if any~~ **and compliant with applicable laws, regulations, rules and industry standards** , we cannot ~~predict~~ **ensure that our privacy policies and other statements regarding our practices will be considered sufficient to protect us from claims, proceedings, liability or adverse publicity relating to data privacy and security, considering the fast- evolving regulatory expectations. Although we endeavor to comply** with ~~certainty~~ **our privacy policies, we may** at ~~this~~ **times fail to do so or be alleged to have failed to do so. The publication of our privacy policies and other documentation that provide promises and assurances about data privacy and security can subject us to potential government or legal action if they are found to be deceptive, unfair, or misrepresentative of our actual practices. Any concerns about our data privacy and security practices, even if unfounded, could damage our reputation and adversely affect our business. Any failure or perceived failure by us to comply with our privacy policies, or applicable data privacy and security laws, regulations, rules, standards or contractual obligations, or any compromise of security that results in unauthorized access to, or unauthorized loss, destruction, use, modification, acquisition, disclosure, release or transfer of personal information, may result in requirements to modify or cease certain operations or practices, the expenditure of substantial costs,** time **and other resources, proceedings or actions against us, legal liability, governmental investigations, enforcement actions, claims, fines, judgments, awards, penalties, sanctions and costly litigation (including class actions). Any of the foregoing could harm our reputation, distract our management and technical personnel, increase our costs of doing business, adversely affect the demand for our products and services, and ultimately result in the imposition of liability, any of which could have a material adverse effect on our business, financial condition and results of operations** . Our businesses involve the risk that clients or others may sue us, claiming that we **or third parties for whom they say we are responsible** have failed to perform under a contract or otherwise failed to carry out a duty perceived to be owed to them. Our trust, custody and investment management businesses are particularly subject to this risk. This risk is heightened when we act as a fiduciary for our clients and may be further heightened during periods when credit, equity or other financial markets are deteriorating in value or are particularly volatile, or when clients or investors are experiencing losses. In addition, regulators, tax authorities and courts have increasingly sought to hold financial institutions liable for the misconduct of their clients where such regulators and courts have determined that the financial institution should have detected that the client was engaged in wrongdoing, even though the financial institution had no direct knowledge of the wrongdoing. Claims made or actions brought against us, whether founded or unfounded, may result in **lawsuits,** injunctions, settlements, damages, fines or penalties, which could have a material adverse effect on our financial condition or results of operations or require changes to our business. Even if we defend ourselves successfully, the cost of litigation is often substantial, and public reports regarding claims made against us may cause damage to our reputation among existing and prospective clients or negatively impact the confidence of counterparties, rating agencies and stockholders, consequently affecting our earnings negatively. In the ordinary course of our business, we are subject to various governmental enforcement inquiries, supervisory examinations, investigations and subpoenas. These may be directed generally to participants in the businesses in which we are involved or may be directed specifically at us. In conjunction with both supervisory and enforcement matters, we may face limits on our ability to conduct or expand our business, be required to implement corrective actions that increase the costs of conducting business, or become subject to civil or criminal penalties or other remedial sanctions, any of which could result in reputational damage or otherwise have an adverse impact on us. ~~For example,~~ **The complexity of** the ~~current~~ **federal and state regulatory, supervisory and enforcement regimes in the** U. S. ~~presidential administration~~ , ~~or future administrations, could~~ **coupled** ~~support~~ **with the global scope of our operations** ~~an~~ **and** ~~enhanced~~ **the increased aggressiveness of the tax and** regulatory **environment worldwide, also means** ~~enforcement agenda or propose new regulations~~ that ~~impose greater costs on~~ **a single event may give risk to a large number of overlapping investigations and regulatory proceedings, either by multiple agencies in the U. S. or by multiple regulators and other governmental entities or tax authorities in different jurisdictions. Responding to inquiries, investigations, and proceedings, regardless of the outcome of the matter, is time consuming and expensive and can divert the attention of our senior management from our business. The outcome of such proceedings may be difficult to predict or estimate until late in the proceedings, which may last a number of years. The number of regulatory and governmental investigations and proceedings, as well as the amount of penalties and fines sought, has remained elevated for many firms in the** financial services ~~companies~~ **industry. The Corporation and other financial 2023 ANNUAL REPORT | NORTHERN TRUST CORPORATION 27 institutions have become subject to increased scrutiny, more intense supervision and regulation, and a higher risk of enforcement action, which we expect to continue** . Any such heightened enforcement activity or new regulations could have a material adverse effect on our business, financial condition and results of operations. We estimate our potential liability for pending and threatened claims and record reserves when appropriate pursuant to generally accepted accounting principles (GAAP). The process is inherently subject to risk, including the risks that a judge or jury could decide a case contrary to our evaluation of the law or the facts or that a court could change or modify existing law on a particular issue important to the case. Our earnings will be adversely affected if our reserves are not adequate. ~~2022 ANNUAL REPORT | NORTHERN TRUST CORPORATION 25~~ While **regulatory standards remain largely aligned following** the UK' s withdrawal from the EU, commonly referred to as " Brexit, " **it is possible that future divergence may occur between the UK and EU** ~~officially became effective on December 31, 2020, certain items remain to be negotiated~~ ; therefore, the final impact remains uncertain. In December 2020, the UK and the EU agreed on a trade and cooperation agreement that entered into force on May 1, 2021. While the trade and cooperation agreement covers the general objectives and framework of the relationship between the UK and the EU, it generally does not address the regulation of financial services. Instead, in March 2021, the UK and the EU agreed upon a framework for voluntary regulatory cooperation and dialogue on financial services issues between the parties in a memorandum of understanding, which

was ~~is expected to be~~ signed **on June 27** ~~after certain formal steps are completed~~ , ~~although this~~ **2023. Since the UK' s withdrawal from the EU on December 31, 2020, the UK government** has **embarked** ~~not yet occurred. Consequently, the ultimate impact of Brexit~~ on **a program of significant regulatory reform. In particular,** the ~~Corporation~~ **recently enacted Financial Services** and ~~the Bank remains uncertain and~~ **Markets Act 2023 contains provisions that** will **eventually repeal all** ~~depend on the terms of the post- Brexit relationships that remain to be negotiated between the UK and other~~ EU **rules and regulations relating to** ~~nations, particularly in the area of~~ financial services **that were incorporated into UK law following** ~~. We have incurred, and may in the future continue to incur, costs associated with~~ Brexit **. The** ~~planning measures, while unforeseen political, regulatory, or other developments related to Brexit, or operational issues associated with any organizational restructuring related thereto, may result in additional costs and disruption to our~~ UK **government** and **the UK** ~~EU businesses. A failure to agree to a sustainable and practical~~ financial services regulatory **authorities has been consulting on a number of measures that will replace the current EU- based rules and** ~~relationship~~ --- **regulations** ~~between~~ **with measures that reflect the particular needs of** the UK **market** and **policy objectives of** the **UK' s regulatory authorities. Consequently, over time it is likely that the rules and regulations relating to financial services will diverge, which may result in additional compliance costs for our UK and** EU ~~, whether on the basis of equivalence, mutual recognition or otherwise, could harm our business~~ **businesses** ~~, financial condition and results of operations. Any further exits from the EU, or the possibility of such exits, would likely cause additional market disruption globally and introduce new legal and regulatory uncertainties~~ . If we fail to comply with legal standards, we could incur liability to our clients or lose clients, which could affect our earnings negatively. Managing or servicing assets with reasonable prudence in accordance with the terms of governing documents and applicable laws is an important part of our business. Failure to comply with the terms of governing documents and applicable laws, manage adequately the risks or manage appropriately the differing interests often involved in the exercise of fiduciary responsibilities may subject us to liability or cause client dissatisfaction, which may impact negatively our earnings and growth. Our success depends, in large part, on our ability to attract new employees, retain and motivate our existing employees, and continue to compensate our employees competitively. Competition for the best employees in most activities in which we engage can be intense, and there can be no assurance that we will be successful in our efforts to recruit and retain necessary personnel. Factors that affect our ability to attract and retain talented and diverse employees include our compensation and benefits programs, our profitability and our reputation for rewarding and promoting qualified employees. Our ability to attract and retain key executives and other employees may be hindered as a result of existing and potential regulations applicable to incentive compensation and other aspects of our compensation programs. These **laws and** regulations may not apply ~~to~~ **in the** ~~some~~ **same manner** ~~of our competitors and~~ to **all financial institutions and other companies, which therefore may subject us to more restrictions than** other institutions **and companies** with which we compete for talent **and may also hinder our ability to compete for talent with other industries** . In addition, our current or future approach to in- office and remote work arrangements may not meet the needs or expectations of our current or prospective employees, may not be perceived as favorable as compared to the arrangements offered by competitors and may not be conducive to a collaborative working environment, which could adversely affect our ability to attract, retain and motivate employees. The unexpected loss of services of necessary personnel, both in businesses and corporate functions, could have a material adverse impact on our business because of their skills ~~,~~ **;** knowledge of our markets, operations and clients ~~,~~ **;** years of industry experience **;** and, in some cases, the difficulty of promptly finding qualified replacement personnel. Similarly, the loss of necessary employees, either individually or as a group, could affect our clients' perception of our abilities adversely. **A** ~~The current~~ competitive labor market may also have the effect of heightening many of these risks. ~~26~~ **28** ~~2022~~ **2023** ANNUAL REPORT | NORTHERN TRUST CORPORATION Risks related to climate change may impact...... various jurisdictions in which we operate. Our growth depends upon successful, consistent development and execution of our business strategies. A failure to develop and execute these strategies may impact growth negatively. A failure to grow organically or to integrate successfully an acquisition could have an adverse effect on our business. The challenges arising from ~~generating organic growth or~~ the integration of an acquired business may include preserving valuable relationships with employees, clients, suppliers and other business partners, delivering enhanced products and services, as well as combining accounting, data processing and internal control systems. To the extent we enter into transactions to acquire complementary businesses and / or technologies, we may not achieve the expected benefits of such transactions, which could result in increased costs, lowered revenues, ineffective deployment of capital, regulatory concerns, exit costs or diminished competitive position or reputation. These risks may be increased if the acquired company operates internationally or in a geographic location where we do not already have significant business operations. Execution of our business strategies also may require certain regulatory approvals or consents, which may include approvals of the Federal Reserve Board and other domestic and non- U. S. regulatory authorities. These regulatory authorities have the ability to impose conditions on the activities or transactions contemplated by our business strategies which may impact negatively our ability to realize fully the expected benefits of certain opportunities. Further, acquisitions we announce may not be completed, or completed in the time frame anticipated, if we do not receive the required regulatory approvals, if regulatory approvals are significantly delayed or if other closing conditions are not satisfied. ~~2022 ANNUAL REPORT | NORTHERN TRUST CORPORATION 27~~ We are subject to intense competition in all aspects of our businesses, which could have a negative effect on our ability to maintain satisfactory prices and grow our earnings. We provide a broad range of financial products and services in highly competitive markets. We compete against large, well- capitalized, and geographically diverse companies that are capable of offering a wide array of financial products and services at competitive prices. In certain businesses, such as foreign exchange trading, electronic networks present a competitive challenge. Additionally, technological advances and the growth of internet- based commerce have made it possible for other types of institutions to offer a variety of products and services competitive with certain areas of our business. Many of these nontraditional service providers have fewer regulatory constraints and some have lower cost structures. The same may be said for competitors based in non- U. S. jurisdictions, where legal and regulatory environments may be more favorable than those applicable to the Corporation and the Bank as U. S.- domiciled financial institutions. These competitive pressures may have a negative effect on our earnings and ability to grow. Pricing pressures, as a result of the willingness of competitors to offer comparable or improved products or services at a lower price, also may result in a reduction in the price we can charge for our products and services, which could have, and in some cases has had, a negative effect on our ability to maintain or increase our profitability. ~~The~~ **Our ability to compete effectively, to attract and retain clients and employees, and to grow our business is dependent on maintaining our reputation. Damage to our reputation can therefore cause significant harm to our business and prospects, and can arise from various sources, including, among others, the** failure or perceived failure to meet or appropriately address client expectations or fiduciary or other obligations ~~,~~ **;** operational failures ~~,~~ **;** legal and regulatory requirements ~~,~~ **;** potential conflicts of interest **; data** ~~, cybersecurity and~~ privacy ~~,~~ **and security;** social and sustainability concerns related to our business activities **;** or any other of the risks discussed in this Item 1A ~~could materially and adversely affect our reputation as well as our ability to attract and retain clients or employees~~ . Additionally, the actual or alleged actions of our affiliates, vendors or other third parties with which we do business, the actual or alleged actions or statements of our employees or adverse publicity could negatively impact our reputation and significantly harm our business prospects. Damage to our reputation for delivery of a high level of service could undermine the confidence of clients and prospects in our ability to serve them and accordingly affect our earnings negatively. Damage to our reputation also could affect the confidence of rating agencies, regulators, stockholders and other parties in a wide range of transactions that are important to our business and the performance of our common stock. Failure to maintain our reputation ultimately could have an adverse effect on our ability to manage our balance sheet or grow our business. Actions by the financial services industry generally or by other members of or individuals in the financial services industry also could impact our reputation negatively or lead to a general loss of confidence in, or impact market perception of, financial institutions that could negatively affect us. **Our reputation may be significantly damaged** ~~Further, whereas negative public opinion once was driven primarily~~ by adverse **publicity or negative information regarding the Corporation and the Bank, whether true or not, that may be published or broadcast by the media or posted on social media, non- mainstream** news **services or** ~~coverage in traditional media, the~~ **other parts of the internet. The** proliferation of social media channels utilized by us and third parties, as well as the personal use of social media by our employees and others, may increase the risk of negative publicity, including through the rapid dissemination of inaccurate, misleading or false information, which could harm our reputation or have other negative consequences **. Furthermore, ESG- related issues have been the subject of increased focus by regulators and stakeholders, including outside the U. S., and particularly in Europe. Any inability to meet applicable requirements or expectations, including those from conflicting U. S. and non- U. S. global expectations, may adversely 2023 ANNUAL REPORT | NORTHERN TRUST CORPORATION 29 impact our reputation. Additionally, various stakeholders have divergent views on ESG- related matters, including in the countries in which we operate and invest, as well as states and localities where we serve public sector clients. In the case of proxy voting, there is the inherent risk of misalignment between the proxy votes we cast on behalf of clients and all of our clients' values and preferences. This divergence increases the risk that any action or lack thereof by us on such matters will be perceived negatively by some stakeholders and could adversely impact our reputation and business** . We need to invest in innovation constantly, and the inability or failure to do so may affect our businesses and earnings negatively. Our success in the competitive environment in which we operate requires consistent investment of capital and human resources in innovation, particularly in light of the current " FinTech " environment, in which the financial services industry is undergoing rapid technological changes and financial institutions are investing significantly in evaluating new technologies, such as artificial intelligence, machine learning, blockchain and other distributed ledger technologies, and developing potentially industry- changing new products, services and industry standards. Our investment is directed at generating new products and services, and adapting existing products and services to the evolving standards and demands of the marketplace. Among other things, investing in innovation helps us maintain a mix of products and services that keeps pace with our competitors and achieve acceptable margins. Our investment also focuses on enhancing the delivery of our products and services in order to compete successfully for new clients or gain additional business from existing clients ~~, and includes investment in technological innovation as well~~ . Effectively identifying gaps or weaknesses in our product offerings ~~also~~ is important to our success. Failure to keep pace with our competition in any of these areas could affect our business opportunities, growth and earnings adversely. There are substantial risks and uncertainties associated with innovation efforts, including an increased risk that new and emerging technologies may expose us to increased **data privacy and** ~~cybersecurity~~ ----- **security** and other information technology threats. We must invest significant time and resources in developing and marketing new products and services, and expected timetables for the introduction and development of new products or services may not be achieved and price and profitability targets may not be met. Further, our revenues and costs may fluctuate because new products and services generally require start- up costs while corresponding revenues take time to develop or may not develop at all. ~~28 2022 ANNUAL REPORT | NORTHERN TRUST CORPORATION~~ The success of our innovation efforts depends, in part, on the successful implementation of new product and service initiatives. Not only must we keep pace with competitors in the development of these new offerings, but we must accurately price them (as well as existing products) on a risk- adjusted basis and deliver them to clients effectively. Our identification of risks arising from new products and services, both in their design and implementation, and effective responses to those identified risks, including pricing, is key to the success of our efforts at innovation and investment in new product and service offerings. A significant portion of our business involves providing certain services to large, complex clients which requires an understanding of the market and legal, regulatory and accounting standards in various jurisdictions. Any failure to understand, address or comply with those standards appropriately could affect our growth prospects or affect our reputation negatively. We identify and manage risk through our business strategies and plans and our risk management practices and controls. If we fail to identify and manage significant risks successfully, we could incur financial loss, suffer damage to our reputation that could restrict our ability to grow or conduct business profitably, or become subject to regulatory penalties or constraints that could limit some of our activities or make them significantly more expensive. In addition, our businesses and the markets in which we operate are continuously evolving. We may fail to understand fully the implications of changes in legal or regulatory requirements, our businesses or the financial markets or fail to enhance our risk framework to address those changes in a timely fashion. If our risk framework is ineffective, either because it fails to keep pace with changes in the financial markets, legal and regulatory requirements, our businesses, our counterparties, clients or service providers or for other reasons, we could incur losses, suffer reputational damage or find ourselves out of compliance with applicable regulatory or contractual mandates or expectations. These risks are magnified as client requirements become more complex and as our increasingly global business requires end- to- end management of operational and other processes across multiple time zones and many inter- related products and services. We may take action or incur expenses in order to maintain client satisfaction or preserve the usefulness of investments or investment vehicles we manage in light of changes in security ratings, liquidity or valuation issues or other developments, even though we are not required to do so by law or the terms of governing instruments. The risk that we will decide to take actions to maintain client satisfaction that result in losses or reduced earnings is greater in periods when credit or equity markets are deteriorating in value or are particularly volatile and liquidity in markets is disrupted. ~~NORTHERN TRUST CORPORATION~~ Risks related to climate change may impact our business,financial condition,and results of operations adversely.The physical risks of climate change include rising average global temperatures,rising sea levels,and an increase in the frequency and severity of extreme weather events ~~and natural disasters~~ .Such developments could disrupt our operations and resilience capabilities,those of our clients,or third parties on which we rely.Further,the consequences of climate change could negatively impact our clients' ability to pay outstanding loans,reduce the value of collateral,or result in insurance shortfalls.Climate change could also result in transition risk arising from changes in ~~policy,~~ regulations ~~,technology,business practices~~ or market preferences toward a ~~lower~~ -- **low** -carbon economy ~~which~~ **.Changes in consumer and / or investor preferences,new legislation,and expanded regulatory requirements related to climate risk** could adversely impact us or our clients ~~.These impacts could result in increased operational or compliance costs,higher energy expenses,additional taxes,and the devaluation of assets~~ .Our reputation and business prospects may also be damaged if we do not,or are perceived not to,effectively prepare for the potential business and operational opportunities and risks associated with climate change,including through the development and marketing of effective and competitive new products and services designed to address our clients' climate risk- related needs. ~~We also face~~ **These risks include negative market perception,diminished sales effectiveness and** regulatory and ~~liability risk~~ **litigation consequences** associated with greenwashing claims ~~,~~ **or** a failure to execute on our public climate- related commitments ~~,~~or **driven** by association with individuals,entities,industries or products that may be inconsistent with our stated positions on climate change issues.At the same time,certain financial institutions have also been subject to significant scrutiny by regulatory agencies and government officials and other criticism and negative publicity as a result of their decisions to reduce their involvement in certain industries or projects perceived to be associated with climate change.If we do not identify,quantify,and mitigate such risks successfully,we may experience financial losses,litigation,reputational harm,and losses of investor and stakeholder confidence.Even as regulators begin to mandate additional disclosure of climate- related information by companies across sectors, **there may continue** ~~methodologies and data used~~ to ~~conduct~~ **be a lack of information for** more robust climate- related risk analyses ~~are still in development~~ .Third ~~-~~ **-** party exposures **to** ~~,emissions,~~ climate- related risks ~~,~~and other data **generally** are limited in availability and variable in quality.Modeling capabilities across the industry to analyze climate- related risks and interconnections are improving but remain ~~imperfect~~ **incomplete** . ~~These legislative~~ **Legislative** ~~and~~ **or** regulatory uncertainties ~~along with inconsistencies and conflicts of policy across jurisdictions,~~ and changes regarding climate- related risk management and disclosures are likely to result in higher regulatory,compliance,credit,reputational and other risks **and costs,and may subject us to evolving and potentially conflicting requirements in the various jurisdictions in which we operate.** We use various systems and models in analyzing and monitoring several risk categories, as well as for other business purposes. While we assess and improve these systems and models on an ongoing basis, there can be no assurance that they, along with other related controls, will effectively mitigate risk under all circumstances, or that they will adequately mitigate any risk or loss to us. As with any systems and models, there are inherent limitations because they involve techniques and judgments that cannot anticipate every economic and financial outcome in the markets in which we operate, nor can they anticipate the specifics and timing of such outcomes. Further, these systems and models may fail to quantify accurately the magnitude of the risks we face or they may not be effective against all types of risk, including risks that are unidentified or unanticipated. Our measurement methodologies rely on many assumptions and historical analyses and correlations. These assumptions may be incorrect, and the historical correlations on which we rely may not continue to be relevant. **Models based on historical data sets might not be accurate predicators of future outcomes and their ability to appropriately predict future outcomes may degrade over time due to limited historical patterns, extreme or unanticipated market movements or customer behavior and liquidity, especially during severe market downturns or stress events (e. g., geopolitical or pandemic events).** Consequently, the measurements that we make may not adequately capture or express the true risk profiles of our businesses or provide accurate data for other business purposes, each of which ultimately could have a negative impact on our business, financial condition and results of operations. Errors in the underlying model or model assumptions, or inadequate model assumptions, could result in unanticipated and adverse consequences, including material loss or noncompliance with regulatory requirements or expectations. Both U. S. and non- U. S. governments and tax authorities, including states and municipalities, from time to time issue new, or modify existing, tax laws and regulations. These authorities may also issue new, or modify existing, interpretations of those laws and regulations. These new laws, regulations or interpretations, and our actions taken in response to, or reliance upon, such changes in the tax laws may impact our tax position in a manner that affects our earnings negatively. In the course of our business, we are sometimes subject to challenges from U. S. and non- U. S. tax authorities, including states and municipalities, regarding the amount of taxes due. These challenges may result in adjustments to the timing or amount of taxable income, deductions, tax credits, or the allocation of income among tax jurisdictions, all of which may require a greater provision for taxes or otherwise affect earnings negatively. Changes in accounting standards may be difficult to predict and could have a material impact on our consolidated financial statements. New accounting standards, changes to existing accounting standards, or changes in the interpretation of existing accounting standards by the Financial Accounting Standards Board, the SEC or bank regulatory agencies, or otherwise reflected in GAAP, potentially could have a material impact on our financial condition and results of operations. These changes are difficult to predict and in some cases we could be required to apply a new or revised standard retroactively, resulting in the revised treatment of certain transactions or activities, or even the restatement of consolidated financial statements for prior periods. Holders of our common stock are entitled to receive only such dividends and other distributions of capital as our Board of Directors may declare out of funds legally available for such payments under Delaware law. Although we have declared cash dividends on shares of our common stock historically, we are not required to do so. In addition to the approval of our Board of Directors, our ability to take certain actions, including our ability to pay dividends, repurchase stock, and make other capital distributions, is dependent upon, among other things, their payment being made in accordance with the capital plan rules and capital adequacy standards of the Federal Reserve Board. A significant source of funds for the Corporation is dividends from the Bank. As a result, our ability to pay dividends on the Corporation' s common stock will depend in large part on the ability of the Bank to pay dividends to the Corporation. There are various legal limitations on the extent to which the Bank and the Corporation' s other subsidiaries can supply funds to the Corporation by dividend or otherwise. Dividend payments by the Bank to the Corporation in the future will require continued generation of earnings by the Bank and could require regulatory approval under certain circumstances. If the Bank is unable to pay dividends to the Corporation in the future, our ability to pay dividends on the Corporation' s common stock would be affected adversely. Our ability to declare or pay dividends on, or purchase, redeem or otherwise acquire, shares of our common stock or any of our shares that rank junior to our preferred stock as to the payment of dividends and / or the distribution of any assets on any liquidation, dissolution or winding- up of the Corporation also generally will be prohibited in the event that we do not declare and pay in full dividends on our Series D Non- Cumulative Perpetual Preferred Stock (Series D Preferred Stock) and Series E Non- Cumulative Perpetual Preferred Stock (Series E Preferred Stock). Further, in the future if we default on certain of our outstanding debt we will be prohibited from making dividend payments on our common stock until such payments have been brought current. Any reduction or elimination of our common stock dividend, or even our failure to maintain the common stock dividend level in a manner comparable to our competitors, likely would have a negative effect on the market price of our common stock. For more information on dividend restrictions, see " Supervision and Regulation — Payment of Dividends " and " Supervision and Regulation — Capital Planning and Stress Testing " in Item 1, " Business. " Additionally, on October 19, 2021, we announced that our Board authorized a share repurchase program to repurchase up to 25. 0 million shares of the Corporation' s outstanding common stock. The Corporation retains the ability to repurchase when circumstances warrant and applicable regulation permits. The Inflation Reduction Act of 2022, ~~which was signed into law in August 2022,~~ imposes a 1 % excise tax on the fair market value of stock repurchases after December 31, 2022. There have been recent proposals to significantly increase this excise tax rate. Any such material increases may impact our future strategies relating to the return of capital to our shareholders, including the size of, or execution against, current or future repurchase programs related to shares of our common stock.