T+1 SECURITIES SETTLEMENT INDUSTRY IMPLEMENTATION PLAYBOOK

Including a detailed implementation schedule, interim milestones, and identified dependencies

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T1 SETTLEMENT

DTCC ADVANCING FINANCIAL MARKETS. TOGETHER.

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As of February 15, 2023, the U.S. Securities and Exchange Commission (SEC) has announced the rule is final. This Playbook has been updated to reflect changes from the final rule.

While The Depository Trust & Clearing Corporation (DTCC) is not an author of this Playbook, DTCC provided consulting support for SIFMA and ICI in preparing this Playbook.

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1 Introduction

1.1 Executive Summary

In 2017, the standard settlement cycle for securities traded on the secondary markets in the United States (US) was shortened to trade date plus two business days, commonly referred to as T+2. The financial services industry, in coordination with regulators[2], is actively preparing to shorten the standard settlement cycle to trade date plus one business day (T+1). This transition is expected to yield numerous benefits for investors and market participants, including reduced costs, increased market efficiency, and reduced settlement risk.

The Securities Industry and Financial Markets Association (SIFMA)[3], the Investment Company Institute (ICI)[4], and the Depository Trust & Clearing Corporation (DTCC)[5], together with Deloitte & Touche LLP (Deloitte)[6], published Accelerating the U.S. Securities Settlement Cycle to T+1[7] in December 2021 which summarized the Industry Working Group's (IWG)[8] findings and industry-level recommendations for the changes necessary to migrate the securities settlement cycle to T+1. Since that time, market participants have been analyzing the impacts of T+1 within their respective organizations to identify the changes necessary and critical dependencies in order to successfully manage this transition.

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[2] On February 9, 2022, the Securities and Exchange Commission (SEC) issued a proposal to shorten the securities settlement cycle from T+2 to T+1. *See* Shortening the Securities Transaction Settlement Cycle, Exchange Act Release No. 94196 (Feb. 9, 2022) (SEC Rule Proposal). February 15, 2023, the SEC released its Final Rule to transition to an accelerated settlement cycle on May 28, 2024. [Release Nos. 34-96930, IA-6239; File No. S7-05-22] (SEC Final Rule).

[3] **About SIFMA**. SIFMA is the leading trade association for broker-dealers, investment banks and asset managers operating in the U.S. and global capital markets. On behalf of our industry's nearly 1 million employees, we advocate for legislation, regulation and business policy affecting retail and institutional investors, equity and fixed income markets and related products and services. We serve as an industry coordinating body to promote fair and orderly markets, informed regulatory compliance, and efficient market operations and resiliency. We also provide a forum for industry policy and professional development. SIFMA, with offices in New York and Washington, D.C., is the U.S. regional member of the Global Financial Markets Association (GFMA). For more information, visit http://www.sifma.org

[4] **About ICI**. The Investment Company Institute (ICI) is the leading association representing regulated funds globally, including mutual funds, exchange-traded funds (ETFs), closed-end funds, and unit investment trusts (UITs) in the United States, and similar funds offered to investors in jurisdictions worldwide. ICI seeks to encourage adherence to high ethical standards, promote public understanding, and otherwise advance the interests of funds, their shareholders, directors, and advisers. ICI's members manage total assets of U.S.$29.1 trillion in the United States, serving more than 100 million U.S. shareholders, and U.S.$9.6 trillion in assets in other jurisdictions. ICI carries out its international work through ICI Global, with offices in Brussels, London, and Washington, DC.

[5] **About DTCC.** With over 45 years of experience, DTCC is the premier post-trade market infrastructure for the global financial services industry. Industry owned and governed, the firm simplifies the complexities of clearing, settlement, asset servicing, data management, data reporting and information services across asset classes, bringing increased security and soundness to financial markets. In 2020, DTCC's subsidiaries processed securities transactions valued at more than U.S. $2.3 quadrillion. Its depository provides custody and asset servicing for securities issues from 170 countries and territories valued at U.S. $73.5 trillion. DTCC's Global Trade Repository service, through locally registered, licensed, or approved trade repositories, processes 15 billion messages annually.

[6] **About Deloitte.** As used in this document, "Deloitte" means Deloitte & Touche LLP, a subsidiary of Deloitte LLP. Please see www.deloitte.com/us/about for a detailed description of our legal structure. Certain services may not be available to attest clients under the rules and regulations of public accounting. This publication contains general information only and Deloitte is not, by means of this publication, rendering accounting, business, financial, investment, legal, tax, or other professional advice or services. This publication is not a substitute for such professional advice or services, nor should it be used as a basis for any decision or action that may affect your business. Before making any decision or taking any action that may affect your business, you should consult a qualified professional advisor. Deloitte shall not be responsible for any loss sustained by any person who relies on this publication.

[7] Accelerating the U.S. Securities Settlement Cycle to T+1, Accelerating U.S. Securities Settlement Cycle T+1 Report (sifma.org), December 1, 2021.

[8] Industry Working Group participation consisted of 800+ subject matter advisors representing over 160 firms from buy- and sell-side firms, custodians, vendors, and clearinghouses.

This document, the "T+1 Securities Settlement Industry Implementation Playbook (Playbook)," outlines a detailed approach to identifying the potential impacts, implementation activities, implementation timelines, dependencies, and risk impacts, that market participants should consider in order to prepare for the impending transition to a T+1 Settlement Cycle. Firms should use this playbook as a guide to identify the areas impacted by shortening the settlement cycle and the various considerations that should be contemplated. Every firm has a different infrastructure, different businesses, clients, as well as operational process and geographies which all need to be taken into consideration. On February 15, 2023, in an open meeting, the SEC voted to adopt the proposed rule to accelerate the settlement cycle to one day, i.e., T+1. As a result, the United States will transition to T+1 on May 28, 2024.[9] Canada will transition to T+1 on May 27, 2024.[10] It has been further announced that Mexico will consider making the transition to T+1 settlement at the same time as Canada. At time of publication the industry is pending final confirmation from the Mexican regulators approving this transition.

The Playbook consists of fourteen sections. The first two sections provide overviews of the previous T+2 settlement cycle initiative and the approach taken for the Playbook. The next sections of the Playbook describe Trade Processing, Asset Servicing, Documentation, Securities Lending, Prime Brokerage, and Funding and Liquidity Considerations. The remaining sections describe considerations for Regulatory Changes, Additional Considerations (i.e., Global Considerations, Primary Offerings, Buy-Side Considerations, etc.), Industry Testing and Migration Plans, and associated resources for market participants to prepare for the transition to T+1.

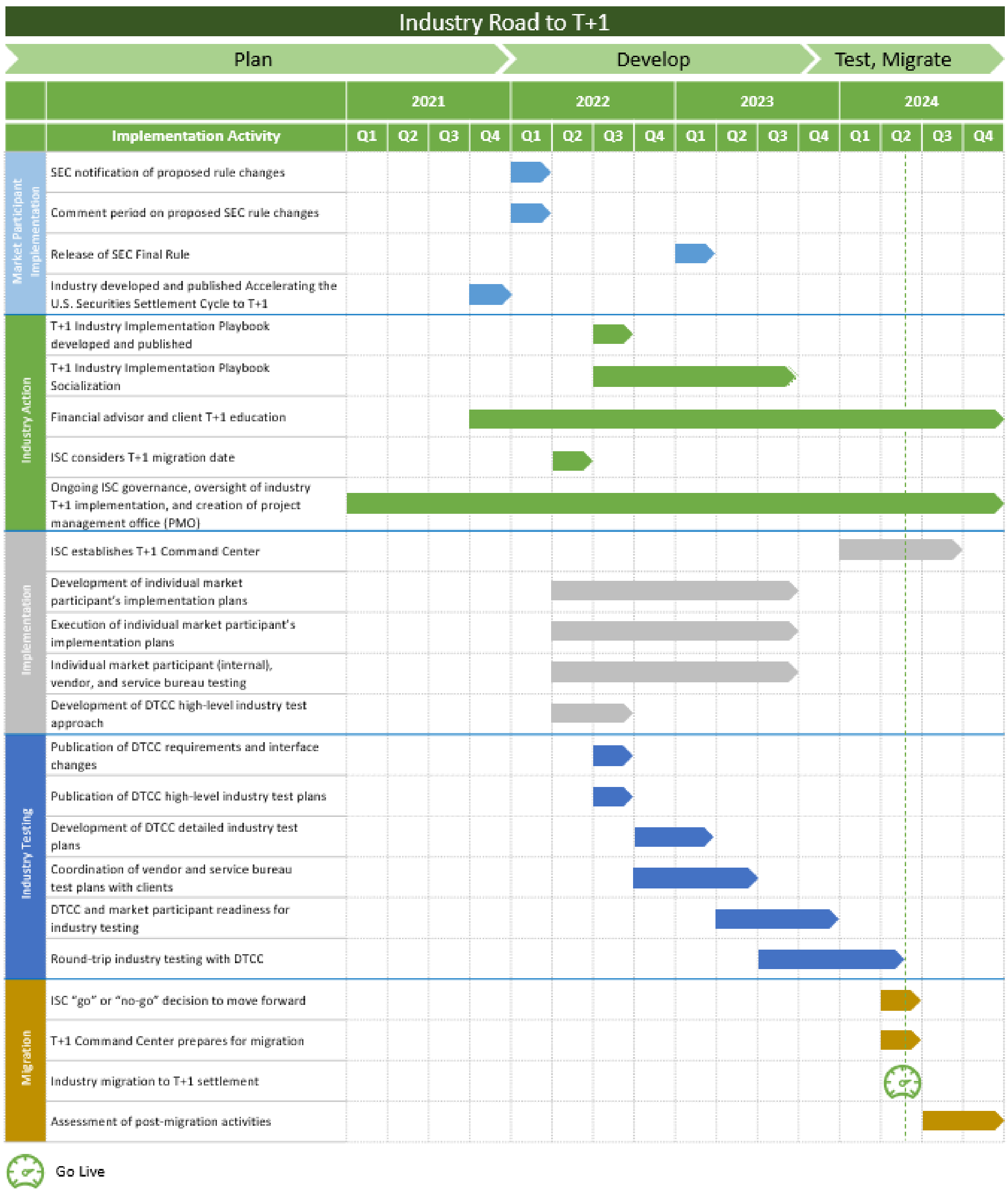
For questions related to this Playbook, please contact the contributing authors referenced above.

[9] *See Supra* note 2.

[10] CCMA Announces Canadian T+1 Start Date: Monday, May 27, 2024, https://ccma-acmc.ca/en/wp-content/uploads/CCMA-Announces-Canadian-T1-Start-Date-March-14-2023.pdf

1.1.1. T+1 Industry Implementation Timeline and Milestones

The illustration below shows the timeline of T+1 implementation and associated milestones across the industry. The implementation activities are categorized by market participant implementation, industry action, implementation, industry testing, and migration. Market participant implementation references activities which are to be addressed by industry parties. Industry action reflects activities that will occur across all industry participants. Implementation activities are related to the official transition date to U.S. T+1 settlement of May 28, 2024.[11]



[11] *See Supra* note 9.

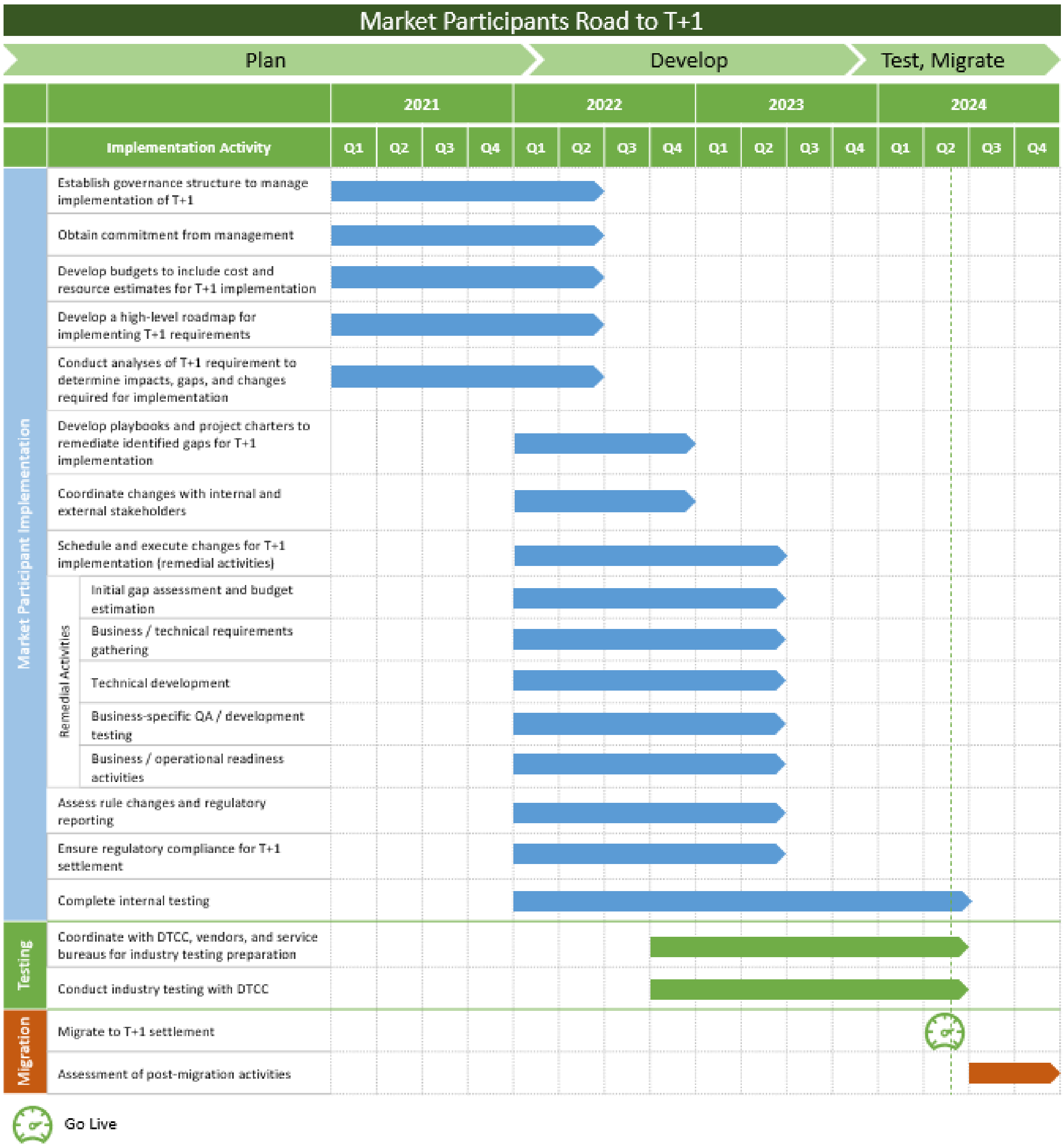
1.1.2. T+1 Industry Implementation Activity Dependencies

SEC Rule 15c6-1 will formally change the settlement date from trade date plus two (2) trade days (T+2) to trade date plus one (1) trade day (T+1). The adoption of SEC Rule 15c6-1 is the underlying dependency for all below listed activities and associated dependencies. The table below reflects the implementation activities listed in the table above in section 1.1.1 T+1 Industry Implementation Timeline and Milestones.

	Implementation Activity	Dependency
Industry Action	T+1 Industry Implementation Playbook developed and published	Review of industry systems and Procedures
	T+1 Industry Implementation Playbook Socialization	Dependent upon successful publication of Playbook
	Financial advisor and client T+1 education	Dependent on successful publication of the Playbook
	Industry Steering Committee (ISC) considers T+1 migration date	Dependent upon agreement of the ISC and the industry
	Ongoing ISC governance, oversight of industry T+1 implementation, and creation of project management office (PMO)	Dependent on path forward approach and scheduling approach by the ISC to engage the industry on a predetermined schedule
Implementation	ISC establishes T+1 Command Center	Dependent upon selection of migration date
	Development of individual market participant's implementation plans	Dependent on proposed rules; should not be dependent of final rule set
	Execution of individual market participant's implementation plans	Dependent on the build and scope of development of market participant plans and final rules
	Individual market participant (internal), vendor, and service bureau testing	Dependent upon internal vendor and service bureau system enhancements, procedural updates, and internal user acceptance sign-off
	Development of DTCC high-level industry test approach	Dependent on the preliminary DTCC test plan and creation of DTCC T+1 Functional
Industry Testing	Coordination of vendor and service bureau test plans with clients	Dependent upon completion of individual market participant implementation, vendor, service bureau, and DTCC readiness
	DTCC and market participant readiness for industry testing	Dependent on DTCC detailed industry test plan and environment configuration
	Round-trip industry testing with DTCC	Dependent on DTCC and market participant testing readiness
Migration	ISC "go" or "no-go" decision to move forward	Dependent on ISC review of testing results and overall readiness determination
	T+1 Command Center prepares for migration	Dependent on DTCC and market participant testing readiness
	Industry migration to T+1 settlement	Dependent on the industry "go" or "no-go" decision
	Assessment of post-migration activities	Dependent on migration to T+1

1.1.3. T+1 Market Participant Implementation Timeline and Milestones

The timeline below outlines the path for market participants in transitioning to T+1 with activities organized across market participant implementation, industry testing and migration. Market participants should use this timeline to assess and plan firm-specific readiness activities in parallel with other industry parties. Market participant implementation references activities which are to be addressed by industry parties. Industry action reflects activities that will occur across all industry participants.



1.2 Industry Efforts on the Road to T+1

1.2.1. Brief History of the Settlement Cycle: T+5 to T+2

The financial services industry moved from a T+5 to T+3 settlement cycle in 1995 to reduce systemic risk and improve the operation of the U.S. clearance and settlement process. Rule 15c6-1 was adopted by the SEC in connection with other measures taken by the securities industry to facilitate a smooth transition from T+5 to T+3. Subsequently, on September 5, 2017, the securities industry successfully transitioned from T+3 to T+2 as a result of thorough planning and coordination among industry participants across the settlement ecosystem. This included a schedule of consistent industry calls, a robust communication program, issuance of various publications (e.g., SIFMA, DTCC, and ICI T+2 Industry Implementation Playbook), a targeted industry outreach program with a disciplined testing regime, and the broad support of the industry and the regulators. The transition from T+3 to T+2 was intended to reduce systemic risk and inefficiencies.

1.2.2. T+1 Accelerated Settlement Cycle Initiative

Stresses on the U.S. markets throughout 2020, 2021, and early 2022 refocused attention on the settlement cycle for securities, including the risks associated in the present-day T+2 settlement cycle. In response to such events, DTCC published a whitepaper "Advancing Together: Leading the Industry to Accelerated Settlement" in February 2021 highlighting the benefits of moving to a T+1 settlement cycle. In early 2022, an Industry Steering Committee (ISC) and associated Industry Working Group (IWG) was formed to analyze the impacts of moving the U.S. securities markets to T+1 settlement as well as the associated risks and benefits of doing so. The ISC determined in its December 2021 Accelerating the U.S. Securities Settlement Cycle to T+1 report that moving to a T+1 settlement cycle will increase the overall efficiency of the securities markets, mitigate risk, create better use of capital, and promote financial stability, provided that the appropriate balance is achieved between increasing efficiencies and mitigating risk.[12]

Below is a summary of the primary benefits anticipated by adopting T+1 settlement as referenced in the Accelerating U.S. Securities Settlement Cycle T+1 Report[13]:

- **Reduction of risk, particularly during periods of high volume and volatility:** As the volume of unsettled trades over a single trading day and the time between trade and settlement are reduced, there will be a reduction in systemic, counterparty, and operational risk across the settlement ecosystem, particularly in periods of market volatility. Furthermore, T+1 settlement preserves the benefits of settlement netting at National Securities Clearing Corporation (NSCC). This significantly reduces the volume of securities and money required to be moved across markets from a Clearing and Settlement perspective on any given trading day.
- **Reduction in liquidity requirements:** With firms' market and counterparty exposure over the settlement period reduced, NSCC participants could see a reduction in margin requirements related to NSCCs VAR Component and ultimately posted to NSCC by its participants. This reduction will allow broker-dealers to better manage their capital and liquidity risks and better utilize their available capital.

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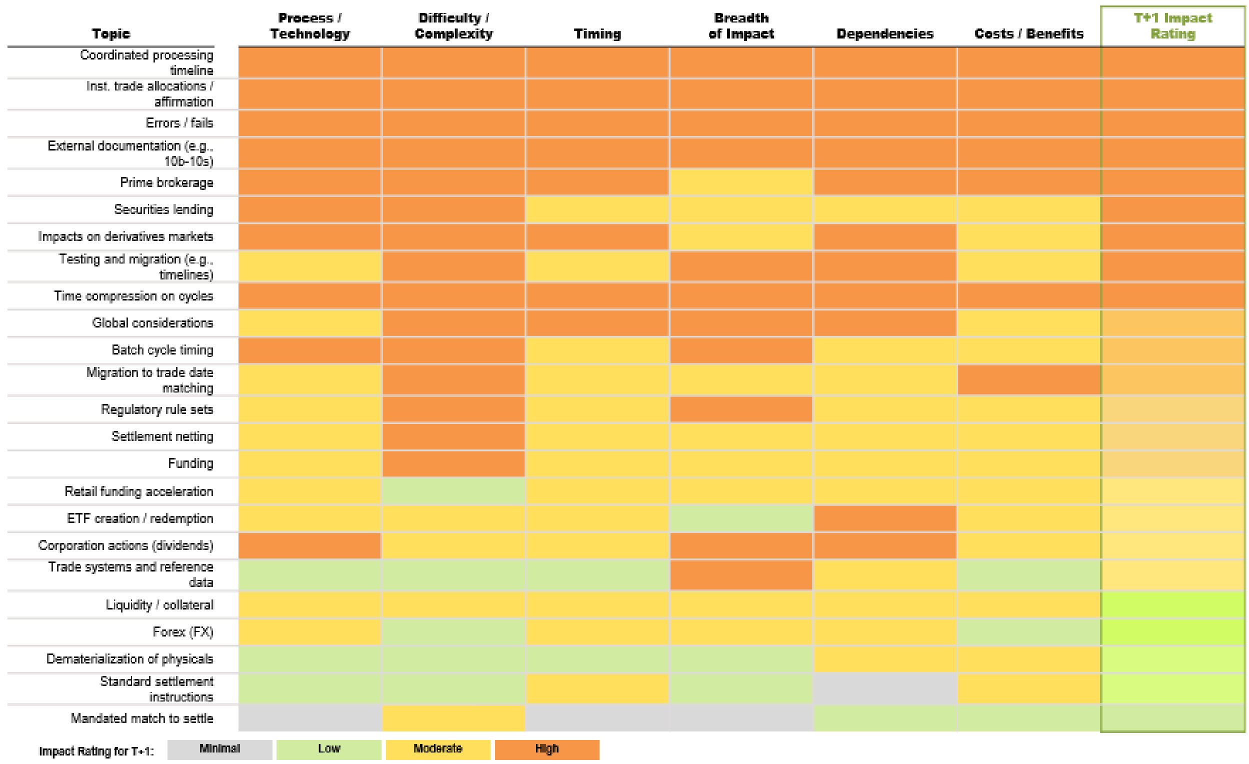
[12] Accelerating the U.S. Securities Settlement Cycle to T+1, Accelerating U.S. Securities Settlement Cycle T+1 Report (sifma.org and UST1.ORG), December 1, 2021.]

[13] Ibid.

For investment funds, T+1 will align the settlement cycle of registered U.S. mutual fund shares with the portfolio securities settlement cycle, thus improving cash and liquidity management.

- **Capital and operational efficiencies:** Capital and operational efficiencies can be grouped into three categories: infrastructure modernization, standardization of industry processes and reduction in costs. Each category is explained further below:
  - **Infrastructure modernization:** Technology adoption and automation of manual processes will significantly reduce operational risk, increase productivity, and reduce friction for market participants. The migration to T+1 provides opportunities to:
    - Accelerate industry adoption of Straight-Through Processing (STP) and re-engineer certain processes. For example, enabling match-to-instruct capabilities for trade affirmation and confirmation, will eliminate redundant processes, save time and expenses, and reduce manual errors
    - Optimize margin calculations and reduce margin requirements among customers, brokers, and clearinghouses
    - Firms may want to consider a pragmatic approach to infrastructure modernization utilizing existing infrastructure and technology
  - **Standardization of industry processes:** By adopting the recommended best practices in this report and implementing behavioral changes across the industry, market participants have an opportunity to standardize and synchronize processes in order to facilitate greater transparency and approach real-time/near-time access to critical data across the financial ecosystem. The migration to T+1 settlement may require standardization for certain industry processes in order to meet updated timelines. Specifically, the migration provides opportunities to:
    - Coordinate processing timelines, formalize and adopt industry best practices to facilitate optimized information sharing and data transfers between counterparties, particularly for critical reports or deadlines (e.g., sharing intraday trade allocation data between counterparties)
    - Formalize SLAs between counterparties to submit allocations as soon as possible in order to have timely allocations
    - Standardize processes for prime broker customer onboarding to enable automated capabilities for recurring, time-sensitive processes (e.g., Form 1 Schedule A)
    - Develop an automated and standardized straight-through settlement processing path for unaffirmed institutional transactions and disaffirmed trades based on regulator guidance on affirmations
  - **Reduction in costs:** The industry foresees long-term cost reduction for market participants and end investors due to the benefits of T+1.

The following heatmap shows the widespread impacts across the post-trade ecosystem, market participants, and legacy technologies that are batch cycle oriented. This visual is intended to differentiate topics with a higher degree of impact (in orange coloring) from areas with a minimal impact (in light green and grey). The topics are listed in descending order of priority, with the overall T+1 Impact Rating collated on the right.



1.2.3. Lessons Learned from T+2 Migration

The move to the T+2 settlement cycle in 2017 yielded benefits for the industry and market participants, including reduced credit and counterparty risk, operational process improvements, cash deployment efficiencies, increased market liquidity, lower collateral requirements, and enhanced global settlement harmonization. The implementation required coordinated changes between market participants across a broad range of functions, including trade processing, asset servicing, legal, compliance, and technology. The same industry consensus, strong organizational leadership, and communication and coordination among industry participants will once again be required to successfully migrate U.S. securities settlement from T+2 to T+1.

1.2.4. Global Markets

The Canadian Capital Markets Association (CCMA) announced plans to move Canadian markets to a T+1 settlement cycle on May 27, 2024. The CCMA is working with Canadian industry participants as well as SIFMA, ICI, and DTCC to transition to a T+1 settlement cycle.[14]

The Mexican market T+1 movement was driven by the Brokers Association (“AMIB”) in May 2023, and an official proposal was announced on July 11, 2023. The Mexican authorities are expected to approve the transition prior to the May 27, 2024, transition date to remain aligned with the Canadian and US markets.

In the Asian markets, the Securities and Exchange Board of India (“SEBI”) has introduced T+1 rolling settlement cycle for stocks on an optional basis. This optional transition was intended to provide

[14] CCMA Announces Canadian T+1 Start Date: Monday, May 27, 2024, https://ccma-acmc.ca/en/wp-content/uploads/CCMA-Announces-Canadian-T1-Start-Date-March-14-2023.pdf

flexibility to stock exchanges to offer either T+1 or T+2 settlement cycle while satisfying requests from market stakeholders to shorten the cycle.[15] Indian stock exchanges started a phased transition to a T+1 settlement cycle on February 25, 2022. Other Asian markets, however, have not indicated such a transition.[16]

European and South American market associations such as the Association for Financial Markets in Europe (AFME) and the His Majesty's Treasury (HMT) Taskforce have started their efforts studying the impacts of a T+1 settlement cycle.[17] The European Securities and Markets Authority (ESMA) recently concluded its Call for Evidence on shortening the settlement cycle, specifically asking about a move to T+1 settlement.[18] Although volumes outside of the United States may be relatively lower than domestic flow, it appears that the metrics show that European and Asian firms have lower matching, instruction, and settlement performance. Market Participant Scope

The move to a T+1 settlement cycle will impact organizations across the financial services industry and throughout the trade lifecycle. Impacted market participants include issuers, asset managers ('40 Act and non-'40 Act funds), broker-dealers (retail, institutional, and prime brokerage), global custodians, vendors, service bureaus, transfer agents, exchanges, clearing firms, buy-side firms, and depositories.

1.2.5. Product Scope

The products subject to the T+1 standard settlement cycle applies to securities that do not carry an exemption from 17 CFR § 240.15c6-1(a). "Securities" defined in Section 3(a)(10) of the Exchange Act covers, among others, equities, corporate bonds, UITs, mutual funds, ETFs, ADRs, and options. Application of 17 CFR § 240.15c6-1(a) extends to the purchase and sale of securities issued by investment companies including mutual funds, private-label mortgage-backed securities, and limited partnership interests that are listed on an exchange.

17 CFR § 240.15c6-1(a) does not apply to (1) contracts for the purchase or sale of limited partnership interests that are not listed on an exchange or for which quotations are not disseminated through an automated quotation system of a registered securities association; (2) Security-based swaps; or (3) Contracts for the purchase or sale of securities that the Commission may from time to time, taking into account then existing market practices, exempt by order.

17 CFR § 240.15c6-1(a) does not apply to contracts for the sale for cash of securities that are priced after 4:30 p.m. ET on the date such securities are priced and that are sold by an issuer to an underwriter pursuant to a firm commitment underwritten offering registered under the Securities Act of 1933 or sold to an initial purchaser by a broker-dealer participating in such offering provided that a broker or dealer shall not effect or enter into a contract for the purchase or sale of such securities that provides for

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[15] "SEBI introduces T+1 settlement cycle for stocks on optional basis," https://www.moneycontrol.com/news/business/sebi-introduces-t1-settlement-for-stocks-on-optional-basis41641.html#:~:text=The%20Securities%20and%20Exchange%20Board%20of%20India%20%28SEBI%29,will%20come%20into%20force%20on%20January%201%2C%202022 (accessed July 23, 2022).

[16] On February 25, 2022, the Securities and Exchange Board of India (SEBI) shifted to the T+1 settlement cycle; Stock market: Stock market shifts to T+1 settlement cycle - The Economic Times (indiatimes.com).

[17] Global Settlement: Implications for T+1 in Europe | DTCC.

[18] ESMA Call for evidence on shortening the settlement cycle, 5 October 2023, | ESMA. https://www.esma.europa.eu/sites/default/files/2023-10/ESMA74-2119945925-1616_Call_for_evidence_on_the_shortening_of_the_settlement_cycle.pdf

payment of funds and delivery of securities later than the second business day after the date of the contract unless otherwise expressly agreed to by the parties at the time of the transaction.

The Commission also modified 17 CFR § 240.15c6-1(b) to exclude security-based swaps from the requirements under 17 CFR § 240.15c6-1(a). Additionally, the Commission retained exemptions for certain insurance products as well as exemption for certain foreign securities. The Commission did not include derivatives in the official scope of the rule, but there is interest from firms across the industry to align derivatives with their underlying hedges.

The products subject to the shortened settlement cycle include equities, corporate and municipal bonds, unit investment trusts, and financial instruments comprised of these security types. Financial instruments that settle at the discretion of the distributor and have extended or shortened settlement periods in the current settlement environment will not be impacted by T+1 implementation. Although listed options settle T+1, the exercise and assignment process is subject to T+1. The following list includes products that the industry has identified as in scope for T+1 settlement. However, this list is not meant to be an exhaustive list of products that could be impacted by T+1 implementation:

T+1 Impacted Product Scope[19]
Equities
Common Stock
Common Stock Real Estate Investment Trust (REIT)
Convertible Common Stock
Equity Units
Equity Derivatives
Preferred Stock
Preferred Stock REIT
Tender Rate Preferred Stock
Auction Rate Preferred Stock
Convertible Preferred Stock
Preferred Perpetual
American Depositary Receipts (ADR)
Exchange Traded Funds (ETF)
Exchange Traded Products
Exchange Listed Limited Partnerships
Exchange Traded Notes
Mutual Funds
Fixed Income
Corporate Debt or Global Corporate Bond
Medium-Term Note
Corporate Debenture
Corporate Debt Derivative
Corporate Auction Rate Note
Convertible Corporate Debt
Debt Units

[19] Securities that settle at the Federal Reserve are not included. This list relates only to DTC eligible securities.

T+1 Impacted Product Scope[19]
Zero Coupon Bond
Pass Thru Certificates (Corporate Debt)
Zero Coupon Denominated in Initial Principal Amount
Bearer/Callable Zero-Coupon Bond
Equipment Trust Certificate (Corporate Debt)
Demand Note
Corporate Other Tax Exempt
Corporate Insured Custodial Receipt
Credit Linked Note
Commodity Linked Note
Municipal Debt
Municipal Auction Rate Note
Municipal Insured Custodial Receipt
Index Linked (Municipal Bond)
Municipal Variable Mode Obligation (VMO)
Municipal Option Call Right
Municipal Other Tax Exempt
Municipal Other Tax Exempt
Municipal Note
Municipal Amortized Issue
Municipal Insured Custodial Receipt
Stepped Coupon (Municipal Bond)
Municipal Bond
Asset-Backed Security (ABS) or Global ABS
CMO Floater (non-agency)
Collateralized Mortgage Obligation (CMO)
Sinkable Floater (ABS)
Collateralized Loan Obligation
Mortgage-Backed Securities[20]
Structured Product
Non-CMO/ABS Amortizing Issue
Derivatives
Warrants
Rights
Money Market Instruments
Certificate of Deposit
MMI Institutional Certificates of Deposit
Certificated Money Market - Periodic Payer
MMI Medium Term Note
Certificated Money Market Instrument

[20] Mortgage-Backed Pass-Through Securities such as To Be Announced (TBAs) and Specified Pools that settle at the Federal Reserve are not included.

T+1 Impacted Product Scope[19]
MMI Medium-Term Bank Note
Commercial Paper (Money Market)
MMI Municipal Commercial Paper
MMI Bankers' Acceptance Note (BA)
MMI Corporate Commercial Paper
MMI Short-Term Bank Note
MMI Corporate VRDO/CP
MTN Medium Term Note
MMI Deposit Note
Municipal Amortized Issue
MMI Discount Note
Miscellaneous
Tender Rate Note
Unit Investment Trust (UIT)
When Issued Securities[21]
Corporate Insured Custodial Receipt
Limited Partnership
Private Investment Public Equity (PIPE)

****Participants should inquire with the DTCC as it relates to securities that are "DTCC Eligible" that would settle on T+1.****

1.2.6. Baseline Metrics for T+1

In order to conduct the necessary analysis of a firm's settlement environments across their lines of business, firms should consolidate and analyze metrics (e.g., trade volumes, fail rates, allocation rates, affirmation rates). The baseline metrics should be used to understand the order of magnitude of the size/volume of any specific process. By using these metrics, firms can make conclusions as to the impact of the changes to the process or perhaps where there are specific performance bottlenecks. By capturing metrics during the analysis period, firms will be able to establish a baseline from which future changes and performance can be evaluated, as well as the ability to measure the impacts of T+1, before and after the transition period. The metrics below are meant to be directional and is not meant be exhaustive.

The Baseline Metrics table can be found below. The dimensions columns are intentionally left blank to allow users of the Playbook customize the table to use during the analysis period. This table is meant to be used an exercise that firms can undertake.

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[21] When issued securities trade when they are announced but not yet issued. However, when they are issued, they settle regular way.

T+1 Baseline Metrics				
Metric Category	**Metric**	**Dimensions**		
		Count/ Value	**Product**	**Legal Entity/Line of Business**
Trade Volume	U.S. Equities/DTCC eligible products			
	Fixed income (e.g., US treasuries/Bonds)/DTCC population			
	ETFs/Exchange Traded Note (ETNs)			
	ADRs/Master Limited Partnerships (MLPs)			
Fail Rates	Metrics for trades unmatched from T+1:			
	Due to SSI mismatch			
	Due to product not being Setup			
	Due to inventory			
	Due to counterparty missing instructions			
	Due to mismatch on trade details			
	Due to ongoing corporate action event			
	Fails resolved by manual intervention			
	Fails resolved by Client sending correct trade file			
	Fails resolved by counterparty matching			
	Fails due to trades being “don’t know’d” (DK'd)[22]			
	Average Time to Resolve Fail			
Allocation Rates	Average Daily Count of Allocations			
	Allocated on T			

[22] A DK’d trade results when one of the parties has a dispute or rejects the trade due to a given discrepancy.

T+1 Baseline Metrics				
Metric Category	**Metric**	**Dimensions**		
		Count/ Value	**Product**	**Legal Entity/Line of Business**
	Allocated on T+1			
	Allocated on T+2			
	Percentage of allocations on trade date (T) after 7:00PM ET			
	Number of clients not sending trades on T			
Affirmation Rates	Average Daily Affirmation Rate			
	Affirmed on T			
	Affirmed on T+1			
	Affirmed on T+2			
	Percentage of affirmations done after 9:00PM ET on T			
Buy-in (DTC)	Number of buy-in due to Insufficient Stock			
	Number of buy-in due to no locate in place			
	Buy-in due to settlement error			
	Number of buy-in due incorrect place of settlement (e.g., trade booked in Italy instead of DTC)			
Trade Errors	Number of trades manually touched everyday			
	Reason for trades being manually touched			
	Trade failed due to manual error			

T+1 Baseline Metrics				
Metric Category	**Metric**	**Dimensions**		
		Count/ Value	**Product**	**Legal Entity/Line of Business**
Corporate Actions	Average volume of corporate action events			
Securities Lending	Bi-lateral trades (daily, weekly, monthly, etc. for all)			
	Margin/Exposure/Collateral management			
	Contract Compare breaks			
	Delivery versus Payment (DVP) vs Free of Payment (FOP)			
	Recalls (Securities Industry Automation Corporation (SIAC), etc.)			
	Reg SHO 204 (failure to deliver)			
Payments	Number of manual checks			
	Average ACH timing			
	Average ACH volumes			

2 Playbook Overview

2.1 Purpose and Goal

SIFMA, ICI and DTCC are actively leading the industry initiative to shorten the settlement cycle for the securities markets in the US. They have formed an Industry Steering Committee (ISC) of industry participants to provide the governance and consensus building. Additionally, Industry Working Groups (IWG) were formed to participate in industry working sessions to understand the impact and make recommendations on implementation activities. The ISC worked with the IWG to determine the scope, requirements, and changes for the move to T+1 settlement, as published in the Final Report "Accelerating the U.S. Securities Settlement Cycle to T+1." This Playbook continues the ISC's initial work to provide guidance and activities necessary to implement the changes needed to meet the requirements for T+1 settlement. This Playbook is intended to serve as a framework and guide for impacted market participants to leverage when implementing the shortened settlement cycle. While some sections may not pertain to each organization, they should provide users with a resource to assist with its T+1 implementation plans. This Playbook has been updated to reflect the final SEC rule released on February 15, 2024.[23]

2.2 Approach

The Playbook captures and organizes the various considerations, requirements, and activities for a T+1 implementation as provided by members of the IWG through ongoing engagement and discussion since its initiation in early 2021. The Playbook includes the following:

- An illustrative T+1 industry timeline with interim milestones and dependencies designed to guide industry action, market participant implementation, testing, and migration
- An illustrative market participant timeline with interim milestones and dependencies designed to guide planning, development, testing, and migration to T+1 for individual organizations
- Impact assessment and a suggested implementation approach to make the required changes to transition to T+1
- A high-level testing, migration, and industry readiness assessment plan to transition to T+1

2.3 Navigation

2.3.1 Topics

The Playbook provides timelines, milestones, and guidelines for market participants to assist in the planning, development, testing, and migration to a T+1 settlement cycle. The Playbook sections provide suggested activities across a number of business areas, including trade processing, asset servicing, documentation, securities lending, prime brokerage, and funding and liquidity. Additionally, the Playbook provides considerations for firms in the planning and execution of these impact assessment and implementation considerations, including response to regulatory changes, testing, and business readiness for the migration.

[23] On February 9, 2022, the Securities and Exchange Commission (SEC) issued a proposal to shorten the securities settlement cycle from T+2 to T+1. See Shortening the Securities Transaction Settlement Cycle, Exchange Act Release No. 94196 (Feb. 9, 2022) (SEC Rule Proposal). February 15, 2023, the SEC released its Final Rule to transition to an accelerated settlement cycle on May 28, 2024. [Release Nos. 34-96930, IA-6239; File No. S7-05-22]

2.3.2 Impact Assessment and Implementation Considerations

The Playbook details the steps that organizations should consider for each impact assessment and implementation consideration and provides a framework for impacted market participants to use as they assess their respective organization's requirements for T+1 settlement.

Market participants should develop comprehensive internal implementation plans in addition to the activities described herein.

Activity	Implementation Task Description
Implementation Steps	For each activity, implementation steps are provided as a guide for organizations as they conduct readiness activities in preparation for the migration to T+1 settlement (Note: Certain implementation steps will not be applicable to each organization).
Organization Participants (Front, Middle, Back, IT, Vendor)	This column under each of the activities tables is intentionally left blank to allow users of the Playbook to choose which organization participants are responsible for specific implementation steps. This will allow users to customize the table to align with their organization's needs and to accurately reflect their organization's structure.
Systems	This column under each of the activities tables is intentionally left blank to allow users of the Playbook to choose which systems apply to specific implementation steps. This will allow users to customize the table in order to align with their organization's needs and to accurately reflect their organization's structure.

Market participants that choose to utilize activity tables should assess and capture their respective organization's requirements and structure within the Organization Participants and Systems columns. An example of a "completed" activity table is below:

Activities to Configure Trading Systems			
#	**Implementation Steps**	**Organization Participants (Front, Middle, Back, IT, Vendor)**	**Supporting Systems**
1	Inventory trading systems, including hardware and software	All	Internal, Vendor
2	Determine systems with in-scope products impacted by T+1 implementation	All	Internal
3	Examine changes required to systems for settlement date configuration	IT	Internal

Activities to Configure Trading Systems			
#	Implementation Steps	Organization Participants (Front, Middle, Back, IT, Vendor)	Supporting Systems
4	Assess impact of required changes to upstream and downstream systems	All	Internal
5	Determine responsibility for trading system changes	Front, IT	Internal, Vendor
6	Coordinate system changes with internal and external stakeholders	All	Internal, Vendor
7	Develop trading system and operations test plans	Middle, Back, IT, Vendor	Internal, Vendor
8	Schedule and execute system changes	IT, Vendor	Internal, Vendor

2.3.3 Dimension Table

The Playbook includes dimensions that organizations should consider when planning and executing the activities for T+1 implementation. The table below provides a description of these dimensions:

Dimension	Description
Business Model	Resulting ramification on an organization's business model due to the T+1 settlement cycle
Product Type	Implications for specific product types impacted by industry-level requirement or sub-requirement
Vendor & Service Bureau Support	Vendor and service bureau support required to implement end-to-end T+1 processes
Trading Venue	Trading venue specific requirements to changes in the settlement cycle
Risk & Compliance	Oversight of operational process, procedure, and policy changes impacted by the T+1 implementation, including risk management and regulatory compliance
Customer Experience	Resulting impacts of the shortened settlement cycle on internal or external customers
Technology Enablers	Technology updates and considerations required to support T+1 implementation

In addition, the below table indicates which industry participants are most likely impacted by the respective activities:

Participants Impacted	**Buy-Side**	✓	**Sell-Side**	✓
	Custodian	✓	**Vendor**	✓

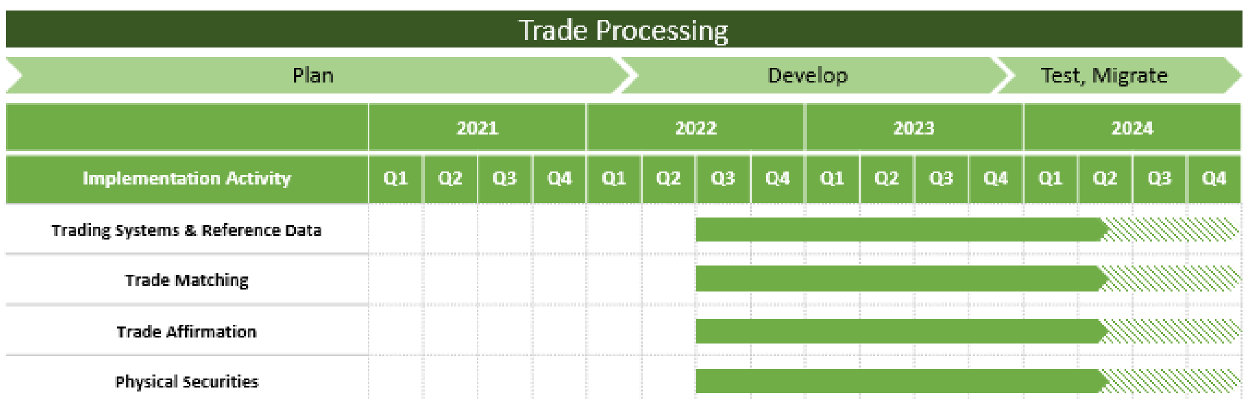
3 Trade Processing

3.1 Introduction

The move to T+1 settlement will require changes throughout the trade processing lifecycle to shorten the process from two to one business day. In the Final Rule,[24] to help guide organizations to transition to the T+1 settlement cycle, the following section identifies implementation activities for trade processing that need to be considered.

3.2 Timeline and Milestones

The following timeline illustrates the trade processing implementation activities and milestones necessary to meet a May 28, 2024, U.S. T+1 implementation:



3.3 Impact Assessment and Implementation Considerations

The dimensions detailed below should be considered by firms when assessing trade processing in a T+1 settlement:

Dimension	Impacted?	Description
Business Model	Potential Impact	Changes in the trade processing lifecycle are not expected to have a large impact on organization's business models. There may exist staffing work considerations. Tooling to automate these processes may require different skill set requirements for teams.
Product Type	Potential Impact	In-scope products should be evaluated, and trading processes and systems should be configured for T+1 settlement to account for various product types correctly (e.g., fixed income vs. equities).

[24] *See* SEC Final Rule Page 2;

Dimension	Impacted?	Description
Vendor & Service Bureau Support	Potential Impact	Vendors and service bureaus should configure trading systems for T+1 settlement in order to avoid risk (e.g., financial, reputational) to their customer organizations.
Trading Venue	None	Trading venues are not likely to be changed or largely impacted by trade processing with a T+1 settlement.
Risk & Compliance	Potential Impact	Organizations that do not properly transform trade processes and relevant systems for the new settlement period may compromise the ability to execute and settle trades in accordance with regulatory guidance.
Customer Experience	Potential Impact	Incorrectly configured trade processes and systems may cause upstream and downstream implications for internal functions (e.g., reconciliation, income processing) and impact external clients (e.g., client statements, trade confirmations). Issues may also result in failed trades for external customers. Organizations should consider the customer experience and user interface continuity when scheduling trading system changes.
Technology Enablers	Potential Impact	Organization's trading systems should prepare for settlement date configuration errors that may arise and impact upstream and downstream functions that rely on information from the trading systems.

The participants impacted table below indicates which industry participants are most likely impacted by trade processing:

Participants Impacted	**Buy-Side**	✓	**Sell-Side**	✓
	Custodian	✓	**Vendor**	✓

3.3.1 Trading Systems and Reference Data

Reference data and trade processing systems must be re-configured for T+1 as standard settlement.

3.3.1.A. Configure Trading Systems

Trade processing systems that support the lifecycle of a trade that are currently configured for T+2 settlement must be updated to support T+1 settlement as a regular way/standard settlement.

Organizations will need to review the configurations to understand how the settlement dates are defined. If needed they will have to re-configure trading systems for T+1 settlement and should consider conducting a trading system assessment early in the T+1 implementation analysis and planning process. Firms should consider the following when evaluating trade processing systems to support T+1 settlement processes:

- Security master initiation and maintenance
- Customer account openings and management
- Margin
- Batch cycle timing
- Standardization of settlement instructions
- Trade allocation instruction
- Real time trade matching and affirmation
- Trade confirmations
- Implement controls to reduce the manual work required on T+1 for cancel and corrected trades
- Availability of IT personnel with comprehensive knowledge of internal trading systems, including legacy and future-state systems

By performing this assessment and evaluating these considerations, firms will identify resource needs as well as additional trading system hardware and software expenses to ensure a successful configuration of trading systems.

Activities to Configure Trading Systems

Activities to Configure Trading Systems			
#	**Implementation Steps**	**Organization Participants (Front, Middle, Back, IT, Vendor)**	**Supporting Systems**
1	Inventory trading systems, including hardware and software (completeness check)		
2	Determine systems with in-scope products impacted by T+1 implementation		
3	Examine changes required to systems for settlement date configuration (e.g., hardcoding vs. logic in programs)		
4	Assess the impact of required changes to upstream and downstream systems		
5	Determine responsibility for trading system changes (proprietary vs. external vendor and service bureau)		
6	Coordinate trading system changes with internal and external stakeholders		
7	Develop trading system test plans		

Activities to Configure Trading Systems			
#	Implementation Steps	Organization Participants (Front, Middle, Back, IT, Vendor)	Supporting Systems
8	Schedule and execute system changes (consider customer experience and user interface continuity when scheduling trading system changes)		

3.3.1.B. Update Reference Data

Organizations must update their reference data (e.g., the asset type, counterparty information), security pricing data, and standardized settlement instructions (SSIs), for a T+1 settlement cycle. Firms should consider how to update reference data to support the T+1 settlement process:

- Consolidation of data feeds between new and legacy systems to centralize data management and expand accessibility across business functions in order for data/instructions to be leveraged in downstream processes
- Centralize management of SSIs to facilitate automated updates and potentially reduce the number of trade fails'
- Assess root cause of fails and assess processes related to insufficient data and SSIs
- Develop and implement change management/training plans to facilitate implementation of technology solutions
- Adopt policies and procedures that enable participants to update SSI reference data in timely manner prior to settlement, including reaching out to clients prior to settlement and updating internal systems prior to trade execution and/or settlement
- Firms should work with their counterparties, vendors, regulators, and clients to better understand their internal impacts related to data communication between the systems, the timing requirements, system improvements, and process changes in preparation for this migration.
- There should exist methods by which firms may assess the quality of existing reference data and recommendations to review and remediate. As it relates to reference data, firms should understand that reference data may include more than just SSI data validity and connectivity. (Firms should leverage the baseline metrics table on pages 19 and 114).

The IWG suggests that organizations coordinate with vendors and service bureaus on reference data changes to mitigate risks associated with the updates for T+1 implementation.

Activities to Update Reference Data

Activities to Update Reference Data			
#	**Implementation Steps**	**Organization Participants (Front, Middle, Back, IT, Vendor)**	**Supporting Systems**
1	Identify data sources and inventory reference data (completeness check)		
2	Determine reference data impacted by T+1 implementation (coordinate with vendors and service bureaus if necessary)		
3	Assess the impact to downstream systems and data and interconnecting activities for reference data changes		
4	Examine impact of reference data changes on regulatory compliance requirements		
5	Determine responsibility for reference data changes (proprietary vs. external vendor and service bureau)		
6	Coordinate reference data changes with internal and external stakeholders		
7	Develop reference data test plans (consider how to migrate reference data on T+1 migration date while continuing operations on T+2 settlement)		
8	Schedule and execute reference data changes		
9	Review SSI data quality		

3.3.1.C. Review Trade Funding Processes and Payment Mechanisms

Organizations must review payment mechanisms used to move money in anticipation of trade settlement to ensure availability of funding for settlement on T+1.

Organizations should consider amending trade funding processes (both institutional and retail), including payment mechanisms (e.g., Automated Clearing House (ACH)), for T+1 settlement.

Foreign exchange processing and standing procedures should be reviewed to ensure matching currency exchange with the shortened trade settlement cycle (e.g., an investor whose account only holds British Pound Sterling (GBP) purchases a security in USD). In certain instances, organizations should ensure that trade funding can be arranged for same day FX settlement to guarantee trade settlement.

Activities to Review Trade Funding Processes and Payment Mechanisms

Activities to Review Trade Funding Processes and Payment Mechanisms			
#	**Implementation Steps**	**Organization Participants (Front, Middle, Back, IT, Vendor)**	**Supporting Systems**
1	Ensure that systems and reference data related to trade funding, as well as payment mechanisms, are included in inventories for configuration		
2	Examine upstream system, data, and process changes to ensure that they do not interfere with the process for trade funding		
3	Determine changes required to processes related to trade funding including any global trade funding		
4	Assess how changes to payment mechanisms impact policies, procedures, and controls		
5	Develop capacity for mobile deposits or other electronic payment methods and recommend these methods to customers (consider efficiencies to decrease check and Automated Clearing House (ACH) processing time for retail investors)		
6	Coordinate changes to payment mechanisms and processes related to trade funding with internal and external stakeholders		
7	Develop trade funding process and payment mechanism test plans		
8	Schedule and execute changes to trade funding and payment mechanism processes, policies, procedures, and controls		
9	Communicate changes to trade funding policies and procedures to customers		

3.3.1.D. Revise Mutual Fund Settlement Dates

Organizations should revise settlement dates for mutual funds from T+2 to T+1 settlement. This is not expected to have an operational impact on the majority of organizations because it only relates to extended settlement of mutual funds as the majority of funds already settle T+1.

Fund/SERV is DTCC's platform for processing mutual funds, bank collective funds and other pooled investment product trade activity. Mutual funds within Fund/SERV currently have Flexible Settlement Feature that supports settling of investment products on Same Day (T), Next Day (T+1), T+2, or extended settlement and those with a T+2 settlement date will have the option of revising the date to T+1.

Similar to the move from T+3 to T+2, Wealth Management Services will coordinate a systemic update of securities with a T+2 settlement date to convert to a T+1 settlement date. An Important Notice with details will be provided well in advance of the systematic conversion.

Organizations should also review fund settlement processes that may occur outside of DTCC's Fund/SERV platform to ensure that a shortened fund settlement cycle will not cause operational issues. It is recommended that firms embrace automated systems in every possible circumstance to avoid any manual mistakes to hinder the settlement on T+1.

Firms managing non-US mutual funds with exposure to US securities should review and consider any potential cash management impact resulting from a fund share settlement cycle different from the underlying securities cycle. Mutual funds may manage these particular liquidity needs by, among other methods, using cash reserves, back-up lines of credit, or interfund lending facilities to provide cash to cover the settlement mismatch.[25]

Activities to Revise Mutual Fund Settlement Dates

Activities to Revise Mutual Fund Settlement Dates			
#	Implementation Steps	Organization Participants (Front, Middle, Back, IT, Vendor)	Supporting Systems
1	Inventory mutual funds		
2	Determine whether to revise mutual fund settlement dates		
3	Assess changes required for mutual fund settlement date configuration		
4	Coordinate with DTCC to revise mutual fund settlement dates within Fund/SERV		
5	Develop test plans for settlement of mutual funds		
6	Schedule and execute mutual fund settlement date changes		

3.3.1.E. Update Exchange Traded Fund (ETF) Primary Market Create and Redeem Processes

ETF Fund Sponsors, Authorized Participants (APs), and respective service providers should review and adjust processes to accommodate ETF creation and redemption (primary market activity) for a T+1

[25] See SEC Final Rule Pages 201-202;

settlement cycle. NSCC's ETF service is the primary market for Create and Redeem eligible funds. The ETF application processes these orders through CNS which provides a Central Counterparty Guarantee. The NSCC Create and Redeem process for ETFs must be adjusted for T+1.

The following are considerations relating to ETFs that the IWG believes firms should consider when reviewing processes internally:

- **Timing of batch cycles**. NSCC current cutoff to receive ETF creation/redemption orders is until 8:00PM ET on T in the primary cycle, with no plans to extend or change the 8:00PM ET cutoff for a transition to a T+1 settlement cycle. The batch-driven cycle is subject to tight timeframes with Agent Banks, AP's and NSCC waiting on end of day pricing and a small window for processing. The challenges late pricing poses and proposed solutions are listed below:
  - NSCC will accelerate availability of end of day pricing to allow for near real time reporting of ETF Creation and Redemption trades via NSCCs UTC near real time reporting
  - Currently, in T+2, the CNS exemption cutoff is 6:30PM ET; this may represent processing challenges to members of CNS as this is the first time those ETF Create/Redeem trades are seen in ETF reporting via the Instruction Detail Blotter. The timing of CNS exemption for T+1 will be set to 10:45PM ET
- **Collateral requirements.** US traded ETFs holding non-US securities (where the settlement cycle is not T+1) should review and analyze impact to posting collateral resulting for basket of creation and redemption. These global ETFs are typically created and redeemed ex-clearing between ETF Agent/Fund Sponsor and AP's. T+1 will result in compressed timelines and misalignment of global settlement cycles which may create the following challenges:
  - On the creation side, APs will need to post collateral for an additional day in order for the ETF Agent to release the ETF shares on T+1, in cases when the underlying securities are international, settling T+2 or longer. This will create cash management challenges especially if there is a need to sell underlying securities in global markets with a longer than T+1 settlement. This misalignment in settlement cycles introduce the possibility of APs needing to establish lines of credit with the collateral payment shifting a day forward.

  NSCC has met with the ETF Agents and APs to review these concerns and determine if NSCC can develop workflows with collateralization that may resolve these concerns.
- **Other considerations.** The following areas should be examined:
  - AP agreements to perform functions on behalf of clients should be reviewed for language to allow flexibility for a shorter settlement cycle
  - Baskets holding IPO shares may see extended settlement depending on APs ability to deliver the shares but should not be impacted by accelerated settlement
  - Extended settlement for rebalancing will still occur
  - Retrieve real time messages from NSCC

Activities to Update ETF Primary Market Create and Redeem Processes

Activities to Adjust ETF Create and Redeem Processes			
#	**Implementation Steps**	**Organization Participants (Front, Middle, Back, IT, Vendor)**	**Supporting Systems**
1	Review ETF Create and Redeem processes to meet agreed upon cut-off times		
2	Develop test plans for ETF creation and redemption		
3	Schedule and execute ETF settlement date changes		

3.3.1.F. Review Trade Order Management and Trade Capture Processes

Organizations that send Universal Trade Capture (UTC) messages to NSCC must be aware that the regular way/standard settlement will be interpreted as T+1.

Organizations need to review trade order management and trade capture processes for T+1 settlement. For those products eligible for T+1 (e.g., equities, corporate bonds, UITs), settlement within trade order management and trade capture processes, systems, and messages, should be updated to reflect T+1 as standard settlement.

Activities to Review Trade Order Management and Trade Capture Processes

Activities to Review Trade Order Management and Trade Capture Processes			
#	**Implementation Steps**	**Organization Participants (Front, Middle, Back, IT, Vendor)**	**Supporting Systems**
1	Ensure that systems and reference data related to trade order management and trade capture are included in inventories for configuration (i.e., Trade Order Management Solution (TOMS), UTC)		
2	Determine changes required to processes related to trade order management and trade capture		
3	Coordinate changes to processes related to trade order management and trade capture with internal and external stakeholders (e.g., FIX, SWIFT)		
4	Develop test plans for trade order management and trade capture		

Activities to Review Trade Order Management and Trade Capture Processes			
#	**Implementation Steps**	**Organization Participants (Front, Middle, Back, IT, Vendor)**	**Supporting Systems**
5	Schedule and execute process changes for trade order management and trade capture		

3.3.1.G. Standardize Communication Protocols for Trade Away Processes

The move to T+1 settlement will require the adoption of technology (e.g., CTM/M2i) and/or messaging protocols (e.g., FIX) to automate the communication of trade away processes.[26] Relying on conventional communication channel (i.e., email, faxes) for step out trades could lead to operational challenges and reduce the chances of timely order execution resulting in delayed allocation and affirmation. In addition, international timelines must adjust to allow for efficient and effective communication between market participants. FIX and SWIFT messaging can help in creating a standardized process with operational efficiency.

Activities to Standardize Communication Protocols for Trade Away Processes

Activities to Standardize Communication Protocols for Trade Away Processes			
#	**Implementation Steps**	**Organization Participants (Front, Middle, Back, IT, Vendor)**	**Supporting Systems**
1	Ensure that systems and reference data related to trade away processes are included in inventories for configuration (i.e., Trade Order Management Solution (TOMS), UTC)		
2	Determine changes required for trade away processes and relevant communication protocols		
3	Coordinate changes to processes related to trade away communication protocols with internal and external stakeholders (e.g., FIX)		
4	Develop test plans for standardize communication protocols for trade away processes		
5	Schedule and execute process changes for standardization of communication protocols for trade away processes		

[26] A trade away is a strategy that makes it possible to execute a trade through a broker or dealer other than the broker that is normally used to manage trade executions.

3.3.2 Trade Matching

Organizations will need to configure trade matching systems for T+1 settlement and should consider conducting a trade matching assessment early in the T+1 implementation planning process. Firms should consider the following when evaluating trade matching systems and processes to support T+1 settlement processes:

- Institutional Trade Processing (ITP) transactions must be affirmed by 9:00PM ET on T in order to be eligible for DTCs ID ANE service, Night cycle, and NSCCs Prime Broker Continuous Net Settlement (CNS) Flip service
- Adopting trade matching technology/systems, leverage automated workflows, and STP to ensure trades can be affirmed by the DTCC 9:00PM ET cutoff on T
- NSCC Trades must be received by the 9:00PM ET cutoff on T from the exchanges and other marketplaces in order to be eligible for CNS settlement in the DTC night cycle (if the transactions meet the CNS eligibility requirements). NSCC trades will continue to be accepted until 1:30PM ET on settlement date. These trades will be netted into CNS before or during the day cycle depending on when they are received by NSCC

3.3.2.A. Update Trade Matching Processes

Organizations need to update trade matching processes and make changes as necessary to ensure settlement on T+1.

Organizations using NSCC's Real Time Trade Matching (RTTM) platform should assess processes to match trades by 9:00PM ET on T for T+1 settlement. NSCC's RTTM platform collects and processes trading activity for fixed income products, including corporate bonds, municipal bonds, and Unit Investment Trusts (UITs) settled through NSCC. The electronic platform, available through mainframe communications or a web-based service, enables organizations to manage transactions from order entry through post-settlement regulatory reporting and to receive immediate confirmation of trade execution. NSCC currently requires trades to be matched by 11:30AM ET on T+2. This will be changed to 9:00PM ET on T for trades to be eligible for NSCC and DTCs Night Cycle processing. NSCC will accept trades up to 1:30PM ET on T+1 to be eligible for current settlement date processing.

Activities to Update Trade Matching Processes

Activities to Update Trade Matching Processes			
#	**Implementation Steps**	**Organization Participants (Front, Middle, Back, IT, Vendor)**	**Supporting Systems**
1	Ensure that systems and reference data related to trade matching are included in inventories for configuration		
2	Examine upstream system, data, and process changes to ensure that they do not interfere with the process for trade matching		

Activities to Update Trade Matching Processes			
#	**Implementation Steps**	**Organization Participants** **(Front, Middle, Back, IT, Vendor)**	**Supporting Systems**
3	Determine changes required to processes related to trade matching		
4	Coordinate changes to processes related to trade matching with internal and external stakeholders		
5	Develop test plans for trade matching		
6	Schedule and execute process changes for trade matching		

3.3.2.B. Align to Industry-Recommended Allocation Timelines

The final rule states that firms should allocate trades as soon as technologically practical but no later than end of day on T. The ISC recommended a best practice time for allocations to be completed for a move to a T+1 settlement cycle by 7:00PM ET on trade date (T) to ensure that firms have sufficient time to process confirmations and affirmations by the DTCC affirmation cutoff of 9:00PM ET on T this offers less time than the current cutoff of 11:30AM ET on T+1. To meet these new cut-off times, it is recommended that firms look to adopt technology solutions (e.g., DTCC's ITP central trade matching system (CTM, M2i) and/or messaging protocols (e.g., FIX,) to automate the communication of allocations. It is also recommended that allocations are made as soon as practicable after the execution of order to ensure sufficient time for confirmation and affirmation processing. Market participants located outside of the U.S. may need to consider options to ensure institutional trades are fully allocated by 7:00 pm ET and fully affirmed by close of the business ET. Participants should consider trade order/execution timing, available industry solutions, operational process models and location strategy to ensure the new deadlines can be

Organizations should focus on building standardized and automated trade matching and affirmation processes to reduce the number of unaffirmed trades for settlement and support the resolution of trade breaks on T. Firms relying on a manual allocation process are highly recommended to adopt technology to automate their processes.

Activities to Align to Industry-Recommended Allocation Timelines

Activities to Align Industry-Recommended Allocation Timelines			
#	**Implementation Steps**	**Organization Participants** **(Front, Middle, Back, IT, Vendor)**	**Supporting Systems**
1	Ensure that systems and reference data related to trade allocations are included in inventories for configuration		

Activities to Align Industry-Recommended Allocation Timelines			
#	Implementation Steps	Organization Participants (Front, Middle, Back, IT, Vendor)	Supporting Systems
2	Examine upstream system, data, and process changes to ensure that they do not interfere with the process for trade allocations		
3	Determine changes required to processes related to trade allocations		
4	Coordinate changes to processes related to trade allocations with internal and external stakeholders		
5	Develop test plans for trade allocations		
6	Schedule and execute process changes for trade allocation timelines		

3.3.2.C. Configure Purchase and Sales Systems (PNS) and Institutional Processing Systems for Near-Time Matching

Purchase and Sales systems must be re-configured for T+1 as standard settlement.

Activities to Configure Purchase and Sales Systems (PNS) and Institutional Processing Systems for Near-Time Matching

Activities to Configure Purchase and Sales Systems for Near-Time Matching			
#	Implementation Steps	Organization Participants (Front, Middle, Back, IT, Vendor)	Supporting Systems
1	Ensure that systems and reference data related to Purchase and Sales systems for near-time are included in inventories for configuration		
2	Examine upstream system, data, and process changes to ensure that they do not interfere with Purchase and Sales systems for trade matching		
3	Determine changes required to configure Purchase and Sales system processes for near-time trade matching		

Activities to Configure Purchase and Sales Systems for Near-Time Matching			
#	**Implementation Steps**	**Organization Participants (Front, Middle, Back, IT, Vendor)**	**Supporting Systems**
4	Coordinate changes to processes related to near-time trade matching with internal and external stakeholders		
5	Develop test plans for configuration of Purchase and Sales systems for near-time matching		
6	Schedule and execute process changes for Purchase and Sales systems for near-time matching		

3.3.3 Trade Affirmation

The affirmation deadline for institutional trade affirmation at DTCC is changing from 11:30AM ET on T+1 to 9:00PM ET on T. This will impact the cut-off time for straight-through submission of affirmed trades to DTC and NSCC for processing. For confirms that are not affirmed by the 9:00PM ET on T cutoff, the deliverer can send deliver orders (NDOs) to settle these trades in the DTC night cycle and if the night cycle is missed, they can send day deliver orders (DOs) to settle these trades in the DTC Day cycle.

The reverse affirmation deadline for institutional trades is changing from its current 11:30AM ET on T+1 cutoff to 9:00PM ET on T.

3.3.3.A. Review Trade Affirmation Processes

Organizations need to review trade affirmation processes and make changes as required to ensure settlement on T+1. The affirmation deadline at DTCC will be changed to 9:00PM ET on T from its present 11:30AM ET on T+1 cutoff. Firms will need to update technology systems and processes to accommodate the new affirmation cut-off.

Industry participants are recommended to adopt technology (e.g., DTCC's ITP CTM) and/or messaging protocols (e.g., FIX) to automate the communication of allocations and CTM's M2i to facilitate more timely trade affirmations.

Activities to Review Trade Affirmation Processes

Activities to Review Trade Affirmation Processes			
#	**Implementation Steps**	**Organization Participants (Front, Middle, Back, IT, Vendor)**	**Supporting Systems**
1	Ensure that systems and reference data related to trade affirmation are included in inventories for configuration		
2	Examine upstream system, data, and process changes to ensure that they do not interfere with the process for trade affirmation		
3	Determine changes required to processes related to trade affirmation and new cutoff time		
4	Coordinate changes to processes related to trade affirmation with internal and external stakeholders		
5	Develop test plans for affirmed and unaffirmed eligible institutional trade submission, prime broker transactions, and ID Net transactions		
6	Schedule and execute process changes for affirmed trade submission		
7	Utilize services (e.g., ITPs M2i) to achieve maximum affirmations		

3.3.3.B. Changes to the Timing of NSCC's CNS Projection Reports

Organizations should consider the impact of changes to the CNS Projection Report timing and its impact on their processes. Organizations need to update their processes to account for the new timings of NSCC's Projection Reports as part of a move to T+1 settlement. The CNS Projection Report that is distributed today at 12:30AM ET on T+1 will be changed to 2:00AM ET on T+1. The NSCC CNS midday projection file is moving from its current 12:00PM ET distribution on T+1 to 5:00PM ET on T+1. The NSCC CNS position prior to Night Cycle report's current distribution time is 7:30PM ET on T+1 and will be distributed at 9:45PM ET on T. The CNS position prior to the Day Cycle is moving from its current 12:30AM ET on T+1 distribution to 2:00AM ET on T+1.

Activity #	Activity Name	Current State Time	Future State Target Time
1	CNS Projection Report	12:30AM ET on T+1	2:00AM ET on T+1

Activity #	Activity Name	Current State Time	Future State Target Time
2	NSCC CNS Midday Projection File	12:00PM ET on T+1	5:00PM ET on T+1
3	NSCC CNS Position Report (prior to Night Cycle report)	7:30PM ET on T+1	9:45PM ET on T
4	NSCC CNS Position Report (prior to the Day Cycle)	12:30AM ET on T+1	2:00AM ET on T+1

Activities for Changes to the Timing of NSCCs CNS Projection Reports

Activities for Changes to the Timing of NSCCs CNS Projection Reports			
#	**Implementation Steps**	**Organization Participants (Front, Middle, Back, IT, Vendor)**	**Supporting Systems**
1	Inventory projection reports, including created projection reports and those received and used from other organizations (i.e., cash projection reports, CNS Projection Report)		
2	Assess projection reports for changes from T+1 settlement		
3	Determine if settlement date changes to projection reports will be automatically captured or need to be manually updated		
4	Coordinate changes to projection reports with internal and external stakeholders		
5	Develop test plans for activities related to projection Reports		
6	Schedule and execute changes for projection reports		

3.3.3.C. Align to Industry-Recommended Affirmation Timelines

While the move to T+1 will require a new DTCC affirmation cut-off time of 9:00PM ET on trade date, the IWG recommends that trades are allocated as soon as practicable or at the latest 7:00 PM ET on trade date. After an order is executed to members, they should ensure that they have sufficient time for confirmation and affirmation processing. Market participants located outside of the U.S. may need to consider options to ensure institutional trades are fully allocated by 7:00 pm ET and fully affirmed by close of the business ET. Participants should consider trade order/execution timing, available industry solutions, operational process models and location strategy to ensure the new deadlines can be met.

Activities to Align to Industry-Recommended Affirmation Timelines

Activities to Align Industry-Recommended Affirmation Timelines			
#	**Implementation Steps**	**Organization Participants (Front, Middle, Back, IT, Vendor)**	**Supporting Systems**
1	Ensure that systems and reference data related to trade affirmations are included in inventories for configuration		
2	Examine upstream system, data, and process changes to ensure that they do not interfere with the process for trade affirmations		
3	Determine changes required to processes related to trade affirmations		
4	Coordinate changes to processes related to trade affirmations with internal and external Stakeholders		
5	Develop test plans for trade allocations, confirmations, and affirmations		
6	Schedule and execute process changes for trade affirmation timelines		

3.3.3.D. Standardize Communication Protocols Among Affirming Parties

Many firms continue to rely on manual or outdated communication methods (e.g., emails, faxes) to complete trade settlement. These inefficient communication channels contribute to errors and delay trade settlement. The move to T+1 settlement will require the adoption of technology (e.g., DTCC's ITP CTM/M2i) and/or messaging protocols (e.g., FIX) to automate the communication of allocations and remove the additional risk that comes from manual data communication methods.

Activities to Standardize Communication Protocols Among Affirming Parties

Activities to Standardize Communication Protocols Among Affirming Parties			
#	**Implementation Steps**	**Organization Participants (Front, Middle, Back, IT, Vendor)**	**Supporting Systems**
1	Ensure that systems and reference data related to communication protocols among affirming parties are included in inventories for configuration (i.e., Trade Order Management Solution (TOMS), UTC)		

#	Implementation Steps	Organization Participants (Front, Middle, Back, IT, Vendor)	Supporting Systems
Activities to Standardize Communication Protocols Among Affirming Parties			
2	Determine changes required for affirming parties and relevant communication protocols		
3	Coordinate changes to processes related to affirming parties' communication protocols with internal and external stakeholders (e.g., FIX)		
4	Develop test plans for standardized communication protocols among affirming parties		
5	Schedule and execute process changes for standardization of communication protocols among affirming parties		

3.3.4 Physical Securities

3.3.4.A. Decommission of Physical Securities

There are ongoing industry efforts to eliminate both the issuance and handling of physical securities. Market participants may consider and assess the decommission of physical securities for T+1 settlement. This exercise will determine organization's feasibility to achieve full dematerialization.

Activities to Decommission Physical Securities

#	Implementation Steps	Organization Participants (Front, Middle, Back, IT, Vendor)	Supporting Systems
Activities to Decommission Physical Securities			
1	Inventory platforms supporting physical securities delivery		
2	Determine platforms supporting physical securities delivery impacted by T+1 implementation		
3	Assess changes required to decommission platforms supporting physical securities delivery for T+1 settlement		

Activities to Decommission Physical Securities			
#	**Implementation Steps**	**Organization Participants (Front, Middle, Back, IT, Vendor)**	**Supporting Systems**
4	Determine responsibility for platform changes (proprietary vs. external vendor and service bureau)		
5	Coordinate platform changes with internal and external stakeholders		
6	Develop test plans for decommissioning physical securities delivery		
7	Schedule and execute changes to decommission physical securities		

3.3.4.B Adjust Processes and Systems Related to Physical Securities

If market participants are unable to fully decommission physical securities, then review and enhancement of processes related to physical securities may be required for T+1 settlement. Given the time constraint present in T+1, firms will be required to have previously located physical securities and ensure those securities are in DTC in street name by settlement date.

Activities to Adjust Processes and Systems Related to Physical Securities

Activities to Adjust Processes and Systems Related to Physical Securities			
#	**Implementation Steps**	**Organization Participants (Front, Middle, Back, IT, Vendor)**	**Supporting Systems**
1	Inventory platforms supporting physical securities delivery		
2	Determine platforms supporting physical securities delivery impacted by T+1 implementation		
3	Assess changes required to platforms supporting physical securities delivery for T+1 settlement		
4	Determine responsibility for platform changes (proprietary vs. external vendor and service bureau, issuers)		
5	Coordinate platform changes with internal and external stakeholders		

Activities to Adjust Processes and Systems Related to Physical Securities			
#	**Implementation Steps**	**Organization Participants (Front, Middle, Back, IT, Vendor)**	**Supporting Systems**
6	Develop test plans for physical securities delivery for T+1 settlement		
7	Schedule and execute changes to physical securities for T+1		

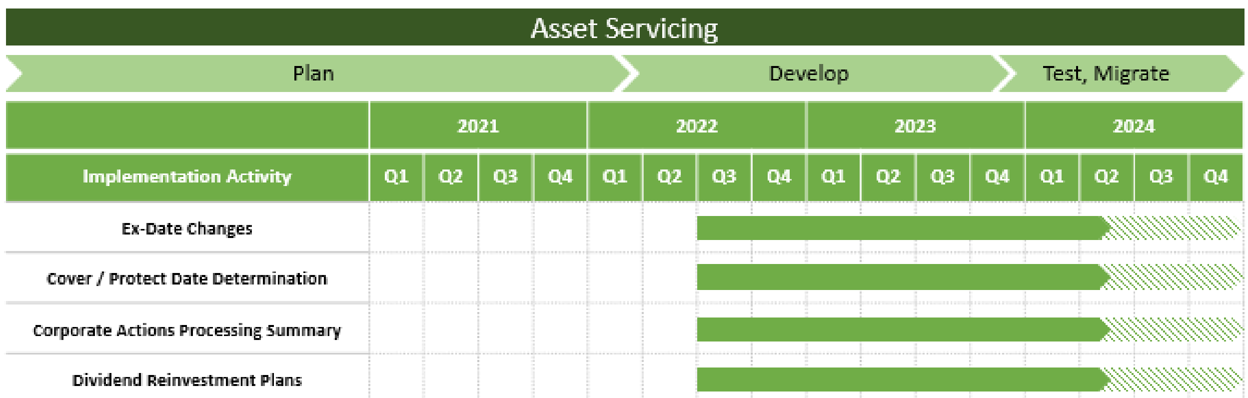
4 Asset Servicing

4.1 Introduction

The move to T+1 settlement will require changes to asset servicing functions impacted by the shortened settlement period to comply with new and revised regulations. To guide organizations implementing the T+1 settlement cycle, implementation activities related to asset servicing have been identified below.

4.2 Timeline and Milestones

The following timeline illustrates the asset servicing implementation activities and milestones necessary to meet a May 28, 2024, U.S. T+1 implementation:



4.3Impact Assessment and Implementation Considerations

The dimensions detailed below should be considered related to asset servicing in a T+1 settlement:

Dimension	Impacted?	Description
Business Model	None	Changes related to asset servicing functions are not expected to have a large impact on organization's business models.
Product Type	Potential Impact	Impacted products could experience income payment errors and operational issues if T+1 ruled ex-dates are not updated for T+1. This requires organizations to evaluate and enhance current-state announcements with ex-dates, notification announcement processes for all corporate actions and due bill processing. In addition, businesses should determine the impact a shortened cover/protect period has on their processes.
Vendor & Service Bureau Support	Potential Impact	To minimize risk to their customer organizations, vendors and service bureaus should properly update processes and systems related to ex-dates and cover/protect dates on their event announcements. This includes reviewing and enhancing, if necessary, data sources, notification announcements, due bill

Dimension	Impacted?	Description
		processing, interim accounting processes, liabilities related to reorganization events and stock record balances.
Trading Venue	Potential Impact	Trading venues that do not properly update their rule set to establish the ex-date for listed securities could cause risk (e.g., security pricing, entitlements, out of balances, etc.) to participating organizations.
Risk & Compliance	Potential Impact	Risk (e.g., financial, reputational) and compliance issues related to corporate actions (e.g., dividends, stock splits) may occur if ex-date entitlements, notifications, and data are not updated to reflect the shortened settlement cycle. The DTC interim account processes should be updated to prevent any issues related to due bill processing. Regarding cover/protect period following an event expiration, organizations should review and modify reorganization announcements, inclusive of voluntary reorganization instruction applications, internal processing systems responsible for passing liabilities from one party to another, and the stock record platform to account for positions in different "boxes."
Customer Experience	Potential Impact	Incorrect ex-dates or interim accounting data may cause upstream and downstream implications for internal functions (e.g., reconciliation, income processing) and impact external clients (e.g., client statements, processing errors). Organizations face financial and reputational risk with incorrect ex-dates causing erroneous pricing and the incorrect party receiving the distribution proceeds. The passing of liabilities related to voluntary reorganization event expirations including cover/protect date processing should be updated for internal functions to avoid impacting clients (e.g., missing elections to participate in voluntary corporate action events, financial loss, etc.).
Technology Enablers	Potential Impact	Organizations should evaluate and, if necessary, enhance technology platforms that support corporate action announcements, pricing, and stock records (i.e., passing of liabilities).

The participants impacted table below indicates which industry participants are most likely impacted by asset servicing:

Participants Impacted	Buy-Side	✓	Sell-Side	✓
	Custodian	✓	Vendor	✓

4.3.1. Ex-Date Changes

Corporate actions, such as rights, warrants, and income distributions that occur on securities that are traded at securities exchanges, will trade either with the distribution or without the distribution near the time of the event's record date. To determine when the security is traded without the distribution, the securities exchange will establish (or referred to as "rule") an ex-dividend date (ex-date) where the price of the security is adjusted by the amount of the distribution. In the current T+2 settlement cycle typically the regular-way ex-date will occur prior to the record date of the event, falling on the trading day before the record date whereas irregular-way ex-date occurs when ex-date is ruled after record date.

In a T+1 environment, ex-date and record date would be the same, commonly referred to as "regular way ex-date." With regular way ex-date, due bills are not necessary as any trade entitled to the dividend would be settled on record date. However, due bills are required for any ex-date that is not a regular way ex-date. The exchanges set ex-dates and typically will set a later ex-date (e.g., day after payment date) for stock or large cash dividends that exceed 15-25% of the value of the stock. This practice helps to maintain market values because in a regular way ex-date, the price would typically drop by the value of the dividend on ex-date; however, the proceeds would not be paid until later. This undervalues the stock and impacts portfolio modeling and purchasing power. Any irregular ex-date would still require a due bill. Organizations must adjust the ex-date period for regular way ex-date and modify the due bill period calculation for regular way and irregular ex-dates.

4.3.1.A. Configure Ex-Date Changes

A move to T+1 settlement will subsequently move the ex-date to the day of the record date of the event. For T+2, the ex-date is calculated as T+1; for accelerated settlement, ex-date will fall on T. Most organizations rely on supplied ex-date information from vendors and service bureaus, depositories, or transfer, paying agents and needs to adjust systems and processes for capturing the provided ex-date information. Organizations that rely on asset masters to derive ex-date entitlements should perform a review of logic used in systems and make process modifications.

Activities to Configure Ex-Date Changes

Activities to Configure Ex-Date Changes			
#	Implementation Steps	Organization Participants (Front, Middle, Back, IT, Vendor)	Supporting Systems
1	Identify and inventory instances where ex-dates are generated or received		

Activities to Configure Ex-Date Changes			
#	**Implementation Steps**	**Organization Participants (Front, Middle, Back, IT, Vendor)**	**Supporting Systems**
2	Conduct conversations with vendors and service bureaus to ensure that ex-dates are captured, tested, and approved		
3	Assess changes required to systems for capturing ex-dates		
4	Review processes for corporate action events to determine impact of ex-date changes		
5	Examine impact of ex-date changes to compliance and oversight requirements		
6	Ensure materials regarding T+1 ex-date implications are included in customer communication plans		
7	Develop ex-date and corporate action event test plans		
8	Schedule and execute ex-date changes		

4.3.1.B. Adjust Ex-Date Notification Announcement Systems

To process regular way ex-date notifications and irregular ex-date notifications properly, impacted organizations must make changes to their announcement systems or work with their vendor/service bureau to ensure the changes are properly applied. Organizations need to adjust ex-date notification announcement systems for T+1 settlement to ensure proper entitlements are calculated for corporate action events.

Activities to Adjust Ex-Date Notification Announcement Systems

Activities to Adjust Ex-Date Notification Announcement Systems			
#	**Implementation Steps**	**Organization Participants (Front, Middle, Back, IT, Vendor)**	**Supporting Systems**
1	Identify announcement systems used for ex-date notifications		
2	Determine impact to ex-date notifications and announcement systems for T+1 settlement		

Activities to Adjust Ex-Date Notification Announcement Systems			
#	**Implementation Steps**	**Organization Participants (Front, Middle, Back, IT, Vendor)**	**Supporting Systems**
3	Coordinate ex-date notification and announcement system changes with internal and external stakeholders		
4	Develop ex-date notification and announcement system test plans		
5	Schedule and execute announcement system changes		
6	Communicate changes to ex-date notifications and announcement system changes to external organizations		

4.3.1.C. Modify Internal Processing Systems that Calculate Ex-Dates

Organizations that derive the ex-date from internal trade processing systems must modify those systems to account for the shortening of the ex-date period and address the downstream processing of that information.

Organizations should consider adopting corporate action solutions that automate ex-date calculations and ingest amendments into stock records.

Activities to Modify Internal Processing Systems that Calculate Ex-Dates

Activities to Modify Internal Processing Systems that Calculate Ex-Dates			
#	**Implementation Steps**	**Organization Participants (Front, Middle, Back, IT, Vendor)**	**Supporting Systems**
1	Ensure that systems and reference data related to ex-date calculations are included in inventories for configuration		
2	Evaluate the impact on downstream processes (internal and external) for system and ex-date calculation changes		
3	Determine responsibility for ex-date calculation changes (proprietary vs. external vendor and service bureau)		
4	Coordinate changes with internal and external stakeholders		

Activities to Modify Internal Processing Systems that Calculate Ex-Dates			
#	**Implementation Steps**	**Organization Participants (Front, Middle, Back, IT, Vendor)**	**Supporting Systems**
5	Develop internally calculated ex-date test plans (consider how to make changes on T+1 migration date while continuing T+2 settlement operations)		
6	Schedule and execute changes related to internal ex-date calculations		

4.3.1.D. Adjust Due Bill Processing

The due bill redemption period (i.e., irregular-way ex-dates) must be shortened by one business day. The due bill redemption date will now fall on ex-date, with securities allocated to market participants on ex-date +1. The processing of securities carrying a due bill will need to be adjusted for T+1 settlement. This includes ex-date notifications as well as the redemption of instruments with a due bill attached.

Activities to Adjust Due Bill Processing

Activities to Adjust Due Bill Processing			
#	**Implementation Steps**	**Organization Participants (Front, Middle, Back, IT, Vendor)**	**Supporting Systems**
1	Ensure that systems and reference data related to due bill processing are included in inventories for configuration		
2	Determine changes required for due bill processing		
3	Coordinate due bill processing changes with internal and external stakeholders		
4	Develop test plan for due bill processing		
5	Schedule and implement due bill processing changes		

4.3.1.E. Modify Interim Accounting Processes

DTC must modify the DTC interim accounting process to account for the shortened period. In addition, organizations need to modify interim accounting processes for T+1 settlement. Interim accounting is an important part of the entitlement and allocation process. The interim accounting period is defined as the period during which a trade settling has income (e.g., interest, dividend) or a due bill attached to it. This period extends from the record date plus one day up to the due bill redemption date, which will be equal to the event's ex-date.

During the interim accounting period, DTC facilitates the entitlements and allocation process (DTC's Distribution Service) systematically for both the buyer and seller of a transaction (at the omnibus level). Without DTC's interim accounting process, trades that will settle after the record date "with distribution" (those that entitle the receiver to the distribution) will have a due bill or income payment attached that sits with the incorrect market participant. The distribution entitlement will then need to be handled between the seller and the buyer of the security outside of DTC's Distribution Processing Service in the form of a special payment order, wire, or postdated check equal to the amount of the distribution.

To prepare for the migration to T+1 settlement, DTC needs to review and modify the interim accounting process to account for the shortened period and verify that income entitlement and tracking processes (e.g., due bill fail tracking, stock loan income tracking, and repo income tracking) are adjusted and functioning properly. Similarly, organizations should review their income entitlement capture and income allocation processing systems.

Activities to Modify Interim Accounting Processes

Activities to Modify Interim Accounting Processes			
#	**Implementation Steps**	**Organization Participants (Front, Middle, Back, IT, Vendor)**	**Supporting Systems**
1	Ensure that systems and reference data related to interim accounting are included in inventories for configuration		
2	Evaluate the impact on downstream processes (internal and external) for interim accounting process changes		
3	Determine responsibility for interim accounting process changes (proprietary vs. external vendor and service bureau)		
4	Coordinate interim accounting process changes with internal and external stakeholders		
5	Develop interim accounting testing plans		
6	Schedule and execute changes related to interim accounting		

4.3.2. Cover/Protect Date Determination

A T+1 settlement cycle will likely impact trading practices around the expiration dates of certain voluntary corporate action events (e.g., tender offers, exchange offers, rights subscriptions). The issuer may often offer a Guarantee of Delivery feature that allows investors to purchase securities on the offer's expiration date and still participate in the offer while their securities are in the process of settling. This is also known as the cover/protect period where purchased, yet-to-settle securities are instructed in the form of a protect and then that protect is subsequently "covered" once the securities settle. Typically, this cover/protect period is aligned to the market's settlement cycle; however, there are exceptions where the time to cover a protect may be shorter or longer. The period is ultimately defined by the issuer and described in detail in the event's offering materials. In the current cover/protect process, there are pain points that exist based on obligations due to trading fails, where liability letters are often passed between industry participants as well as collateral financing transactions (e.g., security loans, borrows). In a T+2 settlement cycle, the cover/protect period is often expiration date plus two (2) trading days. In a T+1 settlement cycle, the cover/protect period will be the expiration date plus one (1) trading day.

4.3.2.A. Review Reorganization Announcement Platform

DTC receives offering information from issuers/agents and adds the cover/protect dates on the event announcement based on what is defined within the offering materials. The dates within the Participant Tender Offer Program (PTOP) and the Participant Subscription Offer Program (PSOP) are updated based on the event announcement to ensure that the cover/protect date (last day to cover protects) is reflected properly based upon what is detailed in the offering documentation.

Organizations will need to review their reorganization announcement platforms for T+1 settlement. Certain voluntary corporate reorganizations (e.g., tenders, rights offering) will provide the holder of the security participating in the event the ability to guarantee the delivery (protect) of the security a set number of days after the expiration of the offer. This "protect period" is typically set by the number of days it takes a security to settle. In the past the delivery period was two-days in a T+2 settlement cycle and with the move to a T+1 settlement, the protect window should also shift to a one-day period.

Activities to Review Reorganization Announcement Platform

Activities to Review Reorganization Announcement Platforms			
#	**Implementation Steps**	**Organization Participants (Front, Middle, Back, IT, Vendor)**	**Supporting Systems**
1	Ensure that reorganization announcement platforms and reference data are included inventories for configuration		
2	Evaluate the impact to downstream systems and processes (internal and external) for reorganization announcement platform changes		
3	Determine responsibility for reorganization announcement platform changes (proprietary vs. external vendor and service bureau)		
4	Coordinate reorganization announcement platform changes with internal and external stakeholders		

Activities to Review Reorganization Announcement Platforms			
#	**Implementation Steps**	**Organization Participants (Front, Middle, Back, IT, Vendor)**	**Supporting Systems**
5	Develop test plans for reorganization announcement platforms		
6	Schedule and execute changes related to reorganization announcement platforms		

4.3.2.B. Modify Voluntary Reorganization Processing Applications

NSCC will require modifications to its voluntary reorganization processing application within its CNS system to accommodate this change.

Organizations need to modify voluntary reorganizations processing applications for T+1 settlement. In T+2, late instructions and late trades typically involved manual processes. However, in T+1, all manual processes are encouraged to be automated. For example, leveraging instruction automation through your service provider can reduce manual processing.

Activities to Modify Voluntary Reorganization Processing Applications

Activities to Modify Voluntary Reorganization Processing Applications			
#	**Implementation Steps**	**Organization Participants (Front, Middle, Back, IT, Vendor)**	**Supporting Systems**
1	Ensure that systems and reference data related to voluntary reorganization processing are included in inventories for configuration		
2	Evaluate the impact to downstream processes (internal and external) for voluntary reorganization processing changes		
3	Determine responsibility for voluntary reorganization process changes (proprietary vs. external vendor and service bureau)		
4	Coordinate voluntary reorganization processing changes with internal and external stakeholders		
5	Develop test plans for voluntary reorganization processing applications and voluntary reorganization event processing		

Activities to Modify Voluntary Reorganization Processing Applications			
#	Implementation Steps	Organization Participants (Front, Middle, Back, IT, Vendor)	Supporting Systems
6	Schedule and execute changes related to voluntary reorganization processing		

4.3.2.C. Update Internal Processing Systems that Consume Cover/Protect Dates

Organizations that internally derive the cover/protect date must ensure that their systems are updated to calculate cover/protect date as offer expiration plus one business day. Firms will need to update internal processing systems that calculate cover/protect dates for T+1 settlement. At the same time, it is recommended that firms explore opportunities for a vendor solution where both counterparties can post the original fails and transform these fails/obligations in automatically generated liabilities.

Activities to Update Internal Processing Systems that Consume Cover/Protect Dates

Activities to Update Internal Processing Systems that Consume Cover/Protect Dates			
#	Implementation Steps	Organization Participants (Front, Middle, Back, IT, Vendor)	Supporting Systems
1	Ensure that systems and reference data related to cover/protect date calculations are included in inventories for configuration		
2	Evaluate the impact on downstream processes (internal and external) for system and process changes related to cover/protect date calculations		
3	Determine responsibility for cover/protect date calculation changes (proprietary vs. external vendor and service bureau)		
4	Coordinate changes with internal and external stakeholders		
5	Develop internally calculated cover/protect date test plan		
6	Schedule and execute changes related to internal cover/protect date calculations		

4.3.2.D. Adjust Stock Record Platforms as Necessary

Organizations must adjust their stock record platforms as necessary for T+1 settlement.

Activities to Adjust Stock Record Platforms as Necessary

Activities to Adjust Stock Record Platforms as Necessary			
#	**Implementation Steps**	**Organization Participants (Front, Middle, Back, IT, Vendor)**	**Supporting Systems**
1	Ensure that systems and reference data related to stock record platforms are included in inventories for configuration		
2	Evaluate the impact on downstream processes (internal and external) for system and process changes related to modification of stock record platforms		
3	Determine responsibility for stock record changes (proprietary vs. external vendor and service bureau)		
4	Coordinate stock record changes with internal and external stakeholders		
5	Develop internally calculated stock record test plan		
6	Schedule and execute changes related to modification of stock record platforms		

4.3.3. Corporate Actions Processing Summary

Organizations need to review corporate actions processes for T+1 settlement. This operational area presents a significant amount of financial and reputational risk for organizations. Vendors and service bureaus that incorrectly calculate an entitlement or incorrectly announce a cover/protect date could cause risk (e.g., financial, reputational) to their customer organizations. Incorrect entitlement or cover/protect date processing also may impact external clients (e.g., missing elections to participate in voluntary corporate action events, financial loss).

Each event type has activities that should be assessed and potentially executed to be compliant with T+1 settlement. These include ex-date and cover/protect date announcements, for which activities are discussed in previous sections of the Playbook. The event types included are:

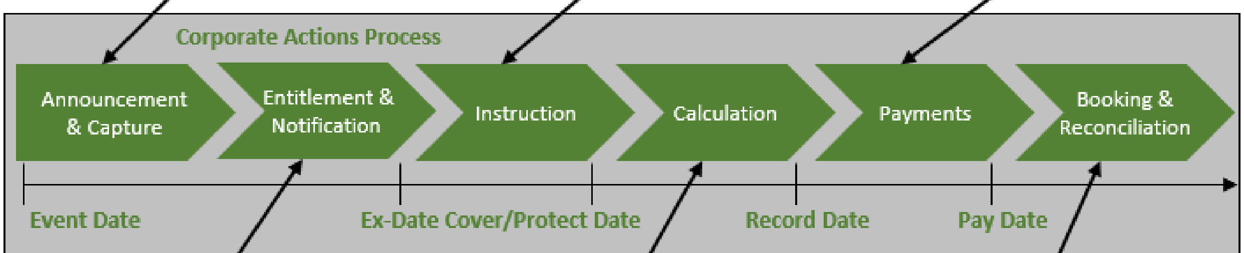
- Voluntary Reorganizations
- Mandatory Reorganizations
- Distributions

An overview of the corporate actions processing lifecycle with changes and considerations for the T+1 shortened settlement cycle implementation can be found below:

- Vendors and service bureaus should assess delivery systems and incorporate T+1 information into announcements (e.g., ex- dates, cover/protect dates).
- Organizations receiving announcement via vendor or service bureau feed should consider regression testing to ensure continuity of down- stream processing.
- Organizations should consider distinct processing for various corporate action types (e.g., mandatory, voluntary, income).
- Internal payment schedule calculations should be tested for announcements without vendor or service bureau feeds.

- Cover/protect date calculations for voluntary corporate actions need to be shortened for T+1 settlement.
- Organizations should consider evaluating stock borrow positions to reduce exposure to counterparty risk based on the shortened T+1 cover/protect period.
- Organizations should review securities lending processes and procedures for T+1 settlement.

- Systems and operations that support dividend reinvestment processes should be reviewed and adjusted for T+1.
- Organizations should review standardization with settlements on the underlying and ADRs on global markets, as well as cross-currency funding (EU markets are already at T+2, some Asian markets will remain at T+3).



- Eligible positions need to be established based on T+1 ex- dates for mandatory and income corporate actions.
- Trading systems need to update positions based on T+1 ex-dates.
- Organizations need to update client notifications for voluntary corporate actions for T+1 settlement.

- Ex-date calculations need to be shortened to record date -1.
- In-house systems for delivery versus payment and receipt versus payment transaction and dividend reinvestment processing should be reviewed by organizations.
- Calculations for "take-off sheet" adjustments need to be shortened to T+1.
- Dividend reinvestment calculations need to be adjusted for T+1.
- Mandatory warrants and rights distributions need to be timely based on T+1 ex-dates.

- Organizations should review position booking systems for coding related to settlement date and adjustments for T+1.
- Organizations should review reconciliation systems that ensure proper processing and make adjustments for T+1.
- Changes to client messaging and reporting requirements for T+1 should be considered.

4.3.4. Dividend Reinvestment Plans

4.3.4.A. Assess Dividend Reinvestment Plans

As the industry transitions to a T+1 settlement environment, organizations will need to assess processes related to Dividend Reinvestment Plans (DRIPs) to determine which operational processes used to support DRIPs require enhancements to account for the shortened settlement cycle.

The industry should work with the appropriate regulatory bodies to determine the scope of required document changes (re-papering). Issuers should review DRIP documents for mention of T+2, which may need to be amended and re-sent to plan participants.

In-house proprietary DRIPs will need to adjust their procedures to account for the shortened settlement cycle.

Activities to Assess Dividend Reinvestment Plans

Activities to Assess Dividend Reinvestment Plans			
#	**Implementation Steps**	**Organization Participants (Front, Middle, Back, IT, Vendor)**	**Supporting Systems**
1	Determine required changes for DRIPs due to T+1 settlement		
2	Determine required changes to issuance of DRIP shares (if open market purchases)		
3	Determine required changes to DRIP communications resulting in shortened settlement cycle		
4	Develop test plans for DRIP changes for T+1 settlement		
5	Schedule and execute changes prior to T+1 settlement		
6	Advise plan participants of changes to DRIP functionality		

5 Documentation

5.1 Introduction

The requirements around documentation for the move to T+1 settlement can be organized into three areas, including external documentation, internal documentation, and customer and staff education:

- **External documentation** including client-facing documents such as client statements, product sheets, prospectuses, and agreements, as well as documents informing clients of the new settlement timeline and changes to an organization's practices, should be revised for references to the settlement date. Additionally, external service agreement documentation for utilities, vendors, and service bureaus, such as product sheets, contracts, service level agreements and fee schedules, should be revised for references to the settlement date or extensions beyond settlement for subsequent processes.
- **Internal documentation** such as written agreements or policies and procedures should be updated to reflect changes to processes and new cut-off times for T+1 settlement. System process documentation, internal control documentation, operations documentation, and exception handling documentation should be considered for updates.
- **Customer education and staff training materials** should be reviewed and revised for T+1 settlement. Compliance training, certification programs, and manuals should be reviewed and updated to reference the shortened settlement cycle, and employee awareness documents should be updated to acknowledge the move to T+1 settlement. Information that appears on an organization's intranet and internet websites should also be updated.

The list of documents below is included to assist with an organization's documentation assessment. The list is not meant to be comprehensive of potential documents that could be impacted. Organizations should use this as a framework to perform their own assessment and generate an organization specific list of documents that need to be updated for T+1 implementation.

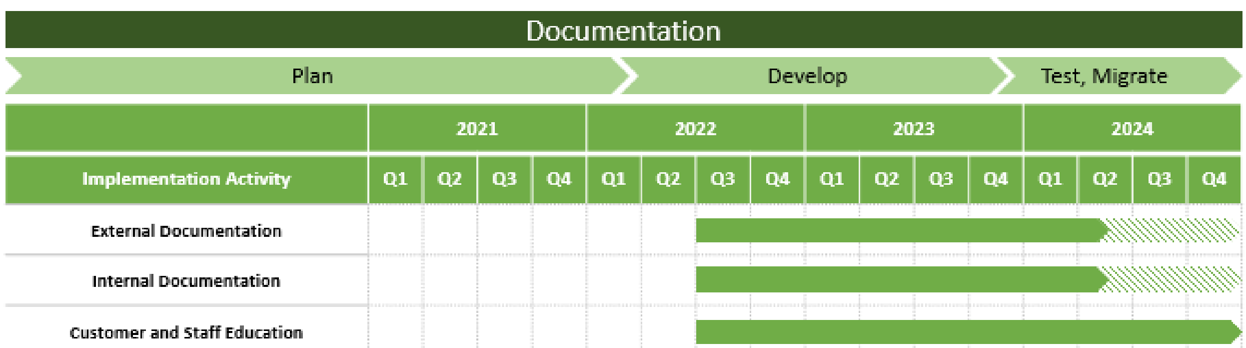
Documentation				
Reference	**Document(s)**	**Internal**	**External**	**T+1 Impact (Yes/No)**
5.1.A	10b-10 Confirmations	X	X	
5.1.B	Balance Restriction Documentation		X	
5.1.C	Client Account Opening Documents		X	
5.1.D	Client Account Statements and Disclosures		X	
5.1.E	Corporate Actions Notifications		X	
5.1.F	Custody and Sub-Custody Documents		X	
5.1.G	Fund Prospectus and Statements		X	
5.1.H	Letter of Transmittal for Voluntary Corporate Actions		X	

Documentation				
Reference	**Document(s)**	**Internal**	**External**	**T+1 Impact (Yes/No)**
5.1.I	Loan Agreements (e.g., Master Securities Loan Agreement, Master Securities Loan Agreement, and International Securities Lending Association (ISLA))		X	
5.1.J	Margin Call Notifications		X	
5.1.K	Notices of Execution	X	X	
5.1.L	Product Issuance Documents for Rights and Warrants		X	
5.1.M	Reinvestment Agreements and DRIP Documents		X	
5.1.N	Stock Loan Recall Notices		X	
5.1.O	Trading Relationship Agreements (e.g., ETFs)		X	
5.1.P	CNS ID Net Announcements	X	X	
5.1.Q	Subscription Documentation	X	X	
5.1.R	Transfer Agent Announcements	X	X	
5.1.S	Utility, Vendor, and Service Bureau Product Guides	X	X	
5.1.T	Vendor and Service Bureau Contracts and Service Agreements	X	X	
5.1.U	Standard Settlement Instructions	X	X	
5.1.V	Accounting Policies	X		
5.1.W	Internal Control and Compliance Documentation	X		
5.1.X	Operating Procedure Documentation	X		
5.1.Y	Trading, Liquidity, and Cash Flow Models	X		
5.1.Z	Client Awareness Brochures	X	X	
5.1.AB	Customer and Internal T+2 to T+1 Notices	X	X	
5.1.AC	Internal Training Materials	X		
5.1.AD	Internet and Intranet Information	X	X	
5.1.AE	Qualified Institutional Buyer (QIB) documentation	X	X	
5.1.AF	Customer and internal settlement notices	X	X	
5.1.AG	New accounts	X	X	

Documentation				
Reference	**Document(s)**	**Internal**	**External**	**T+1 Impact (Yes/No)**
5.1.AH	System administrative messages (e.g., CNS ID Net announcements, Transfer Agent announcements)	X	X	
5.1.AI	Client account agreements	X	X	
5.1.AJ	Agreement between PB and EB (typically Form 150)	X	X	
5.1.AK	Securities loan agreements (e.g., NSKA, Master Securities Loan Agreement, and ISLA)	X	X	
5.1.AL	Trading relationship agreements (e.g., ETFs, Employee Stock Ownership Plans)	X	X	
5.1.A.J	Global Master Repurchase Agreements	X	X	

5.2 Timeline and Milestones

The following timeline illustrates the documentation implementation activities and milestones necessary to meet a May 28, 2024, U.S. T+1 implementation:



5.3 Impact Assessment and Implementation Considerations

The dimensions detailed below should be considered by the indicated participants related to documentation in a T+1 settlement:

Dimension	Impacted?	Description
Business Model	None	Changes in the documentation are not expected to have a large impact on organization's business models.
Product Type	Potential Impact	Impacted products and related services could be misrepresented to clients if documents that reference in-scope products are not updated for T+1.
Vendor & Service Bureau Support	Potential Impact	Vendors and service bureaus that do not properly update documentation provided to their customer organizations or

Dimension	Impacted?	Description
		those organization's clients could cause risk (e.g., financial, reputational, and regulatory) to those organizations.
Trading Venue	Potential Impact	References to the T+2 settlement cycle in the operating procedures and internal control documentation will not align to updated rules of trading venues.
Risk & Compliance	Potential Impact	Risk (e.g., financial, reputational) and compliance issues related may occur if documentation is not updated to reflect the shortened settlement cycle.
Customer Experience	Potential impact	Incorrect documentation may cause reputational damage to an organization and impact clients by potential misinformation. Potential fines and financial liabilities could result from client losses on actions that were based on misinformation from inaccurate documentation. In addition, it is important to have controls in place for documentation procedures. E-delivery can help with risk management.
Technology Enablers	Potential Impact	Issues may occur across an organization's technology platforms if reference data and systems that populate documentation are not comprehensively updated for T+1.

The participants impacted table below indicates which industry participants are most likely impacted by documentation:

Participants Impacted	**Buy-Side**	✓	**Sell-Side**	✓
	Custodian	✓	**Vendor**	✓

5.3.1. External Documentation

Agreements, official statements, prospectuses, statements of additional information, and subscription documentation must be updated to accommodate the move to T+1.

5.3.1.A. Update External Client-Facing Documentation

Agreements, official statements, prospectuses, statements of additional information, and subscription documentation that support the trade processing infrastructure and include references to standard settlement as T+2 must be updated to reference T+1. Documentation that includes "regular way settlement" should be considered T+1.

Organizations need to update external client-facing documentation related to trade clearance and settlement. These external client-facing documents will include client communications with reference to clearance and trade settlement. Particular references are related to when cash or securities will become free and available, such as product prospectuses, client account statements, account opening documents, balance restrictions, and other disclosures. In addition, specific agreements, reinvestment documents, valuation documents, or subscriptions that mention the product settlement should also be considered for updating.

Several indirect products such as mutual funds, and other instruments with underlying securities that are in scope for T+1 implementation should also have product documentation reviewed for references to regular way settlement, exceptions, valuation, pricing, reinvestments, stock recall processes, and other actions that may be impacted by the change in settlement.

The list below contains examples of external client-facing documentation that organizations should review and update:

External Client-Facing Documentation				
Reference	**Document(s)**	**Internal**	**External**	**T+1 Impact (Yes/No)**
5.3.1.A.1	10b-10 Confirmations	X	X	
5.3.1.A.2	Balance Restriction Documentation		X	
5.3.1.A.3	Client Account Opening Documents		X	
5.3.1.A.4	Client Account Statements and Disclosures		X	
5.3.1.A.5	Corporate Actions Notifications		X	
5.3.1.A.6	Custody and Sub-Custody Documents		X	
5.3.1.A.7	Fund Prospectus and Statements		X	
5.3.1.A.8	Letter of Transmittal for Voluntary Corporate Actions		X	
5.3.1.A.9	Loan Agreements (e.g., Master Securities Loan Agreement, Master Securities Loan Agreement, and ISLA)		X	
5.3.1.A.10	Margin Call Notifications		X	
5.3.1.A.11	Notices of Execution	X	X	
5.3.1.A.12	Product Issuance Documents for Rights and Warrants		X	
5.3.1.A.13	Reinvestment Agreements and DRIP Documents		X	
5.3.1.A.14	Stock Loan Recall Notices		X	
5.3.1.A.15	Trading Relationship Agreements (e.g., ETFs)		X	

Activities to Update External Client-Facing Documentation

To update external client-facing documentation, organizations should consider the following activities:

Activities to Update External Client-Facing Documentation			
#	**Implementation Steps**	**Organization Participants (Front, Middle, Back, IT, Vendor)**	**Supporting Systems**
1	Inventory external client-facing documentation that references T+2 settlement, including electronic documents and website information		
2	Inventory static data resources used for auto-populating documentation that references T+2 settlement		
3	Determine which identified documents need to be updated		
4	Create master list of required documentation changes		
5	Coordinate documentation changes with internal and external stakeholders		
6	Schedule and execute identified changes to documentation		
7	Cross-reference updates with master list of required documentation changes to ensure accuracy and completeness		

5.3.1.B. Update External Service Agreement Documentation

Organizations need to update external service agreement documentation for T+1 settlement. Vendor and service bureau documentation will include the bi-lateral contracts between organizations and vendors and service bureaus, as well as DTCC Fee Guides, Service Guides and Rules. External documents that are provided and exist outside of the organization also have internal considerations. Similar to the external client-facing documentation, organizations should review their external service agreement documentation for references to a two-day settlement period. Service agreement documentation should also be reviewed, for the change in delivery terms, to be worded consistently with the shortened settlement cycle. Documentation that references the two-day period should be updated as necessary. Agreements may need reauthorization or approval over the changes and other new terms that are introduced. Organizations should promote the adoption of Standard Settlement Instructions for T+1 settlement.

The types of external service agreement documentation that organizations should update include:

External Service Agreement Documentation				
Reference	**Document(s)**	**Internal**	**External**	**T+1 Impact (Yes/No)**
5.3.1.B.1	DTCC Rules, Service and Fee Guides	X	X	
5.3.1.B.2	Subscription Documentation	X	X	
5.3.1.B.3	Transfer Agent Announcements	X	X	
5.3.1.B.4	Utility, Vendor, and Service Bureau Product Guides	X	X	
5.3.1.B.5	Vendor and Service Bureau Contracts and Service Agreements	X	X	
5.3.1.B.6	Vendor and Service Bureau Fee Guides	X	X	
5.3.1.B.7	Standard Settlement Instructions	X	X	

Activities to Update External Service Agreement Documentation

Activities to Update External Service Agreement Documentation			
#	**Implementation Steps**	**Organization Participants (Front, Middle, Back, IT, Vendor)**	**Supporting Systems**
1	Inventory vendor and service bureau documentation that references a two-day settlement period, including agreements, service descriptions, product guides, and fee schedules		
2	Update external vendor and service bureau documentation for a one-day settlement		
3	Review, approve, re-negotiate, and re-authorize changes to documentation as necessary		
4	Test the execution of updated documentation in the delivery and pricing of services		

5.3.1.C. Determine Impact of E-Delivery for Client Groups

While the broad scale adoption of e-delivery for documentation will increase efficiency throughout the marketplace, organizations should conduct a documentation assessment to gauge which types of documents will be required to be electronically delivered to maintain compliance with regulatory standards in a T+1 settlement. Organizations should perform their own assessment and generate an inventory of documents that fall under e-delivery for T+1 implementation.

Furthermore, the move to T+1 may necessitate the need for the promotion of broad scale adoption of e-delivery as the default receipt method for trade documentation (e.g., trade confirmations, prospectuses) with the option for clients to request paper documentation post-settlement. E-delivery should become the default standard for delivering transaction documents to customers. In addition, further digitization, such as the basic PDF delivery of confirms and statements, should be encouraged by leveraging technology for these processes. This change will require the support of regulators to change existing rules regarding documentation delivery. Such regulatory change will need to address the following key areas:

- Support "access equals delivery" as a default for communication to investors (e.g., confirms, statements, prospectuses, agreements), which would satisfy the "delivery" requirement for securities documentation.
- Clarification on what constitutes "delivery" for electronic confirmations in accordance with SEC Rule 10b-10 under the Exchange Act.
- Adjust the E-Sign Act and remove rule references that trigger the (E-Sign Act) and therefore inhibit clients from receiving e-delivery of investor documents.

Activities to Determine Impact of E-Delivery for Client Groups

Activities to Determine Impact of E-Delivery for Client Groups			
#	**Implementation Steps**	**Organization Participants (Front, Middle, Back, IT, Vendor)**	**Supporting Systems**
1	Inventory vendor and service bureau documentation that is required to be delivered to clients, including agreements, service descriptions, product guides, and fee schedules		
2	Determine e-delivery procedures and documentation that references T+1 settlement		
3	Assess changes required to e-delivery procedures and documentation		
4	Coordinate changes with internal and external stakeholders		
5	Coordinate changes with client groups		
6	Schedule and execute required changes to identified e-delivery procedures and documentation		
7	Test the execution of updated e-delivery for client groups		

5.3.2.Internal Documentation

Procedure documentation and training materials must be updated to specify T+1 as standard settlement.

5.3.2.A. Adjust Operating Procedures and Internal Control Documentation

Organizations will need to adjust their operating policies and procedures, controls, and internal training materials for T+1 settlement.

Changes to the documentation should reflect the changes to operations due to the shortened settlement cycle. Standard operating procedures, internal control documentation, regulatory compliance documentation and other documentation of the policies and procedures should be revised as necessary. Organizations should consider both content and process when reviewing documentation. For example, prospectus requirements are to deliver the prospectus prior to settlement where applicable, so procedures will need to be reviewed as well as the content of documentation to be sure that the information and the delivery reflect T+1 settlement.

Accounting policy documentation based on trade date or settlement date is another area to assess. Policy documents do not typically mention the days to settlement; however, they do mention settlement date accounting. Organizations should review these documents to ensure there are no specific references to two-day settlement.

The IWG supports e-delivery as the default standard for delivering transaction documents to customers. In addition, the group supports further digitization, such as the basic PDF delivery of confirms and statements, in leveraging technology for these processes. This change would require the support of regulators to change the existing regulations regarding documentation delivery.

Documentation to be included in the consideration of changes necessary to reflect the updated operations and internal controls include:

Operating Procedures and Internal Control Documentation				
Reference	**Document(s)**	**Internal**	**External**	**T+1 Impact (Yes/No)**
5.3.2.A.1	Accounting Policies	X		
5.3.2.A.2	Internal Control and Compliance Documentation	X		
5.3.2.A.3	Operating Procedure Documentation	X		
5.3.2.A.4	Trading, Liquidity, and Cash Flow Models	X		

Activities to Adjust Operations and Internal Control Documentation

Activities to Adjust Operating Procedures and Internal Control Documentation			
#	**Implementation Steps**	**Organization Participants (Front, Middle, Back, IT, Vendor)**	**Supporting Systems**
1	Identify and inventory sources for operating procedures and control documentation		

Activities to Adjust Operating Procedures and Internal Control Documentation			
#	**Implementation Steps**	**Organization Participants (Front, Middle, Back, IT, Vendor)**	**Supporting Systems**
2	Determine operating procedures and control documentation that references T+2 settlement		
3	Assess changes required to operating procedures and control documentation		
4	Coordinate changes with internal and external stakeholders		
5	Schedule and execute required changes to identified operating procedures and control documentation		
6	Document and track changes to documentation to ensure completeness		

5.3.3. Customer and Staff Education

Organizations must educate customers and staff on how the shortened settlement window impacts their behaviors and related processes.

5.3.3.A. Educate Customers and Staff on T+1 Settlement

Organizations should educate customers and staff on how the shortened settlement window impacts them, their responsibilities, and related processes.[27] Internal training should be updated to reflect the new settlement period and operating procedures. Manuals should be reviewed for references to product settlement. Compliance training, certification, and licensing programs should also be reviewed and updated as necessary. Vendor-supplied training materials, whether electronic or hardcopy, should be reviewed for compliance with the new settlement period. Communications and documentation of the move to T+1 should be considered for both internal and external education.

Formal education and communication of the shortened settlement should begin now, as processes affecting a shortened settlement cycle should be planned months in advance of migration. Education materials could reference the current settlement period and should include precise details sufficient to educate users on the new settlement cycle.

Customer and Staff Education Documentation				
Reference	**Document(s)**	**Internal**	**External**	**T+1 Impact (Yes/No)**
5.3.3.A.1	Client Awareness Brochures	X	X	

[27] SIFMA, ICI, and DTCC will host educational material on their websites.

Customer and Staff Education Documentation				
5.3.3.A.2	Customer and Internal T+2 to T+1 Notices	X	X	
5.3.3.A.3	Internal Training Materials	X		
5.3.3.A.4	Internet and Intranet Information	X	X	

Activities to Educate Customers and Staff on T+1 Settlement

Activities to Educate Customers and Staff on T+1 Settlement			
#	**Implementation Steps**	**Organization Participants (Front, Middle, Back, IT, Vendor)**	**Supporting Systems**
1	Identify customers and staff who require education related to T+1 implementation		
2	Determine if education materials need to be updated or if new education materials need to be created		
3	Assess changes to staff training materials		
4	Assess changes to customer educational materials		
5	Develop a training plan to ensure staff are adequately trained prior to T+1 conversion		
6	Develop a communications plan to address customer needs		
7	Create or update materials for staff and customer education		
8	Train staff for T+1 implementation		
9	Distribute T+1 settlement education material to customers		

5.3.4. Written Agreements or Policies and Procedures

In the SEC's Final Rule, SEC Rule 15c6-2 will require broker-dealers to either enter into written agreements as specified in the rule or establish, maintain, and enforce written policies and procedures reasonably designed to address certain objectives related to completing allocations, confirmations, and affirmations as soon as technologically practicable and no later than the end of trade date.

5.3.4.A. Policies and Procedures

The Commission modified proposed Rule 15c6-2 to enable a broker-dealer either to (1) enter into written agreements or (2) establish, maintain, and enforce reasonably designed written policies and procedures to ensure completion of the allocation, confirmation, affirmation, or any combination thereof, for a transaction as soon as technologically practicable and no later than the end of the day on trade date, in such form as necessary to achieve settlement.

Policies and procedures should be reasonably designed to:

(b)(1): identify and describe any technology systems, operations, and processes that the broker-dealer uses to coordinate with other relevant parties, including investment advisers and custodians, to ensure completion of the allocation, confirmation, or affirmation process for the transaction.

(b)(2): set target time frames on trade date for completing the allocation, confirmation, and affirmation for the transaction.

(b)(3): describe the procedures that the broker-dealer will follow to ensure the prompt communication of trade information, investigate any discrepancies in trade information, and adjust trade information to help ensure that the allocation, confirmation, and affirmation can be completed by the target time frames on trade date.

(b)(4): describe how the broker-dealer plans to identify and address delays if another party, including an investment adviser or a custodian, is not promptly completing the allocation or affirmation for the transaction, or if the broker-dealer experiences delays in promptly completing the confirmation.

(b)(5): measure, monitor, and document the rates of allocations, confirmations, and affirmations completed within the target time frames established under [] (b)(2) of the rule, as well as the rates of allocations, confirmations, and affirmations completed as soon as technologically practicable and no later than the end of trade date.

Additionally, rule 17Ad-27(a) will require CMSPs to develop policies and procedures focused on facilitating improvements in their operations, systems, and user obligations to further the development of STP in the processing of institutional trades, improve efficiency, facilitate both cost and risk reduction in the clearance and settlement of institutional trades generally, and better accommodate shorter settlement cycles.

Activities for Written Agreements or Policies and Procedures

Activities for Written Agreements or Policies and Procedures			
#	Implementation Steps	Organization Participants (Front, Middle, Back, IT, Vendor)	Supporting Systems
1	Identify and inventory sources for written agreements or policies and procedures		
2	Assess the finals rules standards written agreements or policies and procedures		

3	Schedule and execute required changes to identified written agreements or policies and procedures		
4	Document and track changes to documentation to ensure completeness		

6 Securities Lending

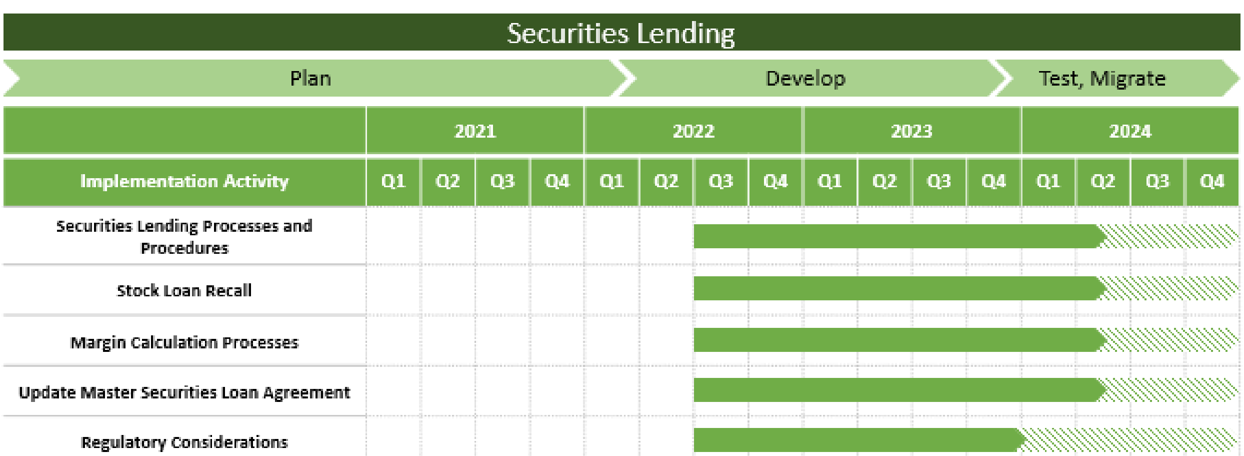
6.1 Introduction

In the current T+2 settlement environment, there is a reliance on batch cycle processes between custodians and third-party lending agents. In the compressed timeframe of a T+1 settlement cycle, the loaned securities subject to recall by the lender need to be identified in a compressed time frame so custodians' and agents' processes can proceed without disruption.

To reduce potential increases in settlement fail rates and potential buy ins resulting from sales of loaned securities, the industry recommends that lenders adopt a "best practice" of issuing their recalls by 11:59 PM ET on T. However, this deadline does not supersede existing MSLAs. The more notice borrowers have to return securities, the more likely they will be returned in time for settlement. The change in the settlement cycle will necessitate behavioral change in lenders, borrowers, custodians, broker dealers, and service providers, because security lenders will have less time to recall securities on-loan and security borrowers will have less time to return those securities to settle a sale of loaned securities. These behavioral, technological, and process changes are important to mitigate the impact on settlement processes resulting from a compressed settlement timeframe. Some lending agents use a batch process for recalling shares whereas others will recall intra-day. The move to a T+1 settlement cycle can pose a challenge for a custodian who must receive trade instructions in a timely manner in regard to the institutional workflows to be able to process their recalls on trade date. Where the lending agent is also the custodian bank, any securities lending recalls would not begin until after this trade instruction workflow reaches the custodian. If a third-party lender is involved, this creates a secondary, bifurcated flow that can be similarly delayed. A third-party lending agent must be separately instructed, and subsequently must have the shares recalled and back into the custody position at the bank, in order for it to be delivered in time.[28]

6.2 Timeline and Milestones

The following timeline illustrates the additional considerations implementation activities and milestones necessary to meet a May 28, 2024, implementation:



[28] ISITC Board reply to SEC - s70522-20122887-279255.pdf (sec.gov)

6.3 Impact Assessment and Implementation Considerations

The dimensions detailed below should be considered by the indicated participants related to securities lending in a T+1 settlement:

Dimension	Impacted?	Description
Business Model	Potential Impact	Changes in the securities lending processes are not expected to have a large impact on an organization's business model but should be evaluated.
Product Type	Potential Impact	In-scope products should be evaluated, and processes and systems should be configured for T+1 settlement to account for various product types (e.g., fixed income vs. equities) correctly.
Vendor & Service Bureau Support	Potential Impact	Vendors and service bureaus that do not properly update securities lending processes and procedures provided to their customer organizations could cause risk (e.g., operational, financial, and reputational) to those organizations. Vendors and service bureaus should configure systems for T+1 settlement in order to avoid risk (e.g., financial, reputational, settlement).
Trading Venue	None	Trading venues are not likely to be changed or largely impacted by securities lending with a T+1 settlement.
Risk & Compliance	Potential Impact	Risk (e.g., operational, financial, reputational) and compliance issues (e.g., licensing exams) may occur if securities lending processes are not updated related to the T+1 settlement cycle.
Customer Experience	None	The IWG determined minimal risk with a move to T+1. Organizations should perform a risk assessment.
Technology Enablers	Potential Impact	Issues may occur across an organization's technology platforms if securities lending processes (processes and timing related to stock loan, margin calculation) and procedures are outdated.

The participants impacted table below indicates which industry participants are most likely impacted by documentation:

Participants Impacted				
	Buy-Side	✓	Sell-Side	✓
	Custodian	✓	Vendor	✓

6.3.1. Securities Lending Processes and Procedures

6.3.1.A. Determine Impact on Securities Lending Processes and Procedures

Organizations should review existing securities lending processes and procedures for T+1 settlement. While the loan and delivery of collateral is virtually and simultaneously accomplished on trade date (T+0), the shortened settlement and recall cycles, as well as the shortened protect period for voluntary offers, will require organizations to have a more streamlined process. At the same time, internal books and records should be updated to reflect the securities lending and borrowing accurately.

Activities for Determining Impact on Securities Lending Processes and Procedures

Activities for Determining Impact on Securities Lending Processes and Procedures			
#	**Implementation Steps**	**Organization Participants (Front, Middle, Back, IT, Vendor)**	**Supporting Systems**
1	Inventory securities lending processes and procedures documentation (completeness check)		
2	Ensure that systems and reference data related to securities lending are included in inventories for configuration		
3	Assess the impact of required changes to upstream and downstream systems		
4	Determine responsibility for securities lending changes (proprietary vs. external vendor and service bureau)		
5	Coordinate changes with internal and external stakeholders		
6	Develop exercise and assignment test plans		
7	Schedule and execute system, process, and documentation changes		
8	Review effective controls to prevent issues (e.g., inadvertent data disclosure, client confidential breach)		

6.3.2. Stock Loan Recall

The Stock Loan Recall timeline will be impacted due to the move to T+1 settlement.

6.3.2.A. Align to Updated Stock Loan Recall Timing Changes

Under T+1, a lender who sells the loaned securities is incentivized to issue the recall on trade date to minimize risk of fails to deliver and potential resulting buy-ins. The more notice broker-dealers have to return securities, the more likely they will be returned in time for settlement. Although the legally binding recall time will continue to be determined per the securities lending agreement in effect between the lender and the borrower, the industry recommends an 11:59PM ET on T recall cutoff “best practice”. SIFMA believes this recommendation would provide sufficient time for lender and its agents to complete post-trade operational steps necessary to issue recalls and would be reasonably expected to increase the rate at which loaned securities are returned on T+1.

The best practice will cause the recall process to work as follows:

> The lender issues the recall before 11:59 p.m. ET on T. This should provide sufficient notice to enable the Borrower to attempt to return the loaned securities on T+1 (often by delivering newly borrowed shares) to timely settle the sale of the loaned securities. However, the legal cutoff time to return the loaned securities may not occur until a later cutoff time agreed by the lender and borrower under the relevant securities lending agreement (e.g., 3:00PM ET on T+2). The Rule 204 close-out requirement would remain at SD+3 (or T+4).

See below for the T+1 Stock Loan Recall Process timeline:

Activity #	Activity Name	Current State Time	Future State Time	DTCC Technical Names & Job Numbers
1	Stock Loan Recall Cutoff	3:00PM on T+1 (48 hour allowed Buy-In execution) After 3:01pm on T+1 (72 hour allowed Buy-In execution)	11:59PM on T (48 hour allowed Buy-In execution) After 12:00AM on T+1 (48 hour allowed Buy-In execution)	DTC accepts Recall messages from Vendors and Participants and transmits them to the counterparts through its SMART/Track for Recalls service-Tech Name-SMART/Track for Recalls NSCC's Security Financing Transaction Service (SFT) will also be changed to accommodate this timing change for Recalls
2	Buy-In Allocation	3:10PM on T+3 3:10PM on T+4	3:10PM on T+2 3:10 PM on T+3	

Activities to Align to Updated Stock Loan Recall Timing Changes

Activities to Align to Updated Stock Loan Recall Timing Changes			
#	**Implementation Steps**	**Organization Participants** **(Front, Middle, Back, IT, Vendor)**	**Supporting Systems**
1	Determine required changes to stock loan recall processes for migration to T+1 settlement		

Activities to Align to Updated Stock Loan Recall Timing Changes			
#	**Implementation Steps**	**Organization Participants (Front, Middle, Back, IT, Vendor)**	**Supporting Systems**
2	Determine responsibility for stock loan recall timing changes		
3	Coordinate changes with internal and external stakeholders		
4	Develop stock loan recall timing changes test plan		
5	Schedule and execute changes prior to migration to T+1 settlement		

6.3.3. Margin Calculations Processes

6.3.3.A. Update Margin Calculations Processes

Organizations will need to review their processes related to margin calculations as the move to T+1 may require updated processes in a T+1 settlement.

Activities to Update Margin Calculations Processes

Activities to Update Margin Calculation Processes			
#	**Implementation Steps**	**Organization Participants (Front, Middle, Back, IT, Vendor)**	**Supporting Systems**
1	Ensure that systems and reference data related to margin calculations are included in inventories for configuration		
2	Evaluate the impact on downstream processes (internal and external) for system and process changes related to margin calculations		
3	Determine responsibility for margin calculation changes		
4	Coordinate changes with internal and external stakeholders		
5	Develop margin calculation test plan		
6	Schedule and execute changes related to margin calculations		

6.3.4. Master Securities Loan Agreement

Borrowers and lenders enter into a master agreement before engaging in securities lending transactions. The master agreement protects both the parties in case of defaults and includes provisions on collateral, collateral substitution, margin requirements, corporate actions, return of securities and events of default.

6.3.4.A. Updating Master Securities Loan Agreement

Organizations should review existing Master Securities Loan Agreements[29] and adjust as necessary for a T+1 settlement. SIFMA will review the form MSLA and determine if it requires updating for the T+1 environment.

Activities to Update Master Securities Loan Agreement

Activities to Update Master Securities Loan Agreement			
#	Implementation Steps	Organization Participants (Front, Middle, Back, IT, Vendor)	Supporting Systems
1	Inventory Master Securities Loan Agreements that reference T+2 settlement		
2	Assess changes required to MSLAs		
3	Coordinate changes to MSLAs with internal and external stakeholders		
4	Schedule and execute identified changes to MSLAs		
5	Document and track changes to MSLAs to ensure completeness		

6.3.5. Regulatory Considerations

6.3.5.A. Assess Regulatory Considerations related to Securities Lending

Organizations should assess how securities lending may be impacted by regulatory changes for T+1 settlement.

[29] Master Securities Loan Agreement are designed to provide a basic contractual framework for forward and other delayed-delivery transactions involving mortgage backed and asset-backed securities.

Activities for Assessing Regulatory Considerations related to Securities Lending

Activities for Assessing Regulatory Considerations related to Securities Lending			
#	**Implementation Steps**	**Organization Participants (Front, Middle, Back, IT, Vendor)**	**Supporting Systems**
1	Assess rule changes for securities lending		
2	Ensure that systems and reference data impacted by rule changes are included in inventories for configuration		
3	Determine process changes required to maintain compliant with rule changes		
4	Coordinate changes with both internal and external parties		
5	Develop rule change test plans		
6	Schedule and execute changes for system changes		
7	Update operational policies and procedures as applicable for each rule change		
8	Update compliance policies and procedures as applicable for each rule change		
9	Update regulatory policies and procedures as applicable for each rule change		

7 Prime Brokerage

7.1 Introduction

Broker-dealers currently operate under the guidance provided by the SEC "No Action Letter" in which the executing broker ("EB") must deliver trade details to the prime broker ("PB") by the morning of the next business day after the trade is executed. No changes have been deemed necessary to the existing NAL in its current form in order to be compliant with T+1 settlement requirements.

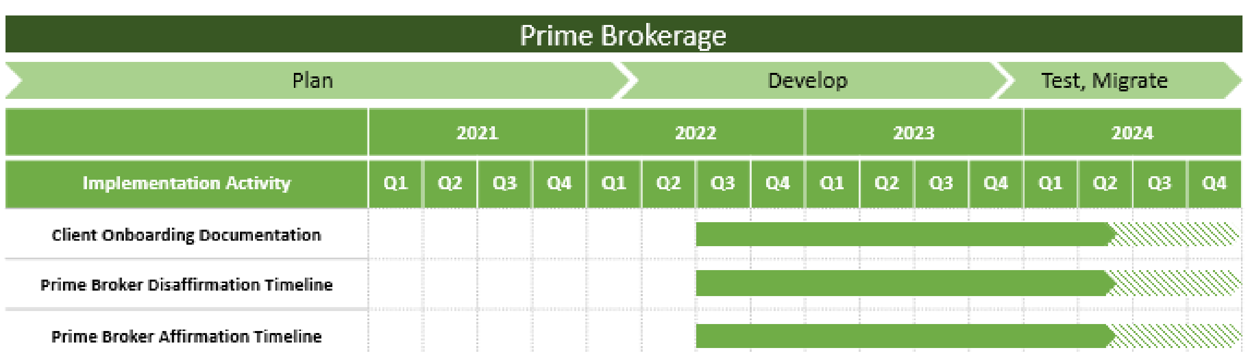
Broker-dealers currently operate under the guidance provided by the SEC "No Action Letter" in which the executing broker must deliver trade details to the prime broker by the morning of the next business day after the trade is executed. This current timing will be sufficient in a T+1 settlement cycle as the industry-proposed 9:00PM ET NSCC CNS deadline for trade affirmation and processing. The current disaffirmation deadline for PBs will remain at 5:00PM ET on T+1 to operationally support a process by which the PB may disaffirm a previously affirmed trade.[30]

Furthermore, PBs, executing/self-clearing broker-dealers, and clearing broker-dealers of an introducing broker acting as an EB should identify and implement amendments to their existing contracts regarding the prime brokerage arrangement (e.g., including standardized documents) to reflect any necessary changes to timing for trade notification and affirmation. No changes have been deemed necessary to Form 150 or Form 151 in their current form in order to be compliant with T+1 settlement requirements. Prime Brokers, executing/self-clearing broker-dealers, and clearing broker-dealers of an introducing broker acting as an EB have deemed that Form 150 and Form 151 in their current release would be compliant with T+1.

In summary, the move to T+1 settlement will necessitate changes to prime brokerage processes in order to comply with updated regulatory guidance and industry-imposed operational deadlines. To help guide organizations with implementing the T+1 settlement cycle, implementation activities related to prime brokerage have been identified below.

7.2 Timeline and Milestones

The following timeline illustrates prime brokerage implementation activities and milestones necessary to meet a May 28, 2024, implementation:



[30] See section 7.3.1.A. to review Prime Broker disaffirmation timeline.

7.3 Impact Assessment and Implementation Considerations

The dimensions detailed below should be considered by the indicated participants related to prime brokerage in a T+1 settlement:

Dimension	Impacted?	Description
Business Model	None	Changes in the prime brokerage space are not expected to have an impact on an organization's business models.
Product Type	None	In-scope products should be evaluated to identify potential impacts as applicable, and processes and systems should be configured for T+1 settlement to account for various product types (e.g., fixed income vs. equities) correctly.
Vendor & Service Bureau Support	Potential Impact	Vendors and service bureaus that do not update prime brokerage processes and procedures to align with anticipated, updated regulatory guidance could pose a risk to the broker-dealer. Vendors and service bureaus should configure systems and operational procedures to align to regulatory- and industry-imposed operational deadlines and requirements.
Trading Venue	None	Trading venues are not likely to be changed or largely impacted related to the operational changes proposed.
Risk & Compliance	Potential Impact	Organizations should evaluate how operational changes related in response to updated regulatory guidance implicates their overall risk/compliance oversight programs.
Customer Experience	Potential Impact	Requirements by customers or EBs to adhere to modified service-level agreements (SLAs) or updated procedures related to onboarding agreements in order to meet modified regulatory and/or industry-imposed deadlines may be implicated. Organizations should evaluate how these changes may impact the customer experience.
Technology Enablers	Potential Impact	Operational and technical issues may arise if technology platforms and related processes are not updated to meet regulatory- or industry-imposed deadlines (e.g., resolution of trade mismatches, delivery to CNS within specific timelines, reduction in straight-through processing).

The participants impacted table below indicates which industry participants are most likely impacted by prime brokerage:

Participants Impacted	**Buy-Side**	✓	**Sell-Side**	✓
	Custodian	✓	**Vendor**	✓

7.3.1. Review Client Onboarding Documentation and Processing Dependencies

Organizations will need to review processes for prime broker client onboarding documentation and operational procedures to meet regulatory and industry-imposed deadlines for T+1 settlement in the US.

7.3.1.A. Review Prime Broker Disaffirmation Timelines

DTCC and the T+1 Prime Broker Industry Working Group are proposing to keep the current Prime Broker Disaffirmation cutoff to operationally support a daily PB disaffirmation cutoff of T+1 at 5:00PM ET to reverse previously affirmed PB trades. This processing change is anticipated to work as follows:

- Disaffirmation of trades between 9:00PM ET on T to 1:30PM ET on T+1 would result in reversal transactions being generated by NSCC for same day settlement. If the original PB transaction is unsettled, the disaffirmed trades will net against the original transaction. If the original PB transaction is settled, the disaffirmed trades will result in a new NSCC position to be settled. Both scenarios could impact both the PB and EB's NSCC intraday margin requirements and could result in intraday margin calls.
- Disaffirmation of trades between 1:31PM ET on T+1 to 5:00PM ET on T+ 1 would result in reversal transactions being generated by NSCC for the next business day after settlement (S+1). Similar to above, if the original PB transaction is unsettled, the disaffirmed trade will net against the original transaction. If the original PB transaction is settled, the disaffirmed trade will result in new NSCC position to be settled. Both scenarios could impact both the PB and EB S+1 NSCC margin requirement.

Activities to Review Prime Broker Disaffirmation Timelines

Activities to Review Prime Broker Disaffirmation Timelines			
#	**Implementation Steps**	**Organization Participants (Front, Middle, Back, IT, Vendor)**	**Supporting Systems**
1	Ensure that systems and reference data related to prime broker disaffirmation are included in inventories for configuration		
2	Examine upstream system, data, and process changes to ensure that they do not interfere with the process for prime broker disaffirmation		
3	Determine changes required to processes related to prime broker disaffirmation		
4	Coordinate changes to processes related to prime broker disaffirmation with internal and external stakeholders		
5	Schedule and execute process changes for prime broker disaffirmation		

7.3.1.B. Review Prime Broker Affirmation Timelines

Organizations will need to review processes for Prime Broker affirmation timelines for a T+1 settlement in the US. The timely affirmation of trades by prime brokers is a critical step in the clearing and settlement process. Trades that are affirmed by 9:00PM ET on T will result in those transaction being sent to NSCC's CNS Service if they meet the CNS eligibility criteria. NSCC's CNS system is a service that provides risk-reducing and operational benefits for the industry. NSCC margin requirements shift from the EB to the Prime Broker for affirmed trades that are processed through CNS. It is important that the move to T+1 does not result in a material reduction in the percentage of prime brokerage trades that timely settle through NSCC's centralized clearing system. For Prime Brokerage trades the EB and PB will need to submit their trades to NSCC for CNS clearing prior to the proposed 9:00PM ET on T. Importantly, affirmation is done via DTCC and not through dual submission by the EB and PB directly to NSCC. This is the affirmation cutoff time that DTCC and the T+1 IWG have agreed upon.

Activities to Review Prime Broker Affirmation Timelines

Activities to Review Prime Broker Affirmation Timelines			
#	**Implementation Steps**	**Organization Participants (Front, Middle, Back, IT, Vendor)**	**Supporting Systems**
1	Ensure that systems and reference data related to prime broker affirmation are included in inventories for configuration		
2	Examine upstream system, data, and process changes to ensure that they do not interfere with the process for prime broker affirmation		
3	Determine changes required to processes related to prime broker affirmation		
4	Coordinate changes to processes related to prime broker affirmation with internal and external stakeholders		
5	Schedule and execute process changes for prime broker affirmation		

7.3.2. Form 151, 151 and the Prime Brokerage No-Action Letter

As part of the work of the SIFMA Prime Brokerage and Securities Lending working group, it has been agreed that there are no changes required to existing Forms 150 and 151, nor the Prime Brokerage "No-Action Letter" to support the T+1 settlement cycle transition.

8 Funding and Liquidity Considerations

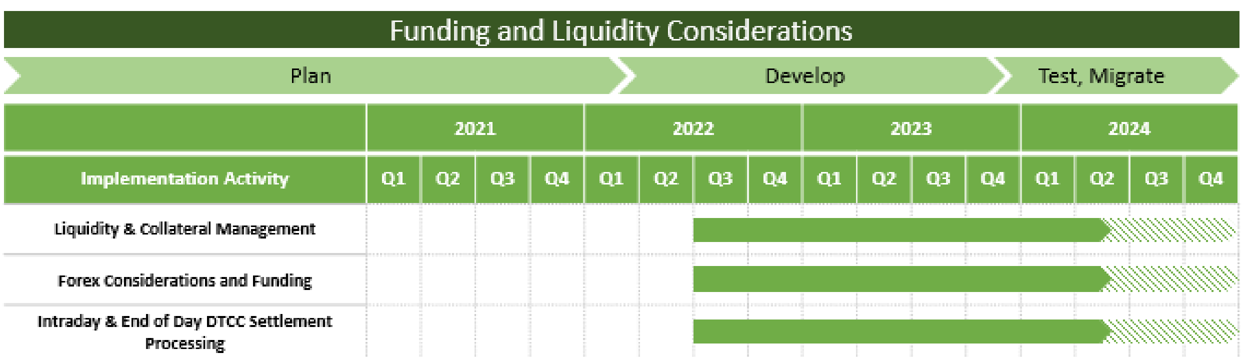
8.1 Introduction

Retail investors may be required to have cash in their accounts, or have other contingencies, given time required to fund ACH and wire transfers from consumer banks to securities accounts and the investment of idle cash would be difficult in a T+1 settlement cycle. Given these considerations and to help guide organizations with implementing the T+1 settlement cycle, implementation activities related to funding and liquidity changes have been identified below.

Firms should consider how their foreign participants will be able to successfully fund their trading activity in a T+1 settlement cycle. Investors may find it challenging to execute their FX transactions, submit the transactions into CLS for settlement netting, as applicable, and allocate and affirm trades prior to industry deadlines. Buy-side firms, in particular, are evaluating various methods to optimize their FX management[31], however, both buy and sell-side firms should consider their current processes for FX funding of securities transactions to confirm that they will be able to fund their settlement obligations without undue increase in counterparty and settlement risk in a T+1 settlement cycle.

8.2 Timeline and Milestones

The following timeline illustrates the additional considerations implementation activities and milestones necessary to meet a May 28, 2024, implementation:



8.3 Impact Assessment and Implementation Considerations

The dimensions detailed below should be considered by the indicated participants related to funding and liquidity in a T+1 settlement:

Dimension	Impacted?	Description
Business Model	None	The IWG determined no or minimal risk. Organizations should perform a risk assessment.
Product Type	None	The IWG determined no or minimal risk. Organizations should perform a risk assessment.

[31] "FXPA Buy-side Guidance in Preparation for T+1 Settlement", November 2023. https://fxpa.org/wp-content/uploads/2023/11/T-1-Settlement-Guidance-for-Buy-Side-11-27-23.pdf

Dimension	Impacted?	Description
Vendor & Service Bureau Support	Potential Impact	Vendors and service bureaus that do not properly update funding, liquidity and collateral management processes and procedures provided to their customer organizations could cause risk (e.g., operational, financial, and reputational) to those organizations. Vendors and service bureaus should configure systems for funding and collateral management in order to avoid risk (e.g., financial, reputational, settlement).
Trading Venue	None	Trading venues are not likely to be changed or largely impacted by funding and collateral management process with a T+1 settlement.
Risk & Compliance	Potential Impact	Risk (e.g., operational, financial, reputational, settlement) and compliance issues (e.g., licensing exams) may occur if operational processes are not updated related to the T+1 settlement cycle.
Customer Experience	Potential Impact	Liquidity and collateral management issues (e.g., insufficient collateral, securities lending errors, and missed obligations) may impact external clients and cause risk (e.g., financial, reputational).
Technology Enablers	Potential Impact	Issues may occur across an organization's technology platforms if systems and data related to liquidity and collateral management are not comprehensively updated.

The participants impacted table below indicates which industry participants are most likely impacted by changes related to funding and liquidity:

Participants Impacted	**Buy-Side**	✓	**Sell-Side**	✓
	Custodian	✓	**Vendor**	✓

8.3.1. Liquidity and Collateral Management

T+1 settlement process will enhance liquidity in the financial market as the counterparty risk exposure decreases.

8.3.1.A. Assess Liquidity and Collateral Management

Organizations need to assess liquidity and collateral management processes for T+1 settlement. The migration to T+1 is anticipated to reduce counterparty risk and associated market risks. Additionally, reduced collateral requirements will help reduce liquidity risks, thereby improving capital utilization by organizations. Despite the anticipated benefits, it is imperative that organizations consider potential impacts by assessing the operational processes and technology used to facilitate each process.

For firms using a non-triparty provider and posting equities in USD, there are disconnected workflows required to move collateral properly. There is a need for more automation in order to settle collateral outside of non-triparty providers.[32]

In order to ease asset allocation and management for collateral purposes, organizations should consider planning operational changes early in the implementation process to ensure that they are ready for shortened trade matching and affirmation cut-off times. With respect to the substitution and recall process, return of a requested item of posted credit support should take place the same day that a substitute credit support is received, particularly when the substitute item uses the same settlement convention and is in the same country. The International Swaps and Derivatives Association (ISDA) considers same-day collateral recall a leading industry practice, and this timeframe should continue in the T+1 environment. Regarding liquidity management (and associated treasury functions), treasury managers will have one day less to ensure the necessary liquidity is present for settling the transactions of their institutions.

Liquidity and Collateral Management operational strategies should consider the liquidity costs, benefits, and risks as part of the T+1 migration process. As part of the strategic planning and budgeting processes, management typically:

- Performs periodic liquidity and profitability evaluations for existing activities and strategies.
- Identifies primary and contingent funding sources needed to meet daily operations, as well as seasonal and cyclical cash flow fluctuations.
- Ensures liquidity management strategies are consistent with the Board's expressed risk tolerance.

Activities to Assess Liquidity and Collateral Management

Activities to Assess Liquidity and Collateral Management			
#	**Implementation Steps**	**Organization Participants (Front, Middle, Back, IT, Vendor)**	**Supporting Systems**
1	Determine if strategies, policies, or practices to manage liquidity risk need to change based on the shortened settlement cycle		
2	Determine impacts to projection of cash flows		
3	Determine if T+1 settlement will impact the collateral management process		
4	Determine if changes to collateral management systems are required due to shortened settlement cycle		

[32] ISITC Board reply to SEC - s70522-20122887-279255.pdf (sec.gov)

8.3.2. FX Considerations and Funding

8.3.2.A. Assess FX Considerations and Funding

Organizations should review their foreign exchange practices for T+1 settlement. Trading platforms may need to link their currency exchanges to align with trade settlements. Custodian cut-offs may limit the ability of firms to execute FX trades and submit them into netting for settlement, thereby increasing counterparty and settlement risk. These rules and systemic configuration supporting FX trading, execution, reconciliation, and settlement should be reviewed for purchases of US securities requiring an exchange of a non-USD currency to ensure good funds are available on settlement date.

For firms using a non-triparty provider and posting equities in USD, there are disconnected workflows required to move collateral properly. There is a need for more automation in order to settle collateral outside of non-triparty providers.

Activities to Assess Forex Considerations and Funding

Activities to Assess Forex Considerations and Funding			
#	**Implementation Steps**	**Organization Participants (Front, Middle, Back, IT, Vendor)**	**Supporting Systems**
1	Identify changes to market synchronization for T+1 settlement cycle		
2	Assess impact of market synchronization changes to foreign exchange and funding		
3	Determine changes required due to T+1 implementation		
4	Coordinate identified changes with internal and external stakeholders		
5	Schedule and execute identified changes		

8.3.3 Intraday & End of Day DTCC Settlement Processing

8.3.3.A. Assess Intraday & End of Day DTCC Settlement Processing

Organizations should assess their intraday and end of day DTCC settlement processes for T+1 settlement. Intraday and end of day settlement processing is not expected to be largely impacted by the industry's move to T+1, firms should conduct their own assessment to ensure alignment with T+1 DTCC processing timelines.

Activities to Assess Intraday & End of Day DTCC Settlement Processing

Activities to Assess Intraday & End of Day DTCC Settlement Processing			
#	**Implementation Steps**	**Organization Participants (Front, Middle, Back, IT, Vendor)**	**Supporting Systems**
1	Ensure that systems and reference data related to intraday & end of day DTCC settlement processing are included in inventories for configuration		
2	Examine upstream system, data, and process changes to ensure that they do not interfere with intraday & end of day DTCC settlement processing		
3	Determine process changes required for intraday & end of day DTCC settlement		
4	Coordinate changes to processes related to intraday & end of day DTCC settlement with internal and external stakeholders		
5	Develop test plans for intraday & end of day DTCC settlement processing		
6	Schedule and execute process changes for Intraday & end of day DTCC settlement		

9 Additional Considerations

9.1 Introduction

In addition to trade processing, asset servicing, documentation, securities lending, prime brokerage, and funding and liquidity considerations, organizations should assess other areas, including global considerations, options exercise and assignment, primary offerings, reconciliations for errors/fails, and buy-side consideration, for the move to T+1 settlement. To help guide organizations with the T+1 settlement cycle implementation activities be recommendations related to these areas are identified below.

9.2 Timeline and Milestones

The following timeline illustrates the additional considerations, implementation activities, and milestones necessary to meet a May 28, 2024, U.S. T+1 implementation:

9.3 Impact Assessment and Implementation Considerations

9.3.1 Global Considerations

The U.S. dollar (USD) FX market is the world's largest and most liquid financial market. FX market participants engage in currency exchange transactions across many different jurisdictions and time zones. It is, therefore, important to consider the implications of the T+1 settlement on the FX markets.

In consideration of the processes related to global settlement implications and FX markets, some global considerations like FX settlement risk, international banking & market coordination issues, and collateral risk require attention given the migration to T+1 settlement. Importantly, participants that have international clients, should recognize the new timeline changes, and ensure that they have proper and robust communication and testing framework developed to ensure compliance with the new timeline.

9.3.1.A. Assess Processes for Global Considerations

Organizations will need to work closely with buy-side market participants and international stakeholders to assess the impact to international investors and the FX market participants when accelerating the settlement cycle.

Wholesale FX market participants may need to conduct their own analysis related to their internal operating models and present-day global practices to identify changes and enhancements that would be required in order to facilitate T+1 FX where needed for U.S. T+1 Settlement.

Organizations will need to review processes for global considerations for T+1 settlement in the US and understand how this will affect their relationship with other markets, currencies, and foreign customers.

Foreign Exchange

- Organizations should review their foreign exchange practices, including financial institution partners outside the U.S., for T+1 settlement. Trading platforms may link their currency exchanges to align with trade settlements. These rules and systemic configuration should be reviewed for purchases of U.S. securities requiring an exchange of a non-USD currency to ensure good funds.

Multi-Listed Securities

- Organizations should review their practices (e.g., substitutions, recalls) regarding securities that are multi-listed. With the U.S. moving to T+1, organizations will need to make adjustments to account for markets that are in-sync and out of sync with the U.S. settlement cycle. For such securities considerations and adjustments will have to be made as it relates to margin and entitlements.
- In addition, organizations should review practices related to dual-listed securities as the U.S. transitions to T+1. Relevant processes and systemic configuration should be reviewed for these securities to ensure alignment.

American Depositary Receipt (ADR) Underlying Relationships

- ADRs will be impacted across trade processing, asset servicing, documentation, and other areas similar to U.S. issued equities. Additionally, T+1 will likely impact both sponsored and unsponsored DRs, and depository banks. The IWG believes that sponsored ADR issuers and unsponsored ADR participants should review their issuance and cancellation procedures to ensure that changes are addressed to shorten the settlement cycle.
- Market makers in these securities, who rely on ADR conversions to cover their delivery obligations, should consider the underlying securities settlement cycle, and analyze how this misalignment will impact their ability to meet their settlement obligations in a T+1 settlement cycle.

Multi-Currency Security Types

- U.S. securities trade around the globe on different markets and with different security identifiers. The industry did not identify implementation activities regarding multi-currency securities, as these securities trade based on location and particular market rules.

Global Tax Considerations

- The IWG found that the move to T+1 will likely have a minimal impact to global tax withholding and other global tax considerations. Double taxation agreements will not be affected due to the US shortening the settlement cycle.

Global Market Settlement Cycles

Although the move to T+1 is considered to be a positive change for global settlement harmonization, organizations will still need to assess processes and make adjustments for changes to market synchronization (newly in-sync and out-of-sync markets). When the U.S. migrated from T+3 to T+2 settlement in 2017, a majority of international markets were already on a T+2 settlement cycle, making the transition much easier and resolving misalignment issues due to a longer U.S. settlement cycle. However, the move from T+2 to T+1 now creates a significant misalignment scenario for the U.S., as many international markets will remain at T+2 with no current announced plans to accelerate the settlement cycle, HMT Taskforce and AFME have begun their efforts studying the impacts of a T+1 settlement cycle. Canada and Mexico are accelerating settlement cycles to T+1 on May 27, 2024.[33,34]

Many firms process fixed income and option transactions today for foreign clients. With 24 fewer hours to get foreign activity through the settlement process, however firms will need to carefully review their current T+1 processes to ensure they can accommodate the increased capacity needs.

Dimensions to Review Processes for Global Considerations

The dimensions detailed below should be considered for global considerations:

Dimension	Impacted?	Summary of Risk
Business Model	Potential Impact	Due to the shortened settlement cycle, coordinated efforts need to be taken by wholesale FX market participants to introduce T+1 settlement without disruption, particularly for non-U.S. based investors given time zone differences.
Product Type	Potential Impact	Global considerations could experience operational and settlement issues if trade discrepancies occur on T+1 and global parties are unable to pre-fund the trade.
Vendor & Service Bureau Support	Potential Impact	Vendors and service bureaus that do not properly update processes for global market participants and data provided to their customer organizations could cause risk (e.g., financial, reputational) to those organizations.
Trading Venue	Potential Impact	Inability to pre-fund the trade by foreign investors may deter them to trade in U.S. financial markets.
Risk & Compliance	Potential Impact	Risk (e.g., operational, financial, and reputational) and compliance issues may occur if processes related to global considerations are not properly configured for T+1.
Customer Experience	Potential Impact	Incorrectly updated global market processes may cause upstream and downstream implications for internal functions (e.g., reconciliation, deliveries) and impact external clients (e.g., failed trades).

[33] CCMA Announces Canadian T+1 Start Date: Monday, May 27, 2024, https://ccma-acmc.ca/en/wp-content/uploads/CCMA-Announces-Canadian-T1-Start-Date-March-14-2023.pdf

[34] CCV Announcement to Market Participants – Adoption of T+1 Settlement, https://www.contraparte-central.com.mx/wb3/wb/CCV/archivos_publicos/_vtp/CCV/118d_2023/_rid/151/_mto/3/CCV_y_AMIB_T1_Anuncio_Ingle769s_Version_FInal.pdf?repfop=view&reptp=118d_2023&repfiddoc=712&repinline=true

Dimension	Impacted?	Summary of Risk
Technology Enablers	Potential Impact	Issues may occur across an organization's technology platforms if systems and data related to global markets are not comprehensively updated.

The participants impacted table below indicates which industry participants are most likely impacted by global considerations:

Participants Impacted				
	Buy-Side	✓	Sell-Side	✓
	Custodian	✓	Vendor	✓

Activities to Review Processes for Global Considerations

Activities to Review Processes for Global Considerations			
#	**Implementation Steps**	**Organization Participants** **(Front, Middle, Back, IT, Vendor)**	**Supporting Systems**
1	Identify changes to market synchronization for T+1 settlement cycle		
2	Assess impact of market synchronization changes to foreign exchange, foreign investment, and cross-border transaction processing, procedures, and policy documentation		
3	Review issuance and cancellation procedures around ADR processing		
4	Determine changes required due to T+1 implementation		
5	Coordinate identified changes with internal and external stakeholders		
6	Schedule and execute identified changes		

9.3.2 Options Exercise and Assignment

Listed Options currently settle on a T+1 basis but the industry together needs to reengineer securities processing functions to further facilitate the exercise and assignment processes of options on a T+1 basis.

9.3.2.A. Assess Options Exercise and Assignment Processes

Organizations should assess their options exercise and assignment processes for T+1 settlement. The exercise and assignment of options are expected to move to T+1 to align with the settlement of the underlying securities.

Dimensions to Assess Options Exercise and Assignment Processes

The dimensions detailed below should be considered for options exercise and assignment process assessment:

Dimension	Impacted?	Summary of Risk
Business Model	None	The IWG determined no or minimal risk. Organizations should perform a risk assessment.
Product Type	Potential Impact	Underlying securities could experience operational and settlement issues if settlement dates are not adjusted for T+1.
Vendor & Service Bureau Support	Potential Impact	Vendors and service bureaus that do not properly update options exercise and assignment operations and data provided to their customer organizations could cause risk (e.g., financial, reputational) to those organizations.
Trading Venue	Potential Impact	Options exercise and assignment processes that are not properly updated for T+1 settlement could cause balance issues with the Options Clearing Corporation (OCC).
Risk & Compliance	Potential Impact	Risk (e.g., operational, financial, and reputational) and compliance issues may occur if options exercise and assignment processes are not properly configured for T+1.
Customer Experience	Potential Impact	Incorrectly updated options exercise and assignment processes may cause upstream and downstream implications for internal functions (e.g., reconciliation, deliveries) and impact external clients (e.g., failed trades).
Technology Enablers	Potential Impact	Issues may occur across an organization's technology platforms if options exercise and assignment processes and options settlement data configuration are not comprehensively updated.

The participants impacted table below indicates which industry participants are most likely impacted by options exercise and assignment:

Participants Impacted	**Buy-Side**	✓	**Sell-Side**	✓
	Custodian	✓	**Vendor**	✓

Activities to Assess Options Exercise and Assignment Processes

Activities to Assess Options Exercise and Assignment Processes			
#	Implementation Steps	Organization Participants (Front, Middle, Back, IT, Vendor)	Supporting Systems
1	Inventory exercise and assignment processes and documentation (completeness check)		
2	Ensure that systems and reference data related to options exercise and assignment are included in inventories for configuration		
3	Assess the impact of required changes to upstream and downstream systems		
4	Determine responsibility for exercise and assignment changes (proprietary vs. external vendor and service bureau)		
5	Coordinate changes with internal and external stakeholders		
6	Develop exercise and assignment test plans		
7	Schedule and execute system, process, and documentation changes		

9.3.3 Primary Offerings

9.3.3.A. Assess Primary Offerings

Organizations will need to consider changes to its primary offerings processes. Ancillary securities processing activity related to secondary market trading will require reengineering to execute contracts and allocations across asset classes under compressed timeframes. Often, these processes span multiple trading days given their nuances and the legal and contractual obligations may not, and in the case of primary offerings cannot be satisfied within the trading day window for end-of-day settlement.

Dimensions to Assess Primary Offerings

The dimensions below should be considered for primary offerings:

Dimension	Impacted?	Summary of Risk
Business Model	Potential Impact	Primary equity offerings are document intensive. Usually, the delivery of final prospectuses and various other documents in the current T+2 cycle occurs on the morning of settlement. The final prospectus is unlikely to be delivered prior to the settlement of the T+1 offering. Consolidated efforts need to be

Dimension	Impacted?	Summary of Risk
		made to the model to accommodate for unanticipated documentation issues for a smooth transition to T+1.
Product Type	Potential Impact	Primary offering process could experience operational and settlement issues if current documentation and exception management processes are not adjusted for T+1.
Vendor & Service Bureau Support	Potential Impact	Services that fail to accommodate any documentation exceptions of primary offerings seamlessly will lead to hiccups in the settlement cycle
Trading Venue	None	The IWG determined no or minimal risk. Organizations should perform a risk assessment.
Risk & Compliance	Potential Impact	Operational risks are heightened due to a compressed timeframe that provides virtually no time to address unanticipated issues that may arise in primary offerings.
Customer Experience	Potential Impact	Any unanticipated delays in documentation and inability of foreign banks to pre-fund the nominal amount/par value (in local currency) to the company in order for the company to then register the share capital increase with the local register would cause inconvenience for foreign investors.
Technology Enablers	Potential Impact	Issues may occur across an organization's technology platforms if systems and data related to primary offerings are not comprehensively updated.

The participants impacted table below indicates which industry participants are most likely impacted by primary offerings:

Participants Impacted	**Buy-Side**	✓	**Sell-Side**	✓
	Custodian	✓	**Vendor**	✓

Activities to Assess Primary Offerings

Activities to Assess Primary Offerings			
#	**Implementation Steps**	**Organization Participants** **(Front, Middle, Back, IT, Vendor)**	**Supporting Systems**
1	Determine required changes for primary offerings required for migration to T+1		
2	Accelerate documentation procedures required to close primary offerings		

Activities to Assess Primary Offerings			
#	Implementation Steps	Organization Participants (Front, Middle, Back, IT, Vendor)	Supporting Systems
3	Coordinate changes with internal and external stakeholders		
4	Develop test plans to check the robustness of the system in handling operational issues		
5	Schedule and execute new systems for primary offerings to cater to the new compressed timeframe of T+1		

9.3.4 Reconciliations for Errors/Fails

Organizations will need to consider changes to its processes for settlement errors/fails for T+1 settlement in the U.S. the common causes of settlement errors are missing trade counterparty instructions, missing or incorrect SSIs, shares not received from a recalled loan or pledged security, cancels and rebills, firm communications, and conversions/realignments as applicable to RegS/144A and ADR/ORD securities.

Based on AccessFintech's analysis of today's markets, 60% of trade fails are caused by inventory issues. This is coupled with 15% of trade fails from SSI related issues, 15% from PSET conflicts, and 10% for economic reasons. In the transition to T+1, there is potential to collaborate, both internally and with relevant counterparties, to address these root causes.

Missing trade counterparty instructions

- Stale reference data not updated with current SSI instructions results in incomplete or inaccurate reference data being utilized for trade matching.
- For block trades, counterparties may not distribute and or receive the allocation information in a timely manner.

Missing or incorrect SSIs

- Due to non-standard processes for obtaining SSIs, there may exist missing or incorrect SSIs.
- Root causes of fails likely to interrupt various streams of revenue data for pricing.
  - Customers failing to update SSIs on automated systems
  - Customers trading in a block account and allocating securities with one set of SSIs and then making changes to another account shortly before settlement
  - Firms awaiting trade instructions from the counterparty on a transaction for an illiquid security

Shares not received from a recalled loan or pledged security

- Processing timelines will be compressed in a T+1 settlement cycle. If the recall process is delayed for any reason, the ability to obtain the shares back may lead to a higher percentage of trade fails.
- Given the compressed processing timelines in a T+1 environment, a delay in the request to release pledged securities may lead to a higher percentage of trade fails.

Cancels and rebills

- The cancel and rebill process occur when a trade is booked, affirmed, and then canceled. This cancel can lead to increased errors and potential DK's.[35] Considering these instances occur frequently in a T+2 settlement cycle, it is believed that these occurrences could become more prevalent in a T+1 settlement environment. Firms should look to install best practices and automation of the cancel and rebill process to avoid failure scenarios.
- The industry lacks a standardized method and process to effectively and timely manage cancel and rebills which creates inconsistencies between firms and is a driver of settlement errors and subsequent fails. The current cancel and rebill process can lead to an increase in DTC Participants sending Payment Orders (SPOs) through DTC to resolve these money differences.

Firm communications

- Many firms continue to rely on outdated communication methods (e.g., emails, faxes) to complete trade settlement and reconciliations. These inefficient communication channels contribute to errors and delay trade settlement.

Conversions/realignments as applicable to RegS/144A and ADR/ORD securities

- In order to enable T+1 settlement without increasing fails, the industry believes there needs to be automated solutions to the manual paperwork and physical stamp requirements to process Reg S/144a conversions with the conversion agent community. In the current state, the ability to convert securities ahead of standard settlement cycles to ensure timely settlement is already strained leading to increased fails, counterparty risk and financial exposure. We believe that in a T+1 environment, this risk will be further strained as the current process is not fit for purpose. An industry solution would greatly benefit settlement efficiency and will improve liquidity in the marketplace on these securities.

Based on discussions held to-date, the IWG recommends the following:

- Adopt full utilization of available technology.
- Propose standardization of processes and further adoption of widely available automated systems and solutions.
    - In the cancel and rebill process, this will allow for industry participants to agree to pair-offs, partials, and other trade details in a quicker manner which will be required to avoid fails in an accelerated settlement cycle

9.3.4.A. Assess Reconciliation Processes for Errors/Fails

Organizations should review their asset reconciliation processes for errors and fails. Standardization of protocols and processes would be beneficial to manage the errors and fails of trades without hindering the transition to T+1.

Communication channels also needs to be assessed and redundant flows should be integrated for a smoother transmission of information.

Dimensions to Assess Reconciliation Processes for Errors/Fails

The dimensions below should be considered to reconcile errors/fails:

[35] A DK'd trade results when one of the parties has a dispute or rejects the trade due to a given discrepancy.

Dimension	Impacted?	Summary of Risk
Business Model	Potential Impact	With the compressed timeline, manual processes should be automated so that the settlement instruction delivered to custodians by brokers are error-free and should eliminate discrepancies between buyer and seller.
Product Type	Potential Impact	Processes should be standardized and automated to mitigate risks pertaining to data quality and integration with trade processes.
Vendor & Service Bureau Support	Potential Impact	Vendors can offer robust exception management services to identify and handle errors and fails in the accelerated settlement cycle.
Trading Venue	None	The IWG determined no or minimal risk. Organizations should perform a risk assessment.
Risk & Compliance	Potential Impact	Failure to handle SSI mismatches and standardizing cancelling and rebilling of trades would create compliance issues and increase the quantum of failed trades.
Customer Experience	Potential Impact	Reliance on legacy systems can deter the process of timely allocation of trades for customers.
Technology Enablers	Potential Impact	Inability of customers to update their SSI on automated systems or updating instructions just before the settlement in the system would risk the data quality and integrity.

The participants impacted table below indicates which industry participants are most likely impacted by reconciliation processes for errors and fails:

Participants Impacted	Buy-Side	✓	Sell-Side	✓
	Custodian	✓	Vendor	✓

Activities to Assess Reconciliation Processes for Errors/Fails

Activities to Assess Reconciliation Processes for Errors/Fails			
#	**Implementation Steps**	**Organization Participants (Front, Middle, Back, IT, Vendor)**	**Supporting Systems**
1	Determine the redundant manual touchpoints and illiquid securities in the current system		
2	Automate the processes and streamline communication channels		

Activities to Assess Reconciliation Processes for Errors/Fails			
#	**Implementation Steps**	**Organization Participants (Front, Middle, Back, IT, Vendor)**	**Supporting Systems**
3	Ensure seamless flow of trade instruction from one counterparty to another		
4	Coordinate changes amongst all stakeholders		
5	Test the new systems in place		
6	Schedule and execute system changes		

9.3.5 Buy-Side Considerations

To accelerate the settlement cycle, the SEC has made amendments to the recordkeeping rule for buy-side participants such as investment advisers. Registered investment advisers will be required to make and keep records of the allocations, confirmations, and affirmations for securities transactions subject to the requirements of Rule 15c6-2(a).

The current rule requires registered investment advisors to maintain records of all written communication related to placing and executing any order to purchasing and selling of any security. The change in the rule will further extend this requirement to retaining allocation, confirmation, and affirmation information.

Buy -side firms should begin analyzing which processes are manual or have multiple touchpoints. Post this analysis, firms will likely identify the need for new technology that can be implemented to automate such processes. Buy-side firms will need to assess the impact to determine the appropriate steps to comply with the final rule.

Buy-side firms should not underestimate the importance of having STP standards and practices in place to meet same-day affirmation to ensure timely settlement on T+1.

The dimensions below should be considered for buy-side considerations:

Dimension	Impacted?	Summary of Risk
Business Model	Potential Impact	Final rule shifts the recordkeeping and record retention obligation to the investment managers to keep records of all steps of allocation, affirmation, and confirmation.
Product Type	Potential Impact	Buy side participants will have to identify processes and controls that can be automated and updated for them to remain effective.
Vendor & Service Bureau Support	Potential Impact	Services that fail to properly record and retain information about trade allocation, affirmation, and confirmation as per the proposed change under T+1 could cause inconvenience for customers' trades. T+1 will require documentation language

Dimension	Impacted?	Summary of Risk
		updates that will impact resourcing and delivery processes (including the associated technology vendors) for buy-side.
Trading Venue	None	Minimal to no risk has been identified for trading venue.
Risk & Compliance	Potential Impact	Governance and escalation frameworks need to be in place to ensure compliance to the new final rule. Having a bespoke program in place to understand how best changes in the new accelerated cycle can be incorporated will be key.
Customer Experience	Potential Impact	The failure to comply with the new proposed changes of record keeping and retention by buy-side firms may impact the timely allocation, affirmation, and confirmation of trades of the customer.
Technology Enablers	Potential Impact	Firms should look for technology solutions that can assist them to get to T+1 by analyzing their internal processes to adhere to the new timeline changes in the settlement cycle.

The participants impacted table below indicates which industry participants are most likely impacted by buy-side considerations:

Participants Impacted				
	Buy-side	✓	**Sell-side**	
	Custodian	✓	**Vendor**	✓

9.3.5.A. Assess Buy-Side Considerations

Organizations should assess their existing systems and look out for opportunities for automation of processes.

Activities to Assess Buy-Side Considerations

Activities to Assess Buy-Side Considerations			
#	**Implementation Steps**	**Organization Participants (Front, Middle, Back, IT, Vendor)**	**Supporting Systems**
1	Revisit the internal processes, begin impact analysis, and look for investment opportunities that can accelerate change		
2	Identify processes that can be automated and controls that need to be updated		
3	Update systems to incorporate new recordkeeping changes related to trade allocation, affirmation, and confirmation		

Activities to Assess Buy-Side Considerations			
#	**Implementation Steps**	**Organization Participants (Front, Middle, Back, IT, Vendor)**	**Supporting Systems**
4	Schedule and execute system, process, and documentation changes		
5	Test the processes and assess to solve outstanding issues		

9.4.6 Additional Recommendations and Considerations

9.3.6.A. Automation Considerations

While many firms have invested in communication protocols and standards that enable STP, there is a significant population of managers and clients where automation investment is limited to non-STP solutions (e.g., creation of automated emails, PDF documents via email) which essentially mimic FAX processes.

In addition, matching through CTM is not a flawless process. Higher volumes of trades typically result in an increase in errors that require manual intervention. Furthermore, technical issues regarding connectivity to CTM are not uncommon, delaying a broker or manager in sending matching instructions.[36]

Given the above issues, organization should evaluate their current processes (e.g., CTM processes) and review where automation has been applied and confirm its suitability and efficacy in reducing manual touchpoints across the trade lifecycle.

[36] ISITC Board reply to SEC - s70522-20122887-279255.pdf (sec.gov)

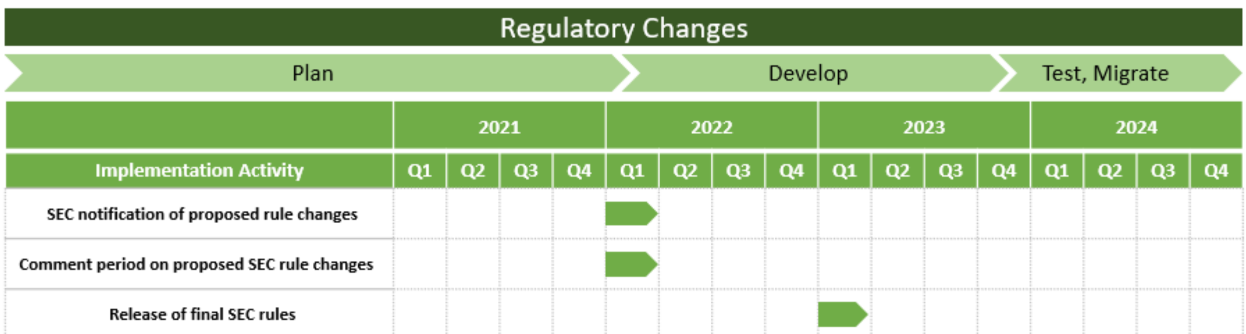
10 Regulatory Changes

10.1 Introduction

On February 15th, 2023, the Securities and Exchange Commission released the Final Rule to shorten the standard settlement cycle for most broker-dealer transactions from two business days after the trade date (“T+2”) to one business day after the trade date (“T+1”).

10.2 Timeline and milestones

The following timeline illustrates the projected regulatory change activities and milestones necessary to meet a May 28, 2024, T+1 implementation:



10.3 Impact Assessment and Implementation Considerations

Organizations need to assess rule changes and regulatory reporting for T+1 settlement. The dimensions detailed below should be considered for regulatory assessment:

Dimension	Impacted?	Summary of Risk
Business Model	None	The IWG determined no or minimal risk. Organizations should perform a risk assessment.
Product Type	Potential Impact	Various product types (e.g., equities, fixed income, mutual funds, and derivatives) should be reviewed to ensure that systems and data linked to these product types support upstream and downstream changes for the shortened settlement period.
Vendor & Service Bureau Support	Potential Impact	Vendors and service bureaus that do not properly apply rule changes could cause risk (e.g., operational, financial, and reputational) to their customer organizations.
Trading Venue	None	The IWG determined no or minimal risk. Organizations should perform a risk assessment.
Risk & Compliance	Potential Impact	Risk (e.g., operational, financial, and reputational) and compliance issues may occur if rule changes are not properly applied for T+1 settlement.

Dimension	Impacted?	Summary of Risk
Customer Experience	Potential Impact	Incorrectly applied rule changes may impact external clients (e.g., failed trades) and cause risk (e.g., operational, financial, and reputational).
Technology Enablers	Potential Impact	Issues may occur across an organization's technology platforms if rule changes are not comprehensively applied, potentially resulting in risk (e.g., operational, financial, and reputational).

The participants impacted table below indicates which industry participants are most likely impacted by regulatory changes:

Participants Impacted				
	Buy-Side	✓	**Sell-Side**	✓
	Custodian	✓	**Vendor**	✓

10.3.1 Regulatory changes

10.3.1.A. Assess Rule Changes and Regulatory Reporting

The Securities and Exchange Commission ("Commission") released its Final Rule[37] to shorten the standard settlement cycle for most broker-dealer transactions from two business days after the trade date ("T+2") to one business day after the trade date ("T+1"). As part of the rule release, the Commission included, *inter alia*, the following key rule changes:

- 15c6-1(a): change standard settlement for most securities transactions from two business days after trade date (T+2) to one T+1.
- 15c6-1(b): codify an exclusion of security-based swaps from the requirements of 15c6-1(a).
- 15c6-1(c): shorten the separate standard settlement cycle for firm commitment offerings priced after 4:30 p.m. from four business days after trade date (T+4) to T+2.
- 15c6-1(d): Retain the ability for underwriters and parties to agree in advance of a transaction to a settlement cycle other than the standard settlement cycle.
- 15c6-2: Require a broker-dealer to either enter into written agreements as specified in the rule or establish, maintain, and enforce written policies and procedures reasonably designed to address certain objectives related to completing allocations, confirmations, and affirmations as soon as technologically practicable and no later than the end of trade date.
- 17 CFR 275.204-2: Require registered investment advisers to make and keep records of the allocations, confirmations, and affirmations for securities transactions subject to the requirements of Rule 15c6-2(a)
- 17 CFR 240.17Ad-27: require clearing agencies that provide a central matching service ("CMSPs") to establish, implement, maintain, and enforce policies and procedures reasonably designed to

[37] Final Rule

facilitate straight-through processing ("STP") and to file an annual report regarding progress with respect to STP.

- 17 CFR Part 232 ("Regulation S-T"): Require that a CMSP submit the annual report required by Rule 17Ad-27 using the Commission's EDGAR system and tag the information in the report using the structured XBRL.

Coordinated regulatory support, along with the in-depth preparation of market participants, will ensure a carefully executed migration without market disruptions or harmful impacts to investors. While the following is not an exhaustive list, the below rules are expected to change for T+1 implementation:

Rules that Specifically Reference T+2[38]	
Regulation	**Description**
SEC Rule 15c6-1(a)	A broker or dealer shall not affect or enter into a contract for the purchase or sale of a security that provides for payment of funds and delivery of securities later than the second business day after the date of the contract, subject to certain exceptions
SEC Rule 15c6-1(c)	SEC Rule 15c6-1(a) shall not apply to contracts for the sale for cash of securities that are priced after 4:30PM ET on the date such securities are priced and that are sold by an issuer to an underwriter pursuant to a firm commitment underwritten offering registered under the Securities Act of 1933 or sold to an initial purchaser by a broker-dealer participating in such offering provided that a broker or dealer shall not effect or enter into a contract for the purchase or sale of such securities that provide for payment of funds and delivery of securities later than the fourth business day after the date of the contract unless otherwise expressly agreed to by the parties at the time of the transaction
MSRB Rule G-12(b)(ii)(B), G-15(b)(ii)(B)	Settlement dates shall be as follows: (B) for "regular way" transactions, the second business day following the trade date
MSRB Rule G-32(a)(i) et. al.	"No broker, dealer or municipal securities dealer shall sell any offered municipal securities to a customer unless such broker, dealer or municipal securities deliver delivers to the customer by no later than the settlement of the transaction a copy of the official statement"

[38] The list is not meant to be comprehensive of all rules that reference T+2.

Rules that Specifically Reference T+2[38]	
Regulation	**Description**
FINRA Rule 11320(b)[39]	In connection with a transaction “regular way,” delivery shall be made at the office of the purchaser on, but not before, the second business day following the date of the transaction
NYSE Rule 64(a)	Bids and offers in securities of the United States Government admitted to dealings on an "issued" basis shall be made only as the "regular way" for that security i.e., for delivery on the business day following the day of the trade
NASDAQ Rule 11320(b), 11140(b)(1), Done11150(a)	In connection with a transaction "regular way," delivery shall be made at the office of the purchaser on, but not before, the second business day following the date of the transaction
OCC Regulation, Part 12.9(a)	All contracts effected or entered into by a national bank for the purchase or sale of a security shall provide for completion of the transaction within the number of business days in the standard settlement cycle followed by registered broker dealers in the United States
FDIC Rules and Regulations, Part 344.7(a)	All contracts effected or entered into by an FDIC-supervised institution that provides for the purchase or sale of a security shall provide for completion of the transaction within the number of business days in the standard settlement cycle
FINRA Rule 11860(a)(4), 11140(b)(1), 11150(a)[40]	No member shall accept an order from a customer pursuant to an arrangement whereby payment for securities purchased or delivery of securities sold is to be made to or by an agent of the customer unless a certain set of procedures are followed
NYSE Rule 235, 236	Transactions in stocks except those made for "cash" as prescribed in Rule 14, shall be ex-dividend or ex-rights on the second business day preceding the record date fixed by the corporation or the date of the closing of transfer books

[39] FINRA published its rule changes to conform to exchange act Rules 15c6-1 and 15c6-2 to Shorten the Standard Settlement Cycle for Most Broker-Dealer Transactions; SR-FINRA-2023-017 | FINRA.org

[40] FINRA published its rule changes to conform to exchange act Rules 15c6-1 and 15c6-2 to Shorten the Standard Settlement Cycle for Most Broker-Dealer Transactions; SR-FINRA-2023-017 | FINRA.org

Rules that Specifically Reference T+2[38]	
Regulation	**Description**
MSRB G-12(b)(ii)(C), (D), G-15(b)(ii)(C)	Outlines uniform practices for the processing and settlement of municipal securities
SEC 1994 Prime Brokerage No Action Letter	Principally, describes the prime brokerage arrangement, confirms that securities trades executed by a customer with an EB for give-up to a prime broker does not violate the "free-rider" rule in Regulation T, as well as setting forth the division of responsibilities, rights, and obligations among a prime broker, an EB, and their mutual customer
SEC Rule 10b-10 (Confirmation delivery requirements)	Requires broker-dealers to send customers a written confirmation on or before the completion of a transaction
Reg SHO	Rules establish order marking, "locate" and "close-out" requirements aimed at curtailing naked short selling and other abusive practices
Federal Reserve Board Regulation T	Governs cash accounts, as well as the amount of credit that broker-dealers can extend to investors for the purchase of securities
SEC Rule 15c3-3 (Customer Protection)	The rule dictates the amount of cash and securities that broker-dealer firms must segregate in specially protected accounts on behalf of their clients
SEC Rule 15c2-8(b)	Requires such broker or dealer to "deliver a copy of the preliminary prospectus to any person who is expected to receive a confirmation of sale at least 48 hours prior to the sending of such confirmation."

The Municipal Securities Rulemaking Board (MSRB) received approval from the U.S. Securities and Exchange Commission (SEC or "Commission") on May 25, 2023, for amendments to MSRB Rules G-12, on Uniform Practice, and G-15, on Confirmation, Clearance, Settlement and Other Uniform Practice Requirements with Respect to Transactions with Customers, to shorten the settlement cycle from the current trade date plus two days (T+2) to trade date plus one day (T+1).[41]

In addition, DTCC will have to make changes to its Rules and Service Guides to accommodate the move to a T+1 Settlement Cycle.

[41] MSRB Rules G-12 and G-15 to Define Regular-Way Settlement for Municipal Securities Transactions, https://www.msrb.org/sites/default/files/2023-05/2023-06.pdf

11 Testing and Migration

11.1 Introduction

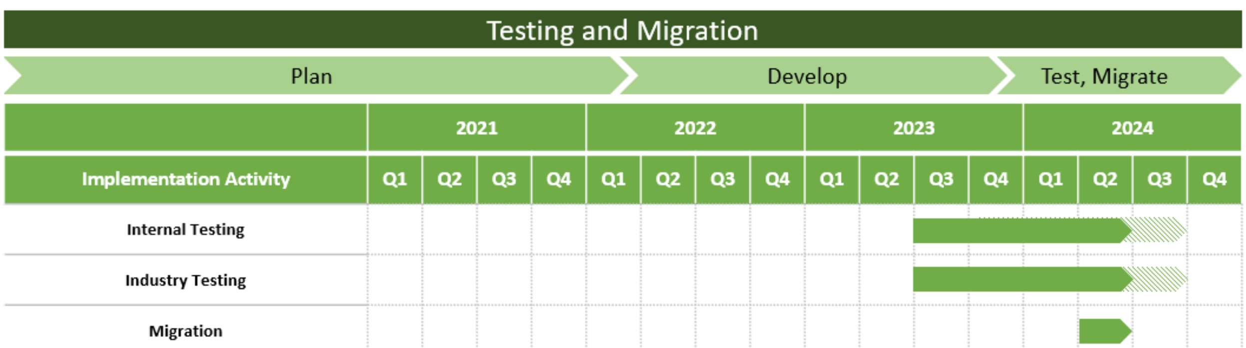
Organizations will need to develop and execute test plans that align with a U.S. T+1 migration date of May 28, 2024. Testing will need to be performed iteratively throughout implementation to achieve readiness for the migration to T+1. Testing should include internal system testing, vendor and service bureau integration testing, and industry testing to be completed with DTCC.

Organizations should develop test plans for the following areas:

- Testing of the changes implemented to meet requirements for a T+1 settlement cycle
- Regression testing to verify continuity of upstream or downstream functions
- Integration testing with Exchanges, vendors, and service bureaus
- Participation in industry testing

11.2 Timeline and Milestones

The following timeline shows internal testing, industry testing, and migration activities and milestones necessary to meet a May 28, 2024, U.S. T+1 implementation:



11.3 Impact Assessment and Implementation Considerations

The dimensions detailed below should be considered related testing and migration in a T+1 settlement:

Dimension	Impacted?	Summary of Risk
Business Model	None	The IWG determined no or minimal risk. Organizations should perform a risk assessment.
Product Type	Potential Impact	Trades involving various securities could process incorrectly or fail if testing is not comprehensive across product types.
Vendor & Service Bureau Support	Potential Impact	Vendors and service bureaus that do not properly test systems, data, and processes provided to their customer organizations could cause risk (e.g., operational, financial, and reputational) to those organizations.
Trading Venue	Potential Impact	Test plans will need to be developed for each trading venue included in industry testing.

Dimension	Impacted?	Summary of Risk
Risk & Compliance	Potential Impact	Risk (e.g., operational, financial, and reputational) and compliance issues may occur if systems, data, and processes are not included in test plans and testing is not fully executed for T+1 settlement.
Customer Experience	Potential Impact	Insufficient testing may cause upstream and downstream implications for internal functions and impact external customers.
Technology Enablers	Potential Impact	Incomplete testing of an organization's technology platforms may lead to operational issues across internal functions and an inability to implement the shortened settlement lifecycle.

The participants impacted table below indicates which industry participants are most likely impacted by testing and migration plans:

Participants Impacted				
	Buy-Side	✓	Sell-Side	✓
	Custodian	✓	Vendor	✓

11.3.1 Develop Internal and Industry Test Plans

11.3.1.A. Internal Testing

Individual organizations will need to develop test plans for both internal and industry testing. Organizations should review applicable scenarios for production and validation. While developing internal test plans, organizations should consider the impact of the implementation changes, the creation of representative test data, and the scheduling of testing to be prepared to participate in industry testing. Test data volumes should also be considered for double settlement and bank holidays. The IWG suggested reviewing settlement volumes from existing industry double settlement and bank holiday dates as a baseline estimate.

Internal testing should occur in 2023 for individual organizations as they prepare for T+1 implementation. Testing should include people, processes, asset classes and technology impacted by the shortened settlement cycle, for example:

- Internal system and data changes
- Internal process adjustments
- Operating procedures and documentation updates
- Regression testing on upstream and downstream systems, data, and processes
- Vendor and service bureau changes affecting the organization
- Stress testing using the double settlement day volume
- Corporate action expiration and cover/protect date processing (guarantee of delivery)

11.3.1.B. Industry Testing

DTCC and the industry will plan and coordinate industry testing for DTCC services that will be impacted with a move to a T+1 settlement cycle. DTCC's high-level and detailed testing plans[42] have been distributed to the industry. DTCC is offering its T+1 test environment beginning August 14, 2023, through May 31, 2024, to allow participant to conduct end-to-end testing. Additionally, scripted tests are planned to test various processing scenarios.

It is expected that most DTCC participants will take part in industry testing. DTCC does not plan to mandate testing but is highly recommending that the industry complete testing will enable them to be ready to support a T+1 settlement cycle. In addition to the industry testing to be coordinated by DTCC, other external testing may also need to occur within organizations that settle certain trades outside of the DTCC services.

Various components that the industry test plan includes:

- Timelines
- Environments
- Utilities
- Exchanges to allow full end-to-end testing
  - ITP test environment with trade validations to feed NSCC and DTC
  - NSCC clearing services from UTC through to CNS
  - DTC processing with revised schedules and cut-off times
- Test data requirements and provisions
  - Mock counterparties for executions (or coordinated matches to be determined)
  - DTCC will assign specific CUSIPs to create various scripted test conditions, (e.g., corporate actions)
    - CNS and non-CNS eligible CUSIPs (multilateral guaranteed, bilateral, trade for trade)
    - DTC will establish certain CUSIPs with security position to enable transactions to settle and some CUSIPs with no position to allow transactions to drop
  - Corporate action scripted test conditions will be created to enable market participants to test various corporate action scenarios
    - "Regular way" ex-date and "irregular way" ex-date changes
    - Cover/protect date changes
- NSCC will define regular way settlement as T+1 for the following products:
  - Equity trades into the UTC process
  - Corporate bonds, municipal bonds, and UITs into the CMU RTTM process
  - ETF Create and Redeem processes
- Success criteria
- Readiness requirements
  - Industry testing will not be mandated; but it is highly recommended that firms test all impacted processes that are needed to move to a T+1 settlement cycle

[42] UST1 Detailed Test Document

- This includes vendors and service bureaus

- DTCC will utilize its existing test environment for T+1 industry testing. This test environment will support all NSCC, DTC and ITP T+1 industry testing requirements
- Given the duration of the T+1 test and the scope of the T+1 changes, DTCC will establish a second T+2 test environment, to operate in parallel with the T+1 test environment. To minimize the work required for members to connect to a new DTCC test environment, the existing DTCC environment will be modified to support T+1 testing. Only members looking to test functionality in a T+2 environment during the T+1 testing period will need to connect to the new DTCC T+2 test environment

11.3.1.C. Testing Dimensions

Organizations will need to take a holistic view of testing in additional to Internal and Industry testing. It is recommended that firms consider the following testing:

- Functional testing: Testing accounting for functional changes to internal technology and operational processes.
- Transactional testing: Complete spectrum of test cases across client types, asset classes, and transaction types, on peak volume days.
- Client testing: Firms need to understand, plan, and execute client testing. Considerations include a firm's internal lens and the testing required by clients.
- Operational testing: As industry deadlines and batch cycle times change, the integration of processes across platforms is critical in the testing strategy.
- Resiliency testing: Firm testing strategies must account for non-optimal client behavior, post-settlement date actions, and system outages.

Activities to Develop Test Plans

Activities to Develop Test Plans			
#	**Implementation Steps**	**Organization Participants (Front, Middle, Back, IT, Vendor)**	**Supporting Systems**
1	Draft test plan		
2	Confirm readiness with vendors and service bureaus to determine static data and software field updates for internal systems		
3	Develop internal testing scenarios and data		
4	Conduct internal testing and evaluate results		
5	Coordinate external testing with internal and external stakeholders		
6	Conduct external testing and evaluate results		
7	Conduct post-migration testing activities		

11.3.2 Migration

11.3.2.A. Prepare for Migration to T+1

SIFMA, ICI, and DTCC, and in discussion with regulators and SROs, will develop a plan (e.g., "run book") for the T+1 migration period, including the selection of the migration date and contingency or exception handling protocols. The selection of the migration date is an important step in the T+1 implementation process. The migration plan will include industry T+1 Command Center activities around the migration date and during the period afterwards to coordinate cutover activities, manage challenges that may arise, and field questions or requests for information. Each organization should consider creating an office or function to manage migration related activities, and organization contingency plans that may be necessary given the processes and dependencies of their operations.

The migration to the shortened settlement cycle will result in the settlement of two days of trades on the same day (e.g., double settlement). This additional settlement volume is not expected to be an issue as double settlement currently occurs in the T+2 environment (e.g., Columbus Day, Veteran's Day). Further details on migration will be defined in the plan. In addition, the ISC should suggest that issuers consider a blackout period for corporate action events over the migration time period.

Beginning Q2 2022, the IWG will meet on a quarterly basis (through year end) and then on a monthly (beginning January 2024) through the migration to T+1.

11.3.2.B. Review Processes Related to Claiming Failed Deliveries, Recalling Securities, and Tracking Pending Trades Prior to Migration

Organizations that trade around voluntary reorganization expiration dates must review their processes prior to moving to T+1 in order to claim failed deliveries, recall securities, and track trades pending settlement.

Organizations should review processes around migration, including processes related to voluntary reorganization expiration dates, specifically failed deliveries, recall of securities, and pending trades prior to migration to T+1. These considerations include, but are not limited to the following:

- Claim Failed Deliveries: Organizations should review, and adjust as necessary, processes for identifying and claiming failed trades in the T+1 environment. Although the process for claiming failed deliveries will not change, the timeframe will be shortened by one day.
- Recall Securities: The process of recalling securities will need to be revised to account for the shortened settlement cycle. Organizations should review, and adjust as necessary, recall processes. Organizations should revisit their proxy voting policy to determine the impact of the move to T+1. Operational risk can be mitigated through active monitoring of security lending recalls.
- Pending Trades: Organizations should review internal processes (e.g., trade financing) to ensure that tracking of pending trades is updated to account for the shortened settlement period. This may include online and offline reports, internal processes, and data points within systems used to help facilitate the process.

12 Path forward

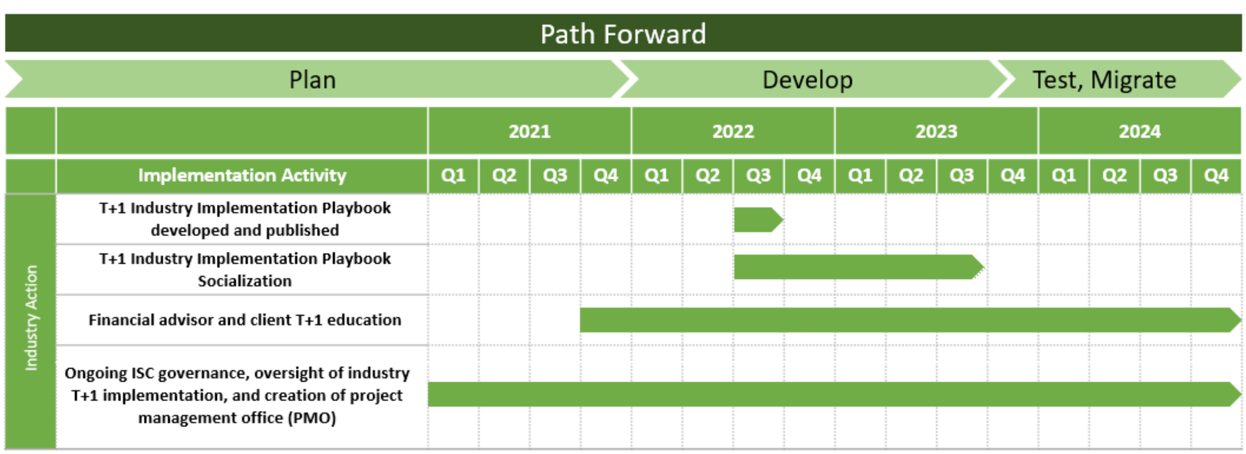
12.1 Introduction

As was done in 2017 for the move to T+2 settlement, the ISC developed and delivered this Playbook to market participants to assist the industry with the migration to T+1 settlement. Needless to say, the journey to T+1 settlement is not complete. Going forward the ISC will develop a plan and governance process for communicating the structure, processes, and resources that will be necessary for market participants to transition to a T+1 environment. The ISC will be responsible for the following:

- Continued assessment of industry and market participant preparedness
- Developing an industry-wide communication and socialization plan
- Identifying and escalating potential risks
- Creating a T+1 Command Center to guide the industry to T+1 settlement through supplying economic impact analysis, facilitating industry awareness, publishing industry progress reports, publishing FAQs, and update this playbook
- Providing leadership during the period leading up to the migration to T+1

12.2 Timeline and Milestones

The following timeline illustrates the industry actions and milestones necessary to meet a May 28, 2024, U.S. T+1 implementation:



12.3 Next Step Activities

The list below highlights some of the path forward activities that should take place through the T+1 implementation:

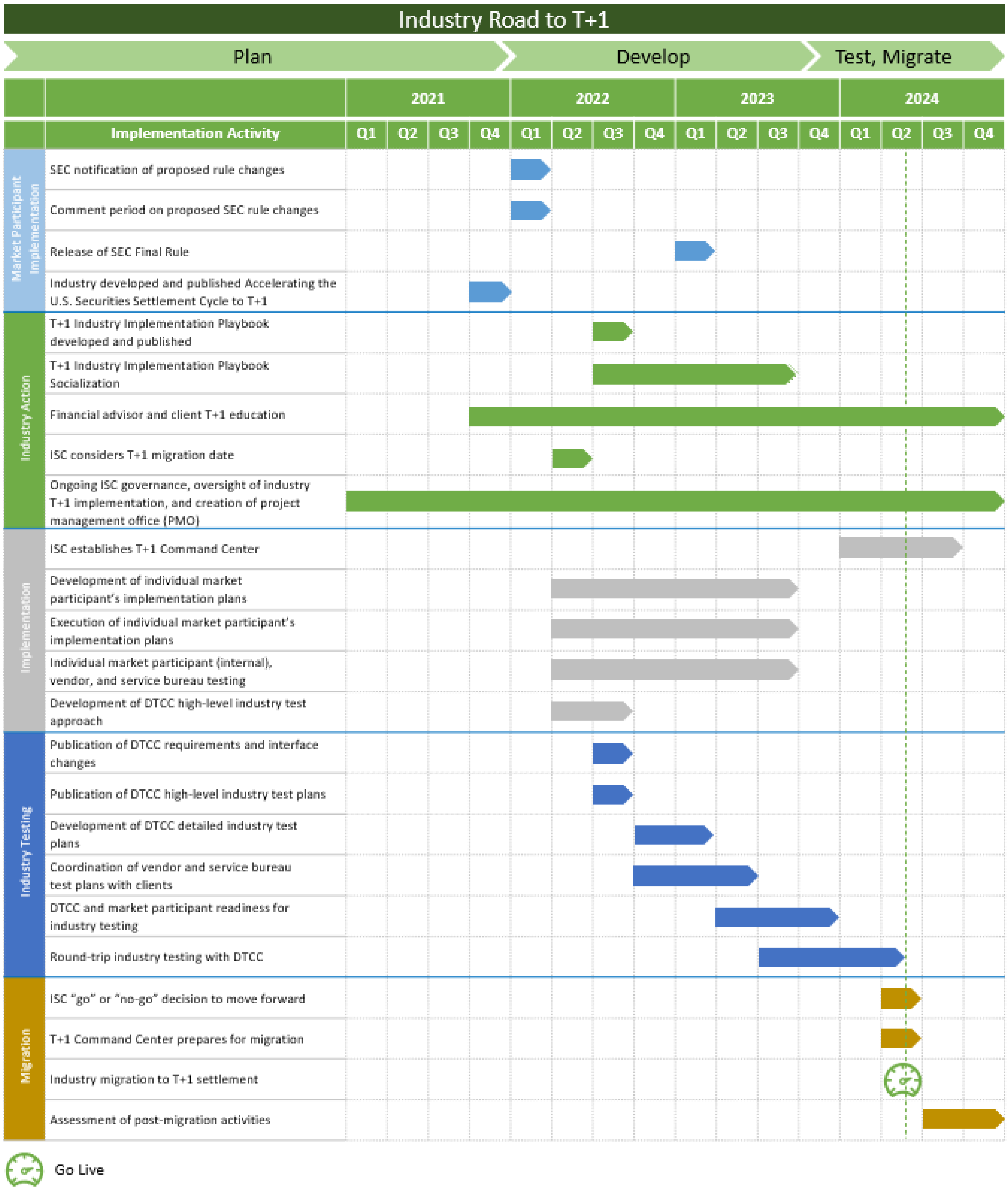
#	Next Step	Scope of Step
1	Playbook socialization	• ISC to publish Playbook • Playbook education and socialization dates to be set for industry sessions
2	Regulatory updates	• ISC will continue to advocate timely regulatory rule changes
3	Migration date agreement	• ISC in discussion with regulators will agree on a migration date and advise markets participants
4	PMO establishment	• Establishment of an industry level PMO • Organization should also establish PMO to capture market participant announcements and track implementation activity progress
5	T+1 Command Center creation	• ISC will create a T+1 Command Center to assist with T+1 announcements and issue resolution
6	Proposed rule change notification and comment Periods	• SRO and SEC notification of proposed rule changes • Comment period on proposed SRO and SEC rule changes • DTCC notification of proposed rule changes
7	Additional market requirement changes	• New issues or additional implementation activities that organizations may want to address should be raised to the ISC team, so they can be shared and discussed with the industry
8	Testing	• Develop and execute internal test plans • Develop and execute external test plans • Industry testing and certification
9	Post-migration planning	• Industry metric planning • Industry operational check points

12.4 Summary

This document can serve as a guide for impacted market participants that will need to make operational process, technological, and personnel changes to prepare for migration to a T+1 settlement cycle. It provides a high-level approach with recommended implementation activities and associated timelines that organizations can leverage internally and in discussions with customers and counterparties. When combined with the DTCC testing documentation and testing documentation, organizations will have a comprehensive plan that can be used as an end-to-end roadmap for readiness activities leading up to the May 28, 2024, U.S. T+1 migration date.

13 Appendix

13.1 T+1 Industry Implementation Timeline & Milestones

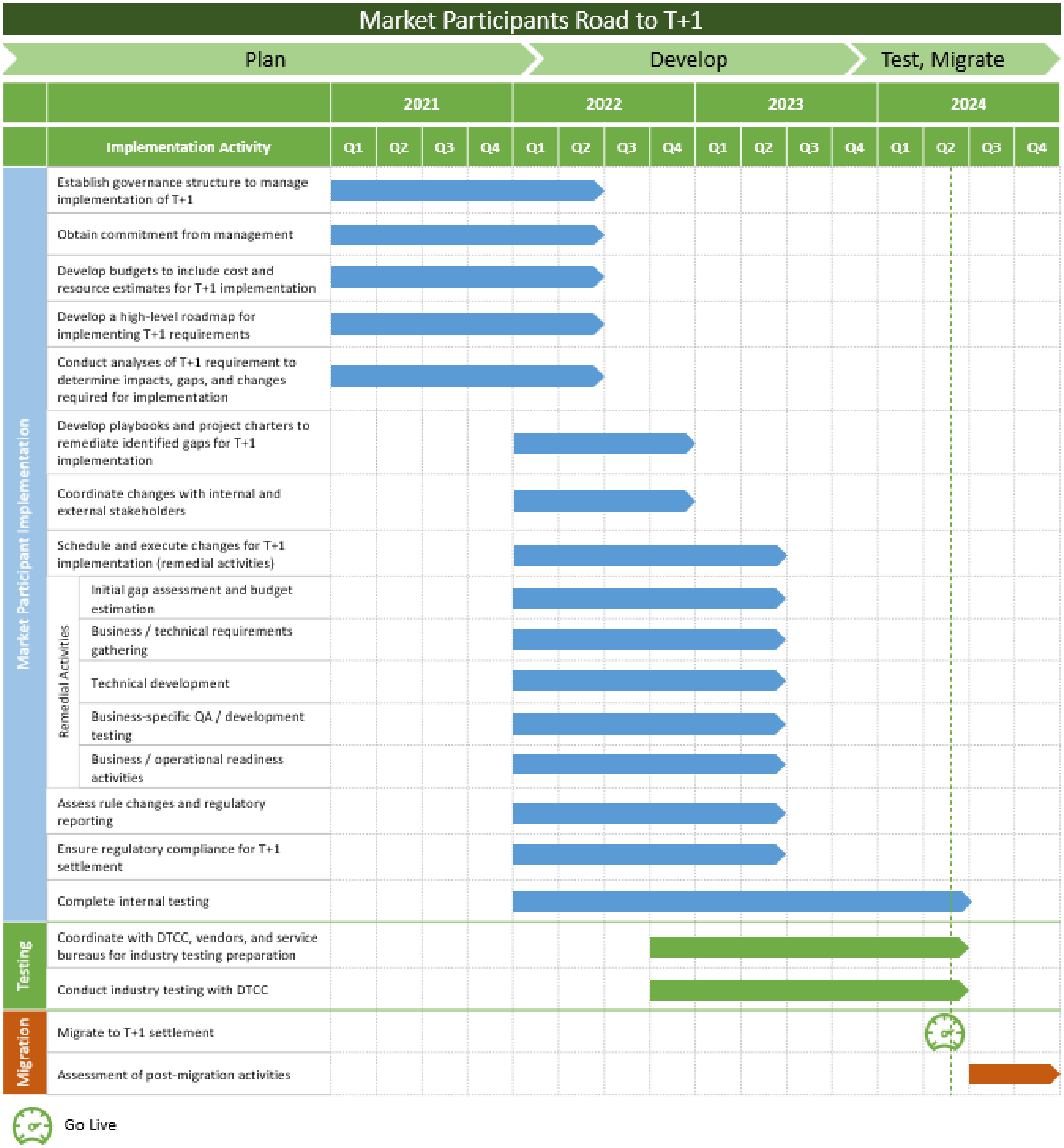


13.2 T+1 Industry Implementation Activity Dependencies

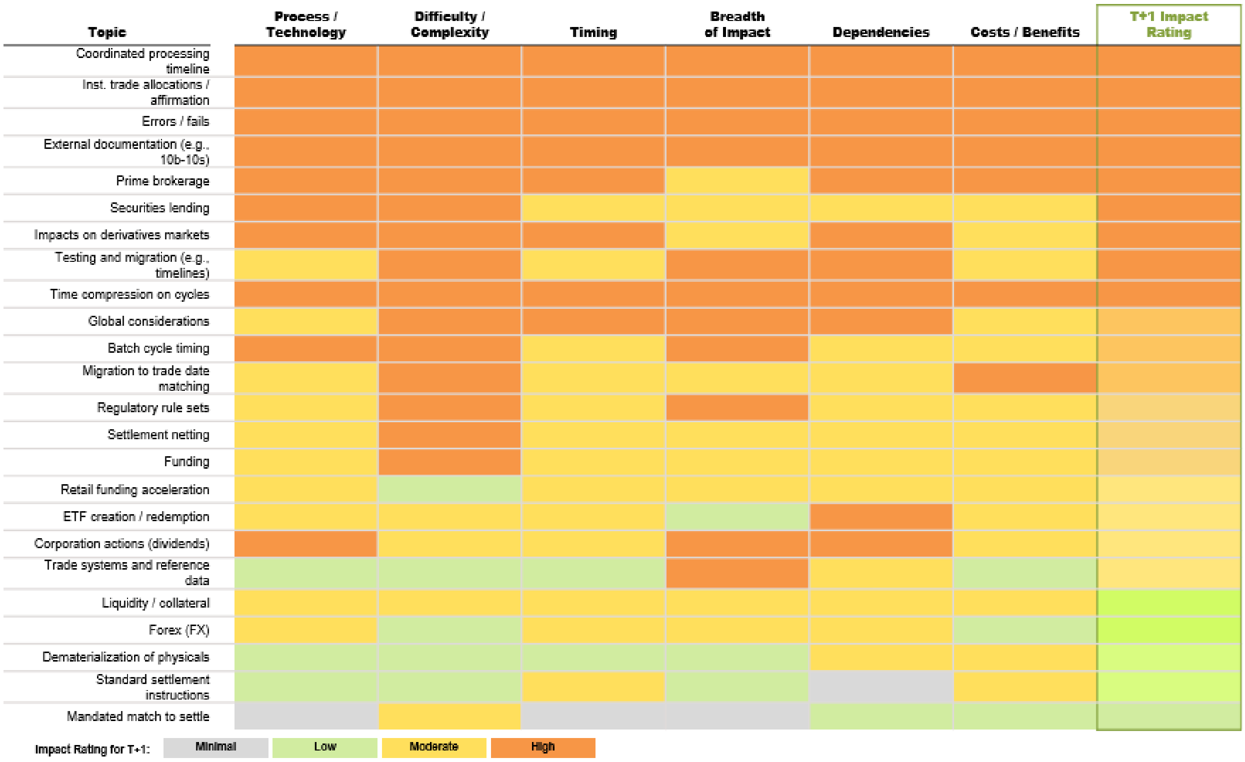
	Implementation Activity	Dependency
Industry Action	T+1 Industry Implementation Playbook developed and published	Review of industry systems and Procedures
	T+1 Industry Implementation Playbook Socialization	Dependent upon successful publication of Playbook
	Financial advisor and client T+1 education	Dependent on successful publication of the Playbook
	Industry Steering Committee (ISC) considers T+1 migration date	Dependent upon agreement of the ISC and the industry
	Ongoing ISC governance, oversight of industry T+1 implementation, and creation of project management office (PMO)	Dependent on path forward approach and scheduling approach by the ISC to engage the industry on a predetermined schedule
Implementation	ISC establishes T+1 Command Center	Dependent upon selection of migration date
	Development of individual market participant's implementation plans	Dependent on proposed rules; should not be dependent of final rule set
	Execution of individual market participant's implementation plans	Dependent on the build and scope of development of market participant plans and final rules
	Individual market participant (internal), vendor, and service bureau testing	Dependent upon internal vendor and service bureau system enhancements, procedural updates, and internal user acceptance sign-off
	Development of DTCC high-level industry test approach	Dependent on the preliminary DTCC test plan and creation of DTCC T+1 Functional
Industry Testing	Coordination of vendor and service bureau test plans with clients	Dependent upon completion of individual market participant implementation, vendor, service bureau, and DTCC readiness
	DTCC and market participant readiness for industry testing	Dependent on DTCC detailed industry test plan and environment configuration
	Round-trip industry testing with DTCC	Dependent on DTCC and market participant testing readiness
Migration	ISC "go" or "no-go" decision to move forward	Dependent on ISC review of testing results and overall readiness determination
	T+1 Command Center prepares for migration	Dependent on DTCC and market participant testing readiness

	Implementation Activity	Dependency
	Industry migration to T+1 settlement	Dependent on the industry “go” or “no-go” decision
	Assessment of post-migration activities	Dependent on migration to T+1

13.3 T+1 Market Participant Implementation Timeline & Milestones



13.4 Heat Map



13.5 Product List

T+1 Impacted Product Scope[43]
Equities
Common Stock
Common Stock Real Estate Investment Trust (REIT)
Convertible Common Stock
Equity Units
Equity Derivatives
Preferred Stock
Preferred Stock REIT
Tender Rate Preferred Stock
Auction Rate Preferred Stock
Convertible Preferred Stock
Preferred Perpetual
American Depositary Receipts (ADR)
Exchange Traded Funds (ETF)
Exchange Traded Products
Exchange Listed Limited Partnerships
Exchange Traded Notes

[43] Securities that settle at the Federal Reserve are not included. This list relates only to DTC eligible securities.

T+1 Impacted Product Scope[43]
Mutual Funds
Fixed Income
Corporate Debt or Global Corporate Bond
Medium-Term Note
Corporate Debenture
Corporate Debt Derivative
Corporate Auction Rate Note
Convertible Corporate Debt
Debt Units
Zero Coupon Bond
Pass Thru Certificates (Corporate Debt)
Zero Coupon Denominated in Initial Principal Amount
Bearer/Callable Zero-Coupon Bond
Equipment Trust Certificate (Corporate Debt)
Demand Note
Corporate Other Tax Exempt
Corporate Insured Custodial Receipt
Credit Linked Note
Commodity Linked Note
Municipal Debt
Municipal Auction Rate Note
Municipal Insured Custodial Receipt
Index Linked (Municipal Bond)
Municipal Variable Mode Obligation (VMO)
Municipal Option Call Right
Municipal Other Tax Exempt
Municipal Other Tax Exempt
Municipal Note
Municipal Amortized Issue
Municipal Insured Custodial Receipt
Stepped Coupon (Municipal Bond)
Municipal Bond
Asset-Backed Security (ABS) or Global ABS
CMO Floater (non-agency)
Collateralized Mortgage Obligation (CMO)
Sinkable Floater (ABS)
Collateralized Loan Obligation
Mortgage-Backed Securities[44]
Structured Product
Non-CMO/ABS Amortizing Issue
Derivatives

[44] Mortgage-Backed Pass-Through Securities such as To Be Announced (TBAs) and Specified Pools that settle at the Federal Reserve are not included.

T+1 Impacted Product Scope[43]
Warrants
Rights
Money Market Instruments
Certificate of Deposit
MMI Institutional Certificates of Deposit
Certificated Money Market - Periodic Payer
MMI Medium Term Note
Certificated Money Market Instrument
MMI Medium-Term Bank Note
Commercial Paper (Money Market)
MMI Municipal Commercial Paper
MMI Bankers' Acceptance Note (BA)
MMI Corporate Commercial Paper
MMI Short-Term Bank Note
MMI Corporate VRDO/CP
MTN Medium Term Note
MMI Deposit Note
Municipal Amortized Issue
MMI Discount Note
Miscellaneous
Tender Rate Note
Unit Investment Trust (UIT)
When Issued Securities[45]
Corporate Insured Custodial Receipt
Limited Partnership
Private Investment Public Equity (PIPE)

[45] When issued securities trade when they are announced but not yet issued. However, when they are issued, they settle regular way.

13.6 Baseline Metrics for T+1

The dimensions columns are intentionally left blank to allow users of the Playbook customize the table to use during the analysis period. This table is meant to be used an exercise that firms can undertake.

T+1 Baseline Metrics				
Metric Category	**Metric**	**Dimensions**		
		Count/ Value	**Product**	**Legal Entity/Line of Business**
Trade Volume	U.S. Equities/DTCC eligible products			
	Fixed income (e.g., US treasuries/Bonds)/DTCC population			
	ETFs/ETNs			
	ADRs/MLPs			
Fail Rates	Metrics for trades unmatched from T+1:			
	Due to SSI mismatch			
	Due to product not being Setup			
	Due to inventory			
	Due to counterparty missing instructions			
	Due to mismatch on trade details			
	Due to ongoing corporate action event			
	Fails resolved by manual intervention			
	Fails resolved by Client sending correct trade file			
	Fails resolved by counterparty matching			
	Fails due to trades being “don’t know’d” (DK'd)[46]			
	Average Time to Resolve Fail			

[46] A DK’d trade results when one of the parties has a dispute or rejects the trade due to a given discrepancy.

T+1 Baseline Metrics				
Metric Category	**Metric**	**Dimensions**		
		Count/ Value	**Product**	**Legal Entity/Line of Business**
Allocation Rates	Average Daily Count of Allocations			
	Allocated on T			
	Allocated on T+1			
	Allocated on T+2			
	Percentage of allocations on trade date (T) after 7:00 PM ET			
	Number of clients not sending trades on T			
Affirmation Rates	Average Daily Affirmation Rate			
	Affirmed on T			
	Affirmed on T+1			
	Affirmed on T+2			
	Percentage of affirmations done after 9:00PM ET on T			
Buy-in (DTC)	Number of buy-in due to Insufficient Stock			
	Number of buy-in due to no locate in place			
	Buy-in due to settlement error			
	Number of buy-in due incorrect place of settlement (e.g., trade booked in Italy instead of DTC)			
Trade Errors	Number of trades manually touched everyday			
	Reason for trades being manually touched			

T+1 Baseline Metrics				
Metric Category	**Metric**	**Dimensions**		
		Count/ Value	**Product**	**Legal Entity/Line of Business**
	Trade failed due to manual error			
Corporate Actions	Average volume of corporate action events			
Securities Lending	Bi-lateral trades (daily, weekly, monthly, etc. for all)			
	Margin/Exposure/Collateral management			
	Contract Compare breaks			
	Delivery versus Payment (DVP) vs Free of Payment (FOP)			
	Recalls (Securities Industry Automation Corporation (SIAC), etc.)			
	Reg SHO 204 (failure to deliver)			
Payments	Number of manual checks			
	Average ACH timing			
	Average ACH volumes			

13. 7 T+1 Trade Processing Comparison Chart

The following chart lists the critical trade processing and settlement activities and deadlines identified by the IWG that will be impacted by T+1, either directly or indirectly, and involve one or more market participants. Rows highlighted in blue indicate a proposed change from the current-state (T+2) and are the proposed IWG recommendations for the future-state (T+1) processing timelines and deadlines.

Activity #	Activity Name	Current State Time	Future State Target[47] Time	ITP. DTC and NSCC Technical Names & Job Numbers	Dependencies
1	NAV Calculation Processing	6:00PM on T	6:00PM on T	N/A	
2	CTS 1 Report	9:00PM on T	10:00PM on T	CTS MACHINE READABLE OUTPUT MRO Autoroute#- 02042339- MRO CTS COMMA SEPERATED VALUES CSV Autoroute#- 02042340- CSV	Firm trade submissions in NSCC
3	CTS 2 Report	11:59PM on T	1:30AM on T+1	CTS MACHINE READABLE OUTPUT MRO Autoroute#- 02042339- MRO CTS COMMA SEPERATED VALUES CSV Autoroute#- 02042340- CSV	Firm trade submissions in NSCC
4	CNS Projection Report	12:30AM on T+1	2:00AM on T+1	MRO AutoRoute# 02042022 Print Image Autoroute# 02040009	
5	Fedwire Funds Opens	9:00PM on T	9:00PM on T	N/A	
6	Fedwire Funds Closing Time	7:00PM on T+1[48]	7:00PM on T+1	N/A	
7	1st ACH Deadline (1 PM S)	10:30AM on T+1	10:30AM on T+1	N/A	
8	ITP Affirmation Cutoff	11:30AM on T+1	9:00PM on T	N/A	Form 1 Schedule A
9	CTS 3 Report	11:45AM on T+1	1:45PM on T+1	CTS MACHINE READABLE OUTPUT MRO Autoroute#- 02042339- MRO CTS COMMA SEPERATED VALUES CSV Autoroute#- 02042340- CSV	Firm trade submissions in NSCC
10	ITP Cumulative Report	12:00PM on T+1	9:30PM on T	Technical file name=Cumeter	

[47] These are the expected Future State Targets times and not the DTC and NSCC SLA proposed times.

[48] https://www.newyorkfed.org/aboutthefed/fedpoint/fed43.html

Activity #	Activity Name	Current State Time	Future State Target[47] Time	ITP. DTC and NSCC Technical Names & Job Numbers	Dependencies
11	CNS Midday Projection File	12:00PM on T+1	5:00PM on T+1	CNS Midday Projection File (MRO Autoroute# 02042358)(Print Image Autoroute# 02042366)	
12	2nd ACH Deadline (5 PM S)	2:45 PM on T+1	2:45PM on T+1	N/A	
13	Prime Broker Disaffirmation	5:00PM on T+1	5:00PM on T+1 Disaffirmations between 9:00PM on T to 1:30PM on T+1 would result in reversal transactions being generated for same day settlement. If the original PB transaction is unsettled, the disaffirmation will net against the original transaction. If the original PB transaction is settled, the disaffirmation will result in new NSCC position to be settled. Both scenarios could impact both the PB and EB NSCC intraday margin requirements and could result in intraday margin calls. Disaffirmations between 1:31PM on T+1 to 5:00 p.m. on T+ 1 would result in reversal transactions being generated for the next day settlement day (S+1). Similar to above, if the original PB transaction is unsettled, the disaffirmation will net against the original transaction. If the original PB transaction is settled, the disaffirmation will result in new NSCC position to be settled. Both scenarios will impact both the PB and EB settlement day +1 NSCC margin requirement.	Input- TRADESUITE ID™ ADVICE OF CANCELLATION OR CORRECTION MESSAGE SPECIFICATION- AOT1 (MQ) or AOT5 (FTP and NDM) and the output messages are placed in a CDSC mailbox. Message Type on the message header is AOCCNF. Output- TRADESUITE ID Confirm Trade OutPut Message Specification- Input for Trade Confirmations is TRAM (MQ) or TRAC (FTP and NDM) and the output messages are placed in a CDSC mailbox. Message Type on the message header is CONFRM. Trade Cancellations and Attempt to Cancel records are confirms with updated status codes and would also be Message Type CONFRM.	

Activity #	Activity Name	Current State Time	Future State Target[47] Time	ITP. DTC and NSCC Technical Names & Job Numbers	Dependencies
14	Authorizations and Exemptions for ID, and CNS transactions	6:30PM on T+1	10:45PM on T	ID ANE	
15	Exemptions for ID Net transactions	11:30AM on T+1 to be eligible for DTCs Night Cycle process 11:30AM on SD for DTCs Day Cycle process	9:15PM on T to be eligible for DTCs Night Cycle Process 11:30AM on SD for DTCs Day Cycle process	ID Net	
16	CNS Position Prior to Night Cycle	7:30PM on T+1	9:30PM on T	MRO AutoRoute# 02040951 Print Image Autoroute# 02040950	
17	CNS Position Prior to the Day Cycle	12:30AM on T+1	2:00AM on T+1	MRO 02040949 Report 02040950	
18	DTC Night Cycle Batch Process Begins	8:30PM on T+1	11:30PM on T	N/A	Deliver Orders
19	DTC Night Cycle Batch Process Completed	10:30PM on T+1	1:30AM on T+1	N/A	
20	DTC Night Cycle Output	10:30PM on T+1	1:30AM on T+1	Technical file name=DTCPDQ Output = DTFPDQ	
21	Initial NSCC Margin Calls Placed	2:00AM on T+1	2:00AM on T+1	N/A	NSCC Margin Calculations
22	Fedwire Securities movement opens	8:30AM on T+2	8:30AM on T+1	N/A	N/A
23	NSCC Funding Due	10:00AM on T+1	10:00AM on T+1	N/A	
24	DTC Delivery Cutoff for Valued Transactions	3:00PM on T+2 3:10PM on T+2 (recycle cutoff)	3:10PM on T+2	N/A	
25	DTC Delivery Cutoff for Free Deliveries	6:15PM on T+2	6:15PM on T+1	N/A	
26	Close of Business Settlement	3:45PM on T+2	3:45PM on T+1	N/A	
27	Memo Seg	24x5 (Typically, 3AM-8AM)	24x5 Best Practice: 9PM - 11PM	Output File MEMOSG (4.06): Memo Segregation Activity DTFMEM (4.05): Memo Segregation Balances	

Activity #	Activity Name	Current State Time	Future State Target[47] Time	ITP. DTC and NSCC Technical Names & Job Numbers	Dependencies
				MQ SEG (20.06): SEG and MEMOSEG (Output) Input File SEG1/5 (4.08): Segregation/Memo Segregation/Investment ID Input File ISO Input ISO 15022 Message Layouts - Segregation/Seg Release/Memo Segregation/Investment ID/Investment ID Release Input ISO Output- ISO MSEG output is the standard long form MT548 Best practice for Memo Seg between 9pm and 11pm should be used to make adjustments to existing MS positions or add new ones.	
28	CNS Night Miscellaneous File	12:30AM on T+2	2:00AM on T+1	MRO Autoroute#02042008 MRO Extended Record ID Net Autoroute#02040343 Print Image Report Autoroute#02040001	
29	CNS Day Miscellaneous File	3:30PM on T+2	3:30PM on T+1	MRO Autoroute#02040331 Print Image Report#02041235 MRO Extended Record ID Net Autoroute#02040331	
30	CNS Accounting Summary	3:30PM on T+2	3:30PM on T+1	MRO Autoroute #02042024 Print Image Autoroute 02040012	
31	CNS Night Settlement Activity	10:30 PM on T+2	2:00 AM on T+1	MRO AR# 02042023 Print Image AR# 02040005	Displays the receives from CNS and the delivers to CNS that occurred during the night cycle
32	CNS Day Settlement Activity	3:30 PM on T+2	3:30 PM on T+1	MRO AR# 02041234	Displays the receives from CNS and

Activity #	Activity Name	Current State Time	Future State Target[47] Time	ITP. DTC and NSCC Technical Names & Job Numbers	Dependencies
				Print Image AR# 02040010	delivers to CNS that occurred during the day cycle
33	CNS Preliminary Cash Reconciliation	12:30 AM on T+2	2:00 AM on T+1	Print Image AR# 02040006	Displays the summary of all CNS money activity that occurred during the night cycle
34	CNS Final Cash Reconciliation	3:30 PM on T+2	3:30 PM on T+1	Print Image AR# 02040011	Displays the end-of-day summary of all CNS money activity
35	CNS Balance Order MRO	8:15PM on T+1	10:30PM on T	MRO Autoroute# 02040996(Print Image Autoroute# 02040002)	
36	CNS Buy -In Activity	12:30AM on T+3	2AM on T+2	Autoroute# 02040890 (Print Image Autoroute# 02040891)	
37	New Real-time MQ Summary & Balance Order Message	N/A	Real Time starting at 7:30AM ET on T+1 until 1:30PM ET on T+1	TBD	
38	CNS Intraday ISO 15022	8:30 ET AM – 11:30 AM ET on T+2	8:30 ET AM – 1:30 PM ET on T+1	Real-time message that informs Members of CNS intra-day position changes resulting from same day settling trades or same day miscellaneous activity updates	

13.8 Documentation

Documentation				
Reference	**Document(s)**	**Internal**	**External**	**T+1 Impact (Yes/No)**
5.1.A	10b-10 Confirmations	X	X	
5.1.B	Balance Restriction Documentation		X	
5.1.C	Client Account Opening Documents		X	
5.1.D	Client Account Statements and Disclosures		X	

Documentation				
Reference	**Document(s)**	**Internal**	**External**	**T+1 Impact (Yes/No)**
5.1.E	Corporate Actions Notifications		X	
5.1.F	Custody and Sub-Custody Documents		X	
5.1.G	Fund Prospectus and Statements		X	
5.1.H	Letter of Transmittal for Voluntary Corporate Actions		X	
5.1.I	Loan Agreements (e.g., Master Securities Loan Agreement, Master Securities Loan Agreement, and ISLA)		X	
5.1.J	Margin Call Notifications		X	
5.1.K	Notices of Execution	X	X	
5.1.L	Product Issuance Documents for Rights and Warrants		X	
5.1.M	Reinvestment Agreements and DRIP Documents		X	
5.1.N	Stock Loan Recall Notices		X	
5.1.O	Trading Relationship Agreements (e.g., ETFs)		X	
5.1.P	CNS ID Net Announcements	X	X	
5.1.Q	Subscription Documentation	X	X	
5.1.R	Transfer Agent Announcements	X	X	
5.1.S	Utility, Vendor, and Service Bureau Product Guides	X	X	
5.1.T	Vendor and Service Bureau Contracts and Service Agreements	X	X	
5.1.U	Standard Settlement Instructions	X	X	
5.1.V	Accounting Policies	X		
5.1.W	Internal Control and Compliance Documentation	X		
5.1.X	Operating Procedure Documentation	X		
5.1.Y	Trading, Liquidity, and Cash Flow Models	X		
5.1.Z	Client Awareness Brochures	X	X	
5.1.AB	Customer and Internal T+2 to T+1 Notices	X	X	

Documentation				
Reference	**Document(s)**	**Internal**	**External**	**T+1 Impact (Yes/No)**
5.1.AC	Internal Training Materials	X		
5.1.AD	Internet and Intranet Information	X	X	
5.1.AE	Qualified Institutional Buyer (QIB) documentation	X	X	
5.1.AF	Customer and internal settlement notices	X	X	
5.1.AG	New accounts	X	X	
5.1.AH	System administrative messages (e.g., CNS ID Net announcements, Transfer Agent announcements)	X	X	
5.1.AI	Client account agreements	X	X	
5.1.AJ	Agreement between PB and EB (typically Form 150)	X	X	
5.1.AK	Securities loan agreements (e.g., NSKA, Master Securities Loan Agreement, and ISLA)	X	X	
5.1.AL	Trading relationship agreements (e.g., ETFs, Employee Stock Ownership Plans)	X	X	
5.1.A.J	Global Master Repurchase Agreements	X	X	

13.9 Implementation Activities Tables

Activities to Configure Trading Systems			
#	**Implementation Steps**	**Organization Participants** **(Front, Middle, Back, IT, Vendor)**	**Supporting Systems**
1	Inventory trading systems, including hardware and software (completeness check)		
2	Determine systems with in-scope products impacted by T+1 implementation		
3	Examine changes required to systems for settlement date configuration (e.g., hardcoding vs. logic in programs)		
4	Assess the impact of required changes to upstream and downstream systems		

Activities to Configure Trading Systems			
#	**Implementation Steps**	**Organization Participants (Front, Middle, Back, IT, Vendor)**	**Supporting Systems**
5	Determine responsibility for trading system changes (proprietary vs. external vendor and service bureau)		
6	Coordinate trading system changes with internal and external stakeholders		
7	Develop trading system test plans		
8	Schedule and execute system changes (consider customer experience and user interface continuity when scheduling trading system changes)		

Activities to Update Reference Data			
#	**Implementation Steps**	**Organization Participants (Front, Middle, Back, IT, Vendor)**	**Supporting Systems**
1	Identify data sources and inventory reference data (completeness check)		
2	Determine reference data impacted by T+1 implementation (coordinate with vendors and service bureaus if necessary)		
3	Assess the impact to downstream systems and data and interconnecting activities for reference data changes		
4	Examine impact of reference data changes on regulatory compliance requirements		
5	Determine responsibility for reference data changes (proprietary vs. external vendor and service bureau)		
6	Coordinate reference data changes with internal and external stakeholders		
7	Develop reference data test plans (consider how to migrate reference data on T+1 migration date while continuing operations on T+2 settlement)		

Activities to Update Reference Data			
#	**Implementation Steps**	**Organization Participants (Front, Middle, Back, IT, Vendor)**	**Supporting Systems**
8	Schedule and execute reference data changes		
9	Review SSI data quality		

Activities to Review Trade Funding Processes and Payment Mechanisms			
#	**Implementation Steps**	**Organization Participants (Front, Middle, Back, IT, Vendor)**	**Supporting Systems**
1	Ensure that systems and reference data related to trade funding, as well as payment mechanisms, are included in inventories for configuration		
2	Examine upstream system, data, and process changes to ensure that they do not interfere with the process for trade funding		
3	Determine changes required to processes related to trade funding including any global trade funding		
4	Assess how changes to payment mechanisms impact policies, procedures, and controls		
5	Develop capacity for mobile deposits or other electronic payment methods and recommend these methods to customers (consider efficiencies to decrease check and Automated Clearing House (ACH) processing time for retail investors)		
6	Coordinate changes to payment mechanisms and processes related to trade funding with internal and external stakeholders		
7	Develop trade funding process and payment mechanism test plans		

Activities to Review Trade Funding Processes and Payment Mechanisms			
#	**Implementation Steps**	**Organization Participants** **(Front, Middle, Back, IT, Vendor)**	**Supporting Systems**
8	Schedule and execute changes to trade funding and payment mechanism processes, policies, procedures, and controls		
9	Communicate changes to trade funding policies and procedures to customers		

Activities to Revise Mutual Fund Settlement Dates			
#	**Implementation Steps**	**Organization Participants** **(Front, Middle, Back, IT, Vendor)**	**Supporting Systems**
1	Inventory mutual funds		
2	Determine whether to revise mutual fund settlement dates		
3	Assess changes required for mutual fund settlement date configuration		
4	Coordinate with DTCC to revise mutual fund settlement dates within Fund/SERV		
5	Develop test plans for settlement of mutual funds		
6	Schedule and execute mutual fund settlement date changes		

Activities to Adjust ETF Create and Redeem Processes			
#	**Implementation Steps**	**Organization Participants** **(Front, Middle, Back, IT, Vendor)**	**Supporting Systems**
1	Review ETF Create and Redeem processes to meet agreed upon cut-off times		
2	Develop test plans for ETF creation and redemption		
3	Schedule and execute ETF settlement date changes		

Activities to Review Trade Order Management and Trade Capture Processes			
#	**Implementation Steps**	**Organization Participants (Front, Middle, Back, IT, Vendor)**	**Supporting Systems**
1	Ensure that systems and reference data related to trade order management and trade capture are included in inventories for configuration (i.e., Trade Order Management Solution (TOMS), UTC)		
2	Determine changes required to processes related to trade order management and trade capture		
3	Coordinate changes to processes related to trade order management and trade capture with internal and external stakeholders (e.g., FIX, SWIFT)		
4	Develop test plans for trade order management and trade capture		
5	Schedule and execute process changes for trade order management and trade capture		

Activities to Standardize Communication Protocols for Trade Away Processes			
#	**Implementation Steps**	**Organization Participants (Front, Middle, Back, IT, Vendor)**	**Supporting Systems**
1	Ensure that systems and reference data related to trade away processes are included in inventories for configuration (i.e., Trade Order Management Solution (TOMS), UTC)		
2	Determine changes required for trade away processes and relevant communication protocols		
3	Coordinate changes to processes related to trade away communication protocols with internal and external stakeholders (e.g., FIX)		

Activities to Standardize Communication Protocols for Trade Away Processes			
#	**Implementation Steps**	**Organization Participants (Front, Middle, Back, IT, Vendor)**	**Supporting Systems**
4	Develop test plans for standardize communication protocols for trade away processes		
5	Schedule and execute process changes for standardization of communication protocols for trade away processes		

Activities to Update Trade Matching Processes			
#	**Implementation Steps**	**Organization Participants (Front, Middle, Back, IT, Vendor)**	**Supporting Systems**
1	Ensure that systems and reference data related to trade matching are included in inventories for configuration		
2	Examine upstream system, data, and process changes to ensure that they do not interfere with the process for trade matching		
3	Determine changes required to processes related to trade matching		
4	Coordinate changes to processes related to trade matching with internal and external stakeholders		
5	Develop test plans for trade matching		
6	Schedule and execute process changes for trade matching		

Activities to Align Industry-Recommended Allocation Timelines			
#	Implementation Steps	Organization Participants (Front, Middle, Back, IT, Vendor)	Supporting Systems
1	Ensure that systems and reference data related to trade allocations are included in inventories for configuration		
2	Examine upstream system, data, and process changes to ensure that they do not interfere with the process for trade allocations		
3	Determine changes required to processes related to trade allocations		
4	Coordinate changes to processes related to trade allocations with internal and external stakeholders		
5	Develop test plans for trade allocations		
6	Schedule and execute process changes for trade allocation timelines		

Activities to Configure Purchase and Sales Systems for Near-Time Matching			
#	Implementation Steps	Organization Participants (Front, Middle, Back, IT, Vendor)	Supporting Systems
1	Ensure that systems and reference data related to Purchase and Sales systems for near-time are included in inventories for configuration		
2	Examine upstream system, data, and process changes to ensure that they do not interfere with Purchase and Sales systems for trade matching		
3	Determine changes required to configure Purchase and Sales system processes for near-time trade matching		

Activities to Configure Purchase and Sales Systems for Near-Time Matching			
#	**Implementation Steps**	**Organization Participants (Front, Middle, Back, IT, Vendor)**	**Supporting Systems**
4	Coordinate changes to processes related to near-time trade matching with internal and external stakeholders		
5	Develop test plans for configuration of Purchase and Sales systems for near-time matching		
6	Schedule and execute process changes for Purchase and Sales systems for near-time matching		

Activities to Review Trade Affirmation Processes			
#	**Implementation Steps**	**Organization Participants (Front, Middle, Back, IT, Vendor)**	**Supporting Systems**
1	Ensure that systems and reference data related to trade affirmation are included in inventories for configuration		
2	Examine upstream system, data, and process changes to ensure that they do not interfere with the process for trade affirmation		
3	Determine changes required to processes related to trade affirmation and new cutoff time		
4	Coordinate changes to processes related to trade affirmation with internal and external stakeholders		
5	Develop test plans for affirmed and unaffirmed eligible institutional trade submission, prime broker transactions, and ID Net transactions		
6	Schedule and execute process changes for affirmed trade submission		

Activities to Review Trade Affirmation Processes			
#	Implementation Steps	Organization Participants (Front, Middle, Back, IT, Vendor)	Supporting Systems
7	Utilize services (e.g., ITPs M2i) to achieve maximum affirmations		

Activities for Changes to the Timing of NSCCs CNS Projection Reports			
#	Implementation Steps	Organization Participants (Front, Middle, Back, IT, Vendor)	Supporting Systems
1	Inventory projection reports, including created projection reports and those received and used from other organizations (i.e., cash projection reports, CNS Projection Report)		
2	Assess projection reports for changes from T+1 settlement		
3	Determine if settlement date changes to projection reports will be automatically captured or need to be manually updated		
4	Coordinate changes to projection reports with internal and external stakeholders		
5	Develop test plans for activities related to projection reports		
6	Schedule and execute changes for projection reports		

Activities to Align Industry-Recommended Affirmation Timelines			
#	Implementation Steps	Organization Participants (Front, Middle, Back, IT, Vendor)	Supporting Systems
1	Ensure that systems and reference data related to trade affirmations are included in inventories for configuration		

Activities to Align Industry-Recommended Affirmation Timelines			
#	**Implementation Steps**	**Organization Participants (Front, Middle, Back, IT, Vendor)**	**Supporting Systems**
2	Examine upstream system, data, and process changes to ensure that they do not interfere with the process for trade affirmations		
3	Determine changes required to processes related to trade affirmations		
4	Coordinate changes to processes related to trade affirmations with internal and external Stakeholders		
5	Develop test plans for trade allocations, confirmations, and affirmations		
6	Schedule and execute process changes for trade affirmation timelines		

Activities to Standardize Communication Protocols Among Affirming Parties			
#	**Implementation Steps**	**Organization Participants (Front, Middle, Back, IT, Vendor)**	**Supporting Systems**
1	Ensure that systems and reference data related to communication protocols among affirming parties are included in inventories for configuration (i.e., Trade Order Management Solution (TOMS), UTC)		
2	Determine changes required for affirming parties and relevant communication protocols		
3	Coordinate changes to processes related to affirming parties' communication protocols with internal and external stakeholders (e.g., FIX)		
4	Develop test plans for standardized communication protocols among affirming parties		

Activities to Standardize Communication Protocols Among Affirming Parties			
#	**Implementation Steps**	**Organization Participants (Front, Middle, Back, IT, Vendor)**	**Supporting Systems**
5	Schedule and execute process changes for standardization of communication protocols among affirming parties		

Activities to Decommission Physical Securities			
#	**Implementation Steps**	**Organization Participants (Front, Middle, Back, IT, Vendor)**	**Supporting Systems**
1	Inventory platforms supporting physical securities delivery		
2	Determine platforms supporting physical securities delivery impacted by T+1 implementation		
3	Assess changes required to decommission platforms supporting physical securities delivery for T+1 settlement		
4	Determine responsibility for platform changes (proprietary vs. external vendor and service bureau)		
5	Coordinate platform changes with internal and external stakeholders		
6	Develop test plans for decommissioning physical securities delivery		
7	Schedule and execute changes to decommission physical securities		

Activities to Adjust Processes and Systems Related to Physical Securities			
#	**Implementation Steps**	**Organization Participants (Front, Middle, Back, IT, Vendor)**	**Supporting Systems**
1	Inventory platforms supporting physical securities delivery		

Activities to Adjust Processes and Systems Related to Physical Securities			
#	Implementation Steps	Organization Participants (Front, Middle, Back, IT, Vendor)	Supporting Systems
2	Determine platforms supporting physical securities delivery impacted by T+1 implementation		
3	Assess changes required to platforms supporting physical securities delivery for T+1 settlement		
4	Determine responsibility for platform changes (proprietary vs. external vendor and service bureau, issuers)		
5	Coordinate platform changes with internal and external stakeholders		
6	Develop test plans for physical securities delivery for T+1 settlement		
7	Schedule and execute changes to physical securities for T+1		

Activities to Configure Ex-Date Changes			
#	Implementation Steps	Organization Participants (Front, Middle, Back, IT, Vendor)	Supporting Systems
1	Identify and inventory instances where ex-dates are generated or received		
2	Conduct conversations with vendors and service bureaus to ensure that ex-dates are captured, tested, and approved		
3	Assess changes required to systems for capturing ex-dates		
4	Review processes for corporate action events to determine impact of ex-date changes		
5	Examine impact of ex-date changes to compliance and oversight requirements		

Activities to Configure Ex-Date Changes			
#	**Implementation Steps**	**Organization Participants (Front, Middle, Back, IT, Vendor)**	**Supporting Systems**
6	Ensure materials regarding T+1 ex-date implications are included in customer communication plans		
7	Develop ex-date and corporate action event test plans		
8	Schedule and execute ex-date changes		

Activities to Adjust Ex-Date Notification Announcement Systems			
#	**Implementation Steps**	**Organization Participants (Front, Middle, Back, IT, Vendor)**	**Supporting Systems**
1	Identify announcement systems used for ex-date notifications		
2	Determine impact to ex-date notifications and announcement systems for T+1 settlement		
3	Coordinate ex-date notification and announcement system changes with internal and external stakeholders		
4	Develop ex-date notification and announcement system test plans		
5	Schedule and execute announcement system changes		
6	Communicate changes to ex-date notifications and announcement system changes to external organizations		

Activities to Modify Internal Processing Systems that Calculate Ex-Dates			
#	**Implementation Steps**	**Organization Participants (Front, Middle, Back, IT, Vendor)**	**Supporting Systems**
1	Ensure that systems and reference data related to ex-date calculations are included in inventories for configuration		

Activities to Modify Internal Processing Systems that Calculate Ex-Dates			
#	**Implementation Steps**	**Organization Participants (Front, Middle, Back, IT, Vendor)**	**Supporting Systems**
2	Evaluate the impact on downstream processes (internal and external) for system and ex-date calculation changes		
3	Determine responsibility for ex-date calculation changes (proprietary vs. external vendor and service bureau)		
4	Coordinate changes with internal and external stakeholders		
5	Develop internally calculated ex-date test plans (consider how to make changes on T+1 migration date while continuing T+2 settlement operations)		
6	Schedule and execute changes related to internal ex-date calculations		

Activities to Adjust Due Bill Processing			
#	**Implementation Steps**	**Organization Participants (Front, Middle, Back, IT, Vendor)**	**Supporting Systems**
1	Ensure that systems and reference data related to due bill processing are included in inventories for configuration		
2	Determine changes required for due bill processing		
3	Coordinate due bill processing changes with internal and external stakeholders		
4	Develop test plan for due bill processing		
5	Schedule and implement due bill processing changes		

Activities to Modify Interim Accounting Processes			
#	**Implementation Steps**	**Organization Participants (Front, Middle, Back, IT, Vendor)**	**Supporting Systems**
1	Ensure that systems and reference data related to interim accounting are included in inventories for configuration		
2	Evaluate the impact on downstream processes (internal and external) for interim accounting process changes		
3	Determine responsibility for interim accounting process changes (proprietary vs. external vendor and service bureau)		
4	Coordinate interim accounting process changes with internal and external stakeholders		
5	Develop interim accounting testing plans		
6	Schedule and execute changes related to interim accounting		

Activities to Review Reorganization Announcement Platforms			
#	**Implementation Steps**	**Organization Participants (Front, Middle, Back, IT, Vendor)**	**Supporting Systems**
1	Ensure that reorganization announcement platforms and reference data are included inventories for configuration		
2	Evaluate the impact to downstream systems and processes (internal and external) for reorganization announcement platform changes		
3	Determine responsibility for reorganization announcement platform changes (proprietary vs. external vendor and service bureau)		
4	Coordinate reorganization announcement platform changes with internal and external stakeholders		

Activities to Review Reorganization Announcement Platforms			
#	**Implementation Steps**	**Organization Participants (Front, Middle, Back, IT, Vendor)**	**Supporting Systems**
5	Develop test plans for reorganization announcement platforms		
6	Schedule and execute changes related to reorganization announcement platforms		

Activities to Modify Voluntary Reorganization Processing Applications			
#	**Implementation Steps**	**Organization Participants (Front, Middle, Back, IT, Vendor)**	**Supporting Systems**
1	Ensure that systems and reference data related to voluntary reorganization processing are included in inventories for configuration		
2	Evaluate the impact to downstream processes (internal and external) for voluntary reorganization processing changes		
3	Determine responsibility for voluntary reorganization process changes (proprietary vs. external vendor and service bureau)		
4	Coordinate voluntary reorganization processing changes with internal and external stakeholders		
5	Develop test plans for voluntary reorganization processing applications and voluntary reorganization event processing		
6	Schedule and execute changes related to voluntary reorganization processing		

Activities to Update Internal Processing Systems that Consume Cover/Protect Dates			
#	**Implementation Steps**	**Organization Participants (Front, Middle, Back, IT, Vendor)**	**Supporting Systems**
1	Ensure that systems and reference data related to cover/protect date calculations are included in inventories for configuration		
2	Evaluate the impact on downstream processes (internal and external) for system and process changes related to cover/protect date calculations		
3	Determine responsibility for cover/protect date calculation changes (proprietary vs. external vendor and service bureau)		
4	Coordinate changes with internal and external stakeholders		
5	Develop internally calculated cover/protect date test plan		
6	Schedule and execute changes related to internal cover/protect date calculations		

Activities to Adjust Stock Record Platforms as Necessary			
#	**Implementation Steps**	**Organization Participants (Front, Middle, Back, IT, Vendor)**	**Supporting Systems**
1	Ensure that systems and reference data related to stock record platforms are included in inventories for configuration		
2	Evaluate the impact on downstream processes (internal and external) for system and process changes related to modification of stock record platforms		
3	Determine responsibility for stock record changes (proprietary vs. external vendor and service bureau)		
4	Coordinate stock record changes with internal and external stakeholders		

Activities to Adjust Stock Record Platforms as Necessary			
#	**Implementation Steps**	**Organization Participants (Front, Middle, Back, IT, Vendor)**	**Supporting Systems**
5	Develop internally calculated stock record test plan		
6	Schedule and execute changes related to modification of stock record platforms		

Activities to Assess Dividend Reinvestment Plans			
#	**Implementation Steps**	**Organization Participants (Front, Middle, Back, IT, Vendor)**	**Supporting Systems**
1	Determine required changes for DRIPs due to T+1 settlement		
2	Determine required changes to issuance of DRIP shares (if open market purchases)		
3	Determine required changes to DRIP communications resulting in shortened settlement cycle		
4	Develop test plans for DRIP changes for T+1 settlement		
5	Schedule and execute changes prior to T+1 settlement		
6	Advise plan participants of changes to DRIP functionality		

Activities to Update External Client-Facing Documentation			
#	**Implementation Steps**	**Organization Participants (Front, Middle, Back, IT, Vendor)**	**Supporting Systems**
1	Inventory external client-facing documentation that references T+2 settlement, including electronic documents and website information		
2	Inventory static data resources used for auto-populating documentation that reference T+2 settlement		

Activities to Update External Client-Facing Documentation			
#	**Implementation Steps**	**Organization Participants (Front, Middle, Back, IT, Vendor)**	**Supporting Systems**
3	Determine which identified documents need to be updated		
4	Create master list of required documentation changes		
5	Coordinate documentation changes with internal and external stakeholders		
6	Schedule and execute identified changes to documentation		
7	Cross-reference updates with master list of required documentation changes to ensure accuracy and completeness		

Activities to Update External Service Agreement Documentation			
#	**Implementation Steps**	**Organization Participants (Front, Middle, Back, IT, Vendor)**	**Supporting Systems**
1	Inventory vendor and service bureau documentation that references a two-day settlement period, including agreements, service descriptions, product guides, and fee schedules		
2	Update external vendor and service bureau documentation for a one-day settlement		
3	Review, approve, re-negotiate, and re-authorize changes to documentation as necessary		
4	Test the execution of updated documentation in the delivery and pricing of services		

Activities to Determine Impact of E-Delivery for Client Groups			
#	Implementation Steps	Organization Participants (Front, Middle, Back, IT, Vendor)	Supporting Systems
1	Inventory vendor and service bureau documentation that is required to be delivered to clients, including agreements, service descriptions, product guides, and fee schedules		
2	Determine e-delivery procedures and documentation that reference T+1 settlement		
3	Assess changes required to e-delivery procedures and documentation		
4	Coordinate changes with internal and external stakeholders		
5	Coordinate changes with client groups		
6	Schedule and execute required changes to identified e-delivery procedures and documentation		
7	Test the execution of updated e-delivery for client groups		

Activities to Adjust Operating Procedures and Internal Control Documentation			
#	Implementation Steps	Organization Participants (Front, Middle, Back, IT, Vendor)	Supporting Systems
1	Identify and inventory sources for operating procedures and control documentation		
2	Determine operating procedures and control documentation that reference T+2 settlement		
3	Assess changes required to operating procedures and control documentation		
4	Coordinate changes with internal and external stakeholders		

Activities to Adjust Operating Procedures and Internal Control Documentation			
#	**Implementation Steps**	**Organization Participants (Front, Middle, Back, IT, Vendor)**	**Supporting Systems**
5	Schedule and execute required changes to identified operating procedures and control documentation		
6	Document and track changes to documentation to ensure completeness		

Activities to Educate Customers and Staff on T+1 Settlement			
#	**Implementation Steps**	**Organization Participants (Front, Middle, Back, IT, Vendor)**	**Supporting Systems**
1	Identify customers and staff who require education related to T+1 implementation		
2	Determine if education materials need to be updated or if new education materials need to be created		
3	Assess changes to staff training materials		
4	Assess changes to customer educational materials		
5	Develop a training plan to ensure staff are adequately trained prior to T+1 conversion		
6	Develop a communications plan to address customer needs		
7	Create or update materials for staff and customer education		
8	Train staff for T+1 implementation		
9	Distribute T+1 settlement education material to customers		

Activities for Determining Impact on Securities Lending Processes and Procedures			
#	**Implementation Steps**	**Organization Participants (Front, Middle, Back, IT, Vendor)**	**Supporting Systems**
1	Inventory securities lending processes and procedures documentation (completeness check)		
2	Ensure that systems and reference data related to securities lending are included in inventories for configuration		
3	Assess the impact of required changes to upstream and downstream systems		
4	Determine responsibility for securities lending changes (proprietary vs. external vendor and service bureau)		
5	Coordinate changes with internal and external stakeholders		
6	Develop exercise and assignment test plans		
7	Schedule and execute system, process, and documentation changes		
8	Review effective controls to prevent issues (e.g., inadvertent data disclosure, client confidential breach)		

Activities to Align to Updated Stock Loan Recall Timing Changes			
#	**Implementation Steps**	**Organization Participants (Front, Middle, Back, IT, Vendor)**	**Supporting Systems**
1	Determine required changes to stock loan recall processes for migration to T+1 settlement		
2	Determine responsibility for stock loan recall timing changes		
3	Coordinate changes with internal and external stakeholders		
4	Develop stock loan recall timing changes test plan		

Activities to Align to Updated Stock Loan Recall Timing Changes			
#	**Implementation Steps**	**Organization Participants (Front, Middle, Back, IT, Vendor)**	**Supporting Systems**
5	Schedule and execute changes prior to migration to T+1 settlement		

Activities to Update Margin Calculation Processes			
#	**Implementation Steps**	**Organization Participants (Front, Middle, Back, IT, Vendor)**	**Supporting Systems**
1	Ensure that systems and reference data related to margin calculations are included in inventories for configuration		
2	Evaluate the impact on downstream processes (internal and external) for system and process changes related to margin calculations		
3	Determine responsibility for margin calculation changes		
4	Coordinate changes with internal and external stakeholders		
5	Develop margin calculation test plan		
6	Schedule and execute changes related to margin calculations		

Activities to Update Master Securities Loan Agreement			
#	**Implementation Steps**	**Organization Participants (Front, Middle, Back, IT, Vendor)**	**Supporting Systems**
1	Inventory Master Securities Loan Agreements that reference T+2 settlement		
2	Assess changes required to MSLAs		
3	Coordinate changes to MSLAs with internal and external stakeholders		

Activities to Update Master Securities Loan Agreement			
#	Implementation Steps	Organization Participants (Front, Middle, Back, IT, Vendor)	Supporting Systems
4	Schedule and execute identified changes to MSLAs		
5	Document and track changes to MSLAs to ensure completeness		

Activities for Assessing Regulatory Considerations related to Securities Lending			
#	Implementation Steps	Organization Participants (Front, Middle, Back, IT, Vendor)	Supporting Systems
1	Assess rule changes for securities lending		
2	Ensure that systems and reference data impacted by rule changes are included in inventories for configuration		
3	Determine process changes required to maintain compliant with rule changes		
4	Coordinate changes with both internal and external parties		
5	Develop rule change test plans		
6	Schedule and execute changes for system changes		
7	Update operational policies and procedures as applicable for each rule change		
8	Update compliance policies and procedures as applicable for each rule change		
9	Update regulatory policies and procedures as applicable for each rule change		

Activities to Review Prime Broker Disaffirmation Timelines			
#	Implementation Steps	Organization Participants (Front, Middle, Back, IT, Vendor)	Supporting Systems
1	Ensure that systems and reference data related to prime broker disaffirmation		

Activities to Review Prime Broker Disaffirmation Timelines			
#	Implementation Steps	Organization Participants (Front, Middle, Back, IT, Vendor)	Supporting Systems
	are included in inventories for configuration		
2	Examine upstream system, data, and process changes to ensure that they do not interfere with the process for prime broker disaffirmation		
3	Determine changes required to processes related to prime broker disaffirmation		
4	Coordinate changes to processes related to prime broker disaffirmation with internal and external stakeholders		
5	Schedule and execute process changes for prime broker disaffirmation		

Activities to Review Prime Broker Affirmation Timelines			
#	Implementation Steps	Organization Participants (Front, Middle, Back, IT, Vendor)	Supporting Systems
1	Ensure that systems and reference data related to prime broker affirmation are included in inventories for configuration		
2	Examine upstream system, data, and process changes to ensure that they do not interfere with the process for prime broker affirmation		
3	Determine changes required to processes related to prime broker affirmation		
4	Coordinate changes to processes related to prime broker affirmation with internal and external stakeholders		
5	Schedule and execute process changes for prime broker affirmation		

Activities to Assess Liquidity and Collateral Management			
#	Implementation Steps	Organization Participants (Front, Middle, Back, IT, Vendor)	Supporting Systems
1	Determine if strategies, policies, or practices to manage liquidity risk need to change based on the shortened settlement cycle		
2	Determine impacts to projection of cash flows		
3	Determine if T+1 settlement will impact the collateral management process		
4	Determine if changes to collateral management systems are required due to shortened settlement cycle		

Activities to Assess Forex Considerations and Funding			
#	Implementation Steps	Organization Participants (Front, Middle, Back, IT, Vendor)	Supporting Systems
1	Identify changes to market synchronization for T+1 settlement cycle		
2	Assess impact of market synchronization changes to foreign exchange and funding		
3	Determine changes required due to T+1 implementation		
4	Coordinate identified changes with internal and external stakeholders		
5	Schedule and execute identified changes		

Activities to Assess Intraday & End of Day DTCC Settlement Processing			
#	Implementation Steps	Organization Participants (Front, Middle, Back, IT, Vendor)	Supporting Systems
1	Ensure that systems and reference data related to intraday & end of day DTCC settlement processing are included in inventories for configuration		
2	Examine upstream system, data, and process changes to ensure that they do not interfere		

Activities to Assess Intraday & End of Day DTCC Settlement Processing			
#	**Implementation Steps**	**Organization Participants (Front, Middle, Back, IT, Vendor)**	**Supporting Systems**
	with intraday & end of day DTCC settlement processing		
3	Determine process changes required for intraday & end of day DTCC settlement		
4	Coordinate changes to processes related to intraday & end of day DTCC settlement with internal and external stakeholders		
5	Develop test plans for intraday & end of day DTCC settlement processing		
6	Schedule and execute process changes for intraday & end of day DTCC settlement		

Activities to Review Processes for Global Considerations			
#	**Implementation Steps**	**Organization Participants (Front, Middle, Back, IT, Vendor)**	**Supporting Systems**
1	Identify changes to market synchronization for T+1 settlement cycle		
2	Assess impact of market synchronization changes to foreign exchange, foreign investment, and cross-border transaction processing, procedures, and policy documentation		
3	Review issuance and cancellation procedures around ADR processing		
4	Determine changes required due to T+1 implementation		
5	Coordinate identified changes with internal and external stakeholders		
6	Schedule and execute identified changes		

Activities to Assess Options Exercise and Assignment Processes			
#	**Implementation Steps**	**Organization Participants (Front, Middle, Back, IT, Vendor)**	**Supporting Systems**
1	Inventory exercise and assignment processes and documentation (completeness check)		
2	Ensure that systems and reference data related to options exercise and assignment are included in inventories for configuration		
3	Assess the impact of required changes to upstream and downstream systems		
4	Determine responsibility for exercise and assignment changes (proprietary vs. external vendor and service bureau)		
5	Coordinate changes with internal and external stakeholders		
6	Develop exercise and assignment test plans		
7	Schedule and execute system, process, and documentation changes		

Activities to Assess Primary Offerings			
#	**Implementation Steps**	**Organization Participants (Front, Middle, Back, IT, Vendor)**	**Supporting Systems**
1	Determine required changes for primary offerings required for migration to T+1		
2	Accelerate documentation procedures required to close primary offerings		
3	Coordinate changes with internal and external stakeholders		
4	Develop test plans to check the robustness of the system in handling operational issues		
5	Schedule and execute new systems for primary offerings to cater to the new compressed timeframe of T+1		

Activities to Assess Reconciliation Processes for Errors/Fails			
#	**Implementation Steps**	**Organization Participants (Front, Middle, Back, IT, Vendor)**	**Supporting Systems**
1	Determine the redundant manual touchpoints and illiquid securities in the current system		
2	Automate the processes and streamline communication channels		
3	Ensure seamless flow of trade instruction from one counterparty to another		
4	Coordinate changes amongst all stakeholders		
5	Test the new systems in place		
6	Schedule and execute system changes		

Activities to Assess Buy-Side Considerations			
#	**Implementation Steps**	**Organization Participants (Front, Middle, Back, IT, Vendor)**	**Supporting Systems**
1	Revisit the internal processes, begin impact analysis, and look for investment opportunities that can accelerate change		
2	Identify processes that can be automated and controls that need to be updated		
3	Update systems to incorporate new recordkeeping changes related to trade allocation, affirmation, and confirmation		
4	Schedule and execute system, process, and documentation changes		
5	Test the processes and assess to solve outstanding issues		

Activities to Draft Test Plan			
#	**Implementation Steps**	**Organization Participants (Front, Middle, Back, IT, Vendor)**	**Supporting Systems**
1	Draft test plan		
2	Confirm readiness with vendors and service bureaus to determine static data and software field updates for internal systems		
3	Develop internal testing scenarios and data		
4	Conduct internal testing and evaluate results		
5	Coordinate external testing with internal and external stakeholders		
6	Conduct external testing and evaluate results		
7	Develop the organization's plan to participate in industry testing		
8	Participate (if applicable) in DTCC testing prior to industry test		
9	Conduct post-migration testing activities		

13.10 Dimensions Tables

The dimensions detailed below should be considered for trade processing:

Dimension	Impacted?	Description
Business Model	Potential Impact	Changes in the trade processing lifecycle are not expected to have a large impact on organization's business models. There may exist staffing work considerations. Tooling to automate these processes may require different skill set requirements for teams.
Product Type	Potential Impact	In-scope products should be evaluated, and trading processes and systems should be configured for T+1 settlement to account for various product types correctly (e.g., fixed income vs. equities).
Vendor & Service Bureau Support	Potential Impact	Vendors and service bureaus should configure trading systems for T+1 settlement in order to avoid risk (e.g., financial, reputational) to their customer organizations.

Dimension	Impacted?	Description
Trading Venue	None	Trading venues are not likely to be changed or largely impacted by trade processing with a T+1 settlement.
Risk & Compliance	Potential Impact	Organizations that do not properly transform trade processes and relevant systems for the new settlement period may compromise the ability to execute and settle trades in accordance with regulatory guidance.
Customer Experience	Potential Impact	Incorrectly configured trade processes and systems may cause upstream and downstream implications for internal functions (e.g., reconciliation, income processing) and impact external clients (e.g., client statements, trade confirmations). Issues may also result in failed trades for external customers. Organizations should consider the customer experience and user interface continuity when scheduling trading system changes.
Technology Enablers	Potential Impact	Organizations' trading systems should prepare for settlement date configuration errors that may arise and impact upstream and downstream functions that rely on information from the trading systems.

The dimensions detailed below should be considered for asset servicing:

Dimension	Impacted?	Description
Business Model	None	Changes related to asset servicing functions are not expected to have a large impact on organizations' business models.
Product Type	Potential Impact	Impacted products could experience income payment errors and operational issues if T+1 ruled ex-dates are not updated for T+1. This requires organizations to evaluate and enhance current-state announcements with ex-dates, notification announcement processes for all corporate actions and due bill processing. In addition, businesses should determine the impact a shortened cover/protect period has on their processes.
Vendor & Service Bureau Support	Potential Impact	In order to minimize risk to their customer organizations, vendors and service bureaus should properly update processes and systems related to ex-dates and cover/protect dates on their event announcements. This includes reviewing and enhancing if necessary, data sources, notification announcements, due bill processing, interim accounting processes, liabilities related to reorganization events and stock record balances.

Dimension	Impacted?	Description
Trading Venue	Potential Impact	Trading venues that do not properly update their rule set to establish the ex-date for listed securities could cause risk (e.g., security pricing, entitlements, out of balances, etc.) to participating organizations.
Risk & Compliance	Potential Impact	Risk (e.g., financial, reputational) and compliance issues related to corporate actions (e.g., dividends, stock splits) may occur if ex-date entitlements, notifications, and data are not updated to reflect the shortened settlement cycle. The DTC interim account processes should be updated in order to prevent any issues related to due bill processing. In regard to cover/protect period following an event expiration, organizations should review and modify reorganization announcements, inclusive of voluntary reorganization instruction applications, internal processing systems responsible for passing liabilities from one party to another, and the stock record platform to account for positions in different "boxes."
Customer Experience	Potential Impact	Incorrect ex-dates or interim accounting data may cause upstream and downstream implications for internal functions (e.g., reconciliation, income processing) and impact external clients (e.g., client statements, processing errors). Organizations face financial and reputational risk with incorrect ex-dates causing erroneous pricing and the incorrect party receiving the distribution proceeds. The passing of liabilities related to voluntary reorganization event expirations including cover/protect date processing should be updated for internal functions in order to avoid impacting clients (e.g., missing elections to participate in voluntary corporate action events, financial loss, etc.).
Technology Enablers	Potential Impact	Organizations should evaluate and, if necessary, enhance technology platforms that support corporate action announcements, pricing, and stock records (i.e., passing of liabilities).

The dimensions detailed below should be considered for documentation:

Dimension	Impacted?	Description
Business Model	None	Changes in the documentation are not expected to have a large impact on organization's business models.
Product Type	Potential Impact	Impacted products and related services could be misrepresented to clients if documents that reference in-scope products are not updated for T+1.

Dimension	Impacted?	Description
Vendor & Service Bureau Support	Potential Impact	Vendors and service bureaus that do not properly update documentation provided to their customer organizations or those organization's clients could cause risk (e.g., financial, reputational, and regulatory) to those organizations.
Trading Venue	Potential Impact	References to the T+2 settlement cycle in the operating procedures and internal control documentation will not align to updated rules of trading venues.
Risk & Compliance	Potential Impact	Risk (e.g., financial, reputational) and compliance issues related may occur if documentation is not updated to reflect the shortened settlement cycle.
Customer Experience	Potential impact	Incorrect documentation may cause reputational damage to an organization and impact clients by potential misinformation. Potential fines and financial liabilities could result from client losses on actions that were based on misinformation from inaccurate documentation. In addition, it is important to have controls in place for documentation procedures. E-delivery can help with risk management.
Technology Enablers	Potential Impact	Issues may occur across an organization's technology platforms if reference data and systems that populate documentation are not comprehensively updated for T+1.

The dimensions detailed below should be considered for securities lending:

Dimension	Impacted?	Description
Business Model	Potential Impact	Changes in the securities lending processes are not expected to have a large impact on an organizations' business models but should be evaluated.
Product Type	Potential Impact	In-scope products should be evaluated, and processes and systems should be configured for T+1 settlement to account for various product types (e.g., fixed income vs. equities) correctly.
Vendor & Service Bureau Support	Potential Impact	Vendors and service bureaus that do not properly update securities lending processes and procedures provided to their customer organizations could cause risk (e.g., operational, financial, and reputational) to those organizations. Vendors and service bureaus should configure systems for T+1 settlement in order to avoid risk (e.g., financial, reputational, settlement).
Trading Venue	None	Trading venues are not likely to be changed or largely impacted by securities lending with a T+1 settlement.
Risk & Compliance	Potential Impact	Risk (e.g., operational, financial, reputational) and compliance issues (e.g., licensing exams) may occur if securities lending processes are not updated related to the T+1 settlement cycle.

Dimension	Impacted?	Description
Customer Experience	None	The IWG determined minimal risk with a move to T+1. Organizations should perform a risk assessment.
Technology Enablers	Potential Impact	Issues may occur across an organization's technology platforms if securities lending processes (processes and timing related to stock loan, margin calculation) and procedures are outdated.

The dimensions detailed below should be considered for prime brokerage:

Dimension	Impacted?	Description
Business Model	None	Changes in the prime brokerage are not expected to have an impact on organizations' business models.
Product Type	None	In-scope products should be evaluated to identify potential impacts as applicable, and processes and systems should be configured for T+1 settlement to account for various product types (e.g., fixed income vs. equities) correctly.
Vendor & Service Bureau Support	Potential Impact	Vendors and service bureaus that do not update prime brokerage processes and procedures to align with anticipated, updated regulatory guidance could pose risk to the broker-dealer. Vendors and service bureaus should configure systems and operational procedures to align to regulatory- and industry-imposed operational deadlines and requirements.
Trading Venue	None	Trading venues are not likely to be changed or largely impacted related to the operational changes proposed.
Risk & Compliance	Potential Impact	Organizations should evaluate how operational changes related in response to updated regulatory guidance implicates their overall risk/compliance oversight programs.
Customer Experience	Potential Impact	Requirements by customers or EBs to adhere to modified service-level agreements (SLAs) or updated procedures related to onboarding agreements in order to meet modified regulatory and/or industry-imposed deadlines may be implicated. Organizations should evaluate how these changes may impact the customer experience.
Technology Enablers	Potential Impact	Operational and technical issues may arise if technology platforms and related processes are not updated to meet regulatory- or industry-imposed deadlines (e.g., resolution of trade mismatches, delivery to CNS within specific timelines, reduction in straight-through processing).

The dimensions detailed below should be considered for funding and liquidity considerations:

Dimension	Impacted?	Description
Business Model	None	The IWG determined no or minimal risk. Organizations should perform a risk assessment.
Product Type	None	The IWG determined no or minimal risk. Organizations should perform a risk assessment.
Vendor & Service Bureau Support	Potential Impact	Vendors and service bureaus that do not properly update funding, liquidity and collateral management processes and procedures provided to their customer organizations could cause risk (e.g., operational, financial, and reputational) to those organizations. Vendors and service bureaus should configure systems for funding and collateral management in order to avoid risk (e.g., financial, reputational, settlement).
Trading Venue	None	Trading venues are not likely to be changed or largely impacted by funding and collateral management process with a T+1 settlement.
Risk & Compliance	Potential Impact	Risk (e.g., operational, financial, reputational, settlement) and compliance issues (e.g., licensing exams) may occur if operational processes are not updated related to the T+1 settlement cycle.
Customer Experience	Potential Impact	Liquidity and collateral management issues (e.g., insufficient collateral, securities lending errors, and missed obligations) may impact external clients and cause risk (e.g., financial, reputational).
Technology Enablers	Potential Impact	Issues may occur across an organization's technology platforms if systems and data related to liquidity and collateral management are not comprehensively updated.

The dimensions detailed below should be considered for global considerations:

Dimension	Impacted?	Summary of Risk
Business Model	Potential Impact	Due to the shortened settlement cycle, coordinated efforts need to be taken wholesale FX market participants to introduce T+1 settlement without disruption, particularly for non-U.S. based investors given time zone differences.
Product Type	Potential Impact	Global considerations could experience operational and settlement issues if trade discrepancies are discovered on T+1 and global parties are unable to pre-fund the trade.
Vendor & Service Bureau Support	Potential Impact	Vendors and service bureaus that do not properly update processes for global market participants and data provided to

Dimension	Impacted?	Summary of Risk
		their customer organizations could cause risk (e.g., financial, reputational) to those organizations.
Trading Venue	Potential Impact	Inability to pre-fund the trade by foreign investors may deter them to trade in U.S. financial markets.
Risk & Compliance	Potential Impact	Risk (e.g., operational, financial, and reputational) and compliance issues may occur if processes related to global considerations are not properly configured for T+1.
Customer Experience	Potential Impact	Incorrectly updated global market processes may cause upstream and downstream implications for internal functions (e.g., reconciliation, deliveries) and impact external clients (e.g., failed trades).
Technology Enablers	Potential Impact	Issues may occur across an organization's technology platforms if systems and data related to global markets are not comprehensively updated.

The dimensions detailed below should be considered for options exercise and assignment process assessment

Dimension	Impacted?	Summary of Risk
Business Model	None	The IWG determined no or minimal risk. Organizations should perform a risk assessment.
Product Type	Potential Impact	Underlying securities could experience operational and settlement issues if settlement dates are not adjusted for T+1.
Vendor & Service Bureau Support	Potential Impact	Vendors and service bureaus that do not properly update options exercise and assignment operations and data provided to their customer organizations could cause risk (e.g., financial, reputational) to those organizations.
Trading Venue	Potential Impact	Options exercise and assignment processes not properly updated for T+1 settlement could cause out of balances with the Options Clearing Corporation (OCC).
Risk & Compliance	Potential Impact	Risk (e.g., operational, financial, and reputational) and compliance issues may occur if options exercise and assignment processes are not properly configured for T+1.
Customer Experience	Potential Impact	Incorrectly updated options exercise and assignment processes may cause upstream and downstream implications for internal functions (e.g., reconciliation, deliveries) and impact external clients (e.g., failed trades).
Technology Enablers	Potential Impact	Issues may occur across an organization's technology platforms if options exercise and assignment processes and

Dimension	Impacted?	Summary of Risk
		options settlement data configuration are not comprehensively updated.

The dimensions below should be considered for primary offerings:

Dimension	Impacted?	Summary of Risk
Business Model	Potential Impact	Primary equity offerings are document intensive. Usually, the delivery of final prospectuses and various other documents in the current T+2 cycle occurs on the morning of settlement. The final prospectus is unlikely to be delivered prior to the settlement of the T+1 offering. Consolidated efforts need to be made to the model to accommodate for unanticipated documentation issues for a smooth transition to T+1.
Product Type	Potential Impact	Primary offering process could experience operational and settlement issues if current documentation and exception management processes are not adjusted for T+1.
Vendor & Service Bureau Support	Potential Impact	Services that fail to accommodate any documentation exceptions of primary offerings seamlessly will lead to hiccups in the settlement cycle
Trading Venue	None	The IWG determined no or minimal risk. Organizations should perform a risk assessment.
Risk & Compliance	Potential Impact	Operational risks are heightened due to a compressed timeframe that provides virtually no time to address unanticipated issues that may arise in primary offerings
Customer Experience	Potential Impact	Any unanticipated delays in documentation and inability of foreign banks to pre-fund the nominal amount/par value (in local currency) to the company in order for the company to then register the share capital increase with the local register would cause inconvenience for foreign investors.
Technology Enablers	Potential Impact	Issues may occur across an organization's technology platforms if systems and data related to primary offerings are not comprehensively updated.

The dimensions below should be considered to reconcile errors/fails:

Dimension	Impacted?	Summary of Risk
Business Model	Potential Impact	With the compressed timeline, manual processes should be automated so that the settlement instruction delivered to custodians by brokers is error-free and to eliminate discrepancies between buyer and seller.

Dimension	Impacted?	Summary of Risk
Product Type	Potential Impact	Processes should be standardized and automated to mitigate risks pertaining to data quality and integration with trade processes.
Vendor & Service Bureau Support	Potential Impact	Vendors can offer robust exception management services to identify and handle errors and fails in the accelerated settlement cycle.
Trading Venue	None	The IWG determined no or minimal risk. Organizations should perform a risk assessment.
Risk & Compliance	Potential Impact	Failure to handle SSI mismatches and standardizing cancelling and rebilling of trades would create compliance issues and increase the quantum of failed trades.
Customer Experience	Potential Impact	Reliance on legacy systems can deter the process of timely allocation of trades for customers.
Technology Enablers	Potential Impact	Inability of customers to update their SSI on automated systems or updating instructions just before the settlement in the system would risk the data quality and integrity.

The dimensions below should be considered for buy-side considerations:

Dimension	Impacted?	Summary of Risk
Business Model	Potential Impact	Final rule shifts the recordkeeping and record retention obligation to the investment managers to keep records of all steps of allocation, affirmation, and confirmation.
Product Type	Potential Impact	Buy side participants will have to identify processes and controls that can be automated and updated for them to remain effective.
Vendor & Service Bureau Support	Potential Impact	Services that fail to properly record and retain information about trade allocation, affirmation, and confirmation as per the proposed change under T+1 could cause inconvenience for customers' trades. T+1 will require documentation language updates that will impact resourcing and delivery processes (including the associated technology vendors) for buy-side.
Trading Venue	None	Minimal to no risk has been identified for trading venue.
Risk & Compliance	Potential Impact	Governance and escalation frameworks need to be in place to ensure compliance to the new final rule. Having a bespoke program in place to understand how best changes in the new accelerated cycle can be incorporated will be key.

Dimension	Impacted?	Summary of Risk
Customer Experience	Potential Impact	The failure to comply with the new proposed changes of record keeping and retention by buy-side firms may impact the timely allocation, affirmation, and confirmation of trades of the customer.
Technology Enablers	Potential Impact	Firms should look for technology solutions that can assist them to get to T+1 by analyzing their internal processes to adhere to the new timeline changes in the settlement cycle.

The dimensions detailed below should be considered for regulatory changes:

Dimension	Impacted?	Summary of Risk
Business Model	None	The IWG determined no or minimal risk. Organizations should perform a risk assessment.
Product Type	Potential Impact	Various product types (e.g., equities, fixed income, mutual funds, and derivatives) should be reviewed to ensure that systems and data linked to these product types support upstream and downstream changes for the shortened settlement period.
Vendor & Service Bureau Support	Potential Impact	Vendors and service bureaus that do not properly apply rule changes could cause risk (e.g., operational, financial, and reputational) to their customer organizations.
Trading Venue	None	The IWG determined no or minimal risk. Organizations should perform a risk assessment.
Risk & Compliance	Potential Impact	Risk (e.g., operational, financial, and reputational) and compliance issues may occur if rule changes are not properly applied for T+1 settlement.
Customer Experience	Potential Impact	Incorrectly applied rule changes may impact external clients (e.g., failed trades) and cause risk (e.g., operational, financial, and reputational).
Technology Enablers	Potential Impact	Issues may occur across an organization's technology platforms if rule changes are not comprehensively applied, potentially resulting in risk (e.g., operational, financial, and reputational).

The dimensions detailed below should be considered related testing and migration:

Dimension	Impacted?	Summary of Risk
Business Model	None	The IWG determined no or minimal risk. Organizations should perform a risk assessment.

Dimension	Impacted?	Summary of Risk
Product Type	Potential Impact	Trades involving various securities could process incorrectly or fail if testing is not comprehensive across product types.
Vendor & Service Bureau Support	Potential Impact	Vendors and service bureaus that do not properly test systems, data, and processes provided to their customer organizations could cause risk (e.g., operational, financial, and reputational) to those organizations.
Trading Venue	Potential Impact	Test plans will need to be developed for each trading venue included in industry testing.
Risk & Compliance	Potential Impact	Risk (e.g., operational, financial, and reputational) and compliance issues may occur if systems, data, and processes are not included in test plans and testing is not fully executed for T+1 settlement.
Customer Experience	Potential Impact	Insufficient testing may cause upstream and downstream implications for internal functions and impact external customers.
Technology Enablers	Potential Impact	Incomplete testing of an organization's technology platforms may lead to operational issues across internal functions and an inability to implement the shortened settlement lifecycle.

13.11 Regulatory Bodies[49]

Regulatory Bodies
BATS Global Markets (BATS)
BATS Y-Exchange (BYX)
Board of Trade of the City of Chicago (CBOT)
Boston Stock Exchange Clearing Corporation (BSECC)
BOX Options Exchange, LLC (BOX)
C2 Options Exchange (C2)
CBOE Futures Exchange (CFE)
Chicago Board Options Exchange (CBOE)
Chicago Mercantile Exchange (CME)
Chicago Mercantile Exchange (CME)

[49] The list is not meant to be comprehensive of all regulatory bodies.

Regulatory Bodies
Chicago Stock Exchange (CHX)
EDGA Exchange (EDGA)
EDGX Exchange (EDGX)
Federal Reserve (FED)
Financial Industry Regulatory Authority (FINRA)
Fixed Income Clearing Corporation (FICC)
Formerly American Stock Exchange (Amex)
Formerly Boston Stock Exchange (BSE)
Formerly National Association of Securities Dealers (NASD)
Formerly NYSE Alternext US (NYSEALTR)
Formerly NYSE Amex (NYSEAmex)
Formerly Topaz Exchange (Topaz)
Intercontinental Exchange Clear Credit (ICC)
Intercontinental Exchange Clear Europe (ICEEU)
International Securities Exchange (ISE)
International Securities Exchange Gemini (ISEGemini)
Miami International Securities Exchange LLC (MIAX)
Municipal Securities Rulemaking Board (MSRB)
National Association of Securities Dealers Automated Quotation Stock Market (NASDAQ)
NASDAQ OMX BX (BX)
NASDAQ OMX PHLX (PHLX)
National Futures Association (NFA)
National Securities Clearing Corporation (NSCC)
National Stock Exchange (NSX)
New York Stock Exchange (NYSE)
New York Stock Exchange Archipelago (NYSEArca)
New York Stock Exchange MKT (NYSEMKT)
NQLX (formerly registered)

Regulatory Bodies
OneChicago (OC)
Securities Exchange Commission (SEC)
Stock Clearing Corporation of Philadelphia (SCCP)
The Depository Trust Company (DTC)
The Options Clearing Corporation (OCC)

13.12 Sample Implementation Activities Table

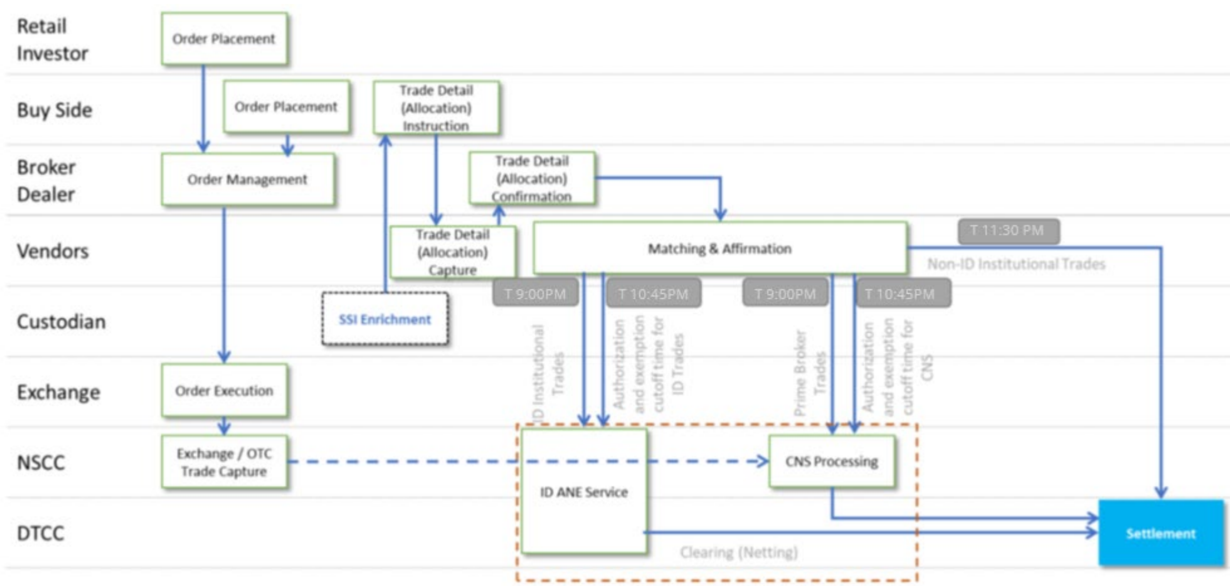
Sample Implementation Activities Table			
#	**Implementation Steps**	**Organization Participants (Front, Middle, Back, IT, Vendor)**	**Supporting Systems**
1			
2			
3			
4			
5			
6			
7			
8			

13.13 Sample Dimensions Table

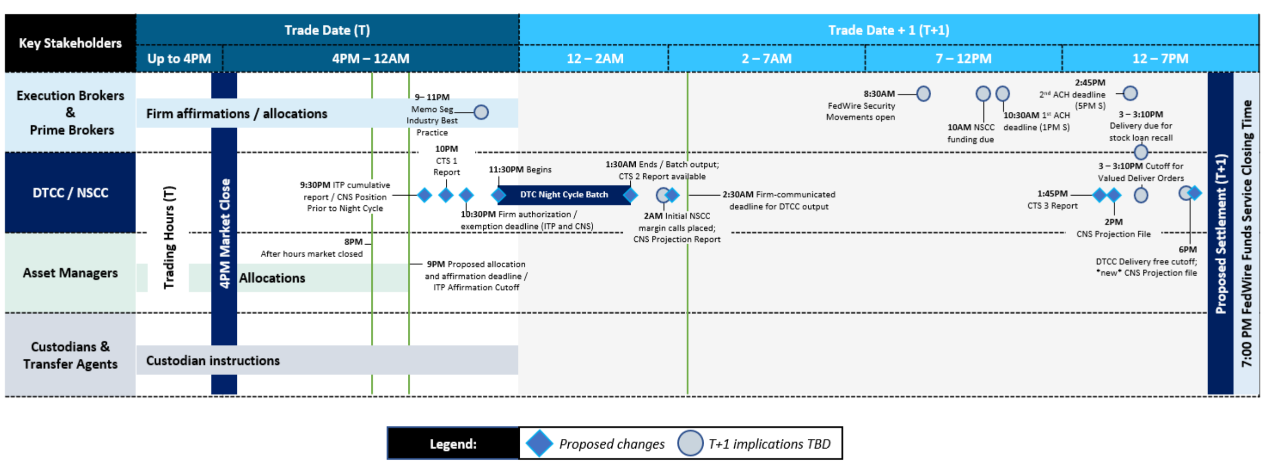
Dimension	Impacted?	Description
Business Model		
Product Type		
Vendor & Service Bureau Support		

Dimension	Impacted?	Description
Trading Venue		
Risk & Compliance		
Customer Experience		
Technology Enablers		

13.14 T+1 Settlement Trade Flow

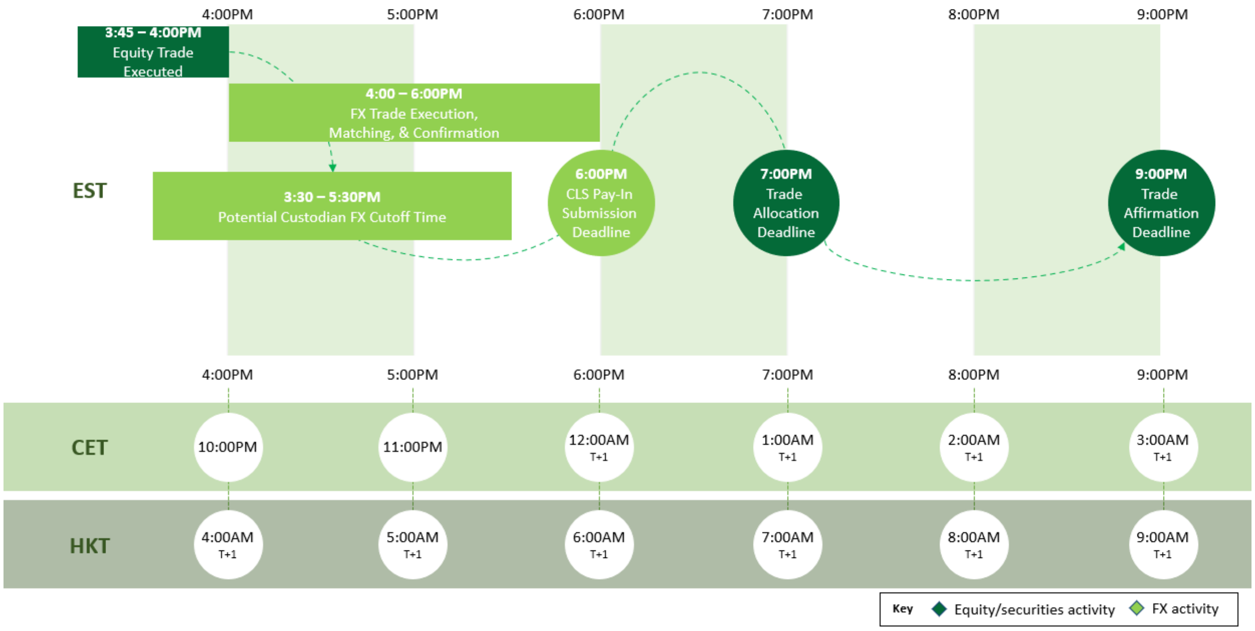


13.15 T+1 Trade Processing Flow Chart



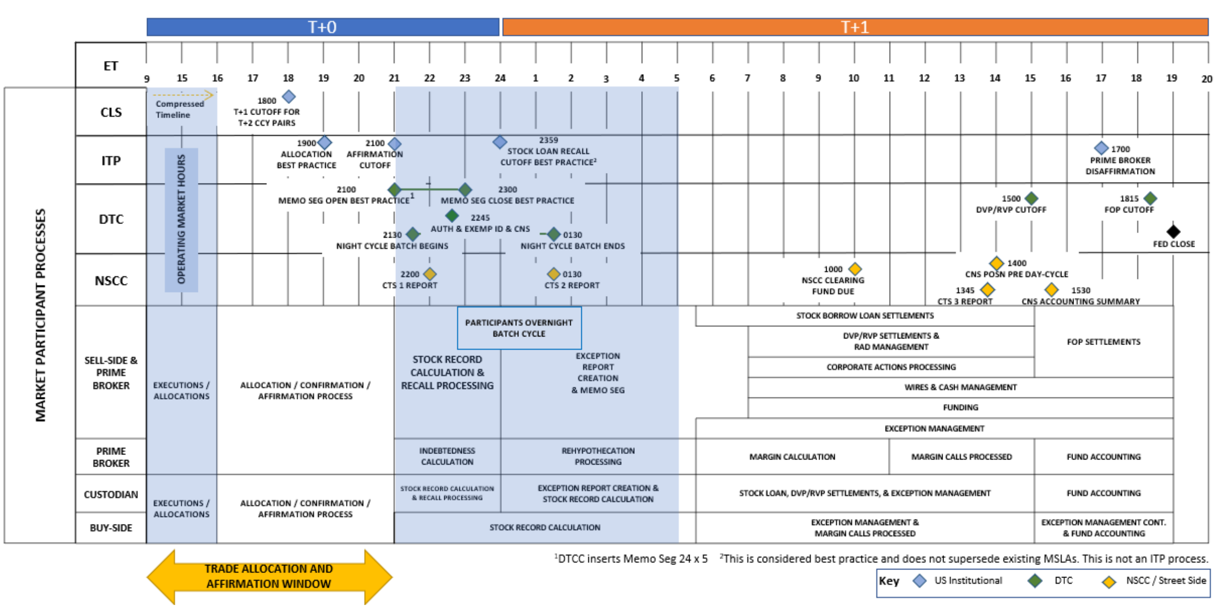
13.16 FX and Securities Timeline

FX and Securities – T+1 Settlement Timeline



13.17 DTCC Operational Timeline

T+1 Settlement Timeline – DTCC Settlement, US Client



14 Glossary

Glossary		
Term	**Acronym**	**Description**
Automated Clearing House	ACH	Automated Clearing House (ACH) is an electronic network for financial transactions in the United States. ACH processes large volumes of credit and debit transactions in batches. ACH credit transfers include direct deposit, payroll, and vendor payments.
American Depositary Receipt	ADR	A negotiable security issued by a U.S. bank representing ownership in a foreign stock that is traded on a U.S. exchange.
Authorized Participant	AP	One of the major parties at the center of the creation and redemption process for exchange-traded funds (ETF).
Corporate Bonds, Municipal Bonds, and Unit Investment Trusts	CMU	Refers to the products corporate bonds, municipal bonds, and unit investment trusts.
Continuous Net Settlement	CNS	CNS is NSCC's core accounting and securities settlement system, where compared and recorded transactions in eligible securities are netted.
Don't Know	DK	An expression for an out trade that is used when there is a discrepancy in the details of a trade.
Deliver Order	DO	An instruction for the book-entry transfer of a security from one participant to another; a DO may be free of payment or versus payment (a "DVP"). DTC also processes several other types of DOs (e.g., stock loans, customer account transfers (ACATS)).
Dividend Reinvestment Plan	DRIP	A plan offered by a corporation whereby investors' dividends are directly reinvested in the underlying equity on the dividend payment date.

Glossary		
Term	**Acronym**	**Description**
Direct Registration System	DRS	A system that enables investors to elect to hold their assets on the books and records of their transfer agent in electronic book-entry form. Through DTC's DRS service, assets can be electronically transferred to and from the transfer agent and broker-dealer.
The Depository Trust Company	DTC	One of the world's largest securities depositories that provides safekeeping through electronic recordkeeping of securities balances. It also acts like a clearinghouse to process and settle trades in corporate and municipal securities.
The Depository Trust & Clearing Corporation	DTCC	The Depository Trust & Clearing Corporation is an US post-trade financial services company providing clearing and settlement services to the financial markets.
Envelope Settlement Service	ESS	A DTCC service that standardizes and controls participant-to-participant physical delivery of securities in the New York metropolitan area.
Exchange-Traded Fund	ETF	An investment company, typically a mutual fund or unit investment trust, whose shares are traded intraday on stock exchanges at market-determined prices. Investors may buy or sell ETF shares through a broker just as they will the shares of any publicly traded company.
Federal Deposit Insurance Company	FDIC	The Federal Deposit Insurance Corporation (FDIC) is an independent agency created by the Congress to maintain stability and public confidence in the nation's financial system.
Fixed Income Clearing Corporation	FICC	An agency that deals with the confirmation, settlement, and delivery of fixed-income assets in the U.S. The agency ensures the systematic and efficient settlement of U.S. Government securities and mortgage-backed security transactions in the market.

Glossary		
Term	**Acronym**	**Description**
Financial Industry Regulatory Authority	FINRA	A regulatory body created after the merger of the National Association of Securities Dealers and the New York Stock Exchange's regulation committee. The Financial Industry Regulatory Authority is responsible for governing business between brokers, dealers, and the investing public.
Financial Information Exchange	FIX	A protocol system used by funds, investment managers, and firms. FIX systems are used to transfer accurate and timely financial information regarding securities trades through and across security exchange houses, enabling users to make timely and accurate decisions.
Foreign Exchange	FX	The exchange of one currency for another, or the conversion of one currency into another currency.
Investment Company Institute	ICI	ICI is a leading, global association of regulated funds, including mutual funds, ex- change-traded funds (ETFs), closed-end funds, and unit investment trusts (UITs) in the United States and similar funds offered to investors in jurisdictions worldwide. ICI seeks to encourage adherence to high ethical standards, promote public understanding, and otherwise advance the interests of funds, their shareholders, directors, and advisers.
Industry Steering Committee	ISC	The ISC provides guidance, direction, and support for the effort to migrate to a T+1 settlement cycle.
International Swaps and Derivatives Association	ISDA	A trade organization of participants in the market for over-the-counter derivatives.
International Securities Lending Association	ISLA	The International Securities Lending Association is a trade association established in 1989 to represent the common interests of participants in the securities lending industry.

Glossary		
Term	**Acronym**	**Description**
Institutional Trade Processing	ITP	DTCC's Institutional Trade Processing (ITP) service suite has its origins in the set of trade processing solutions that constituted the Omgeo business. Combining DTCC's global solution for legal entity identifiers and its settlement capabilities with the formerly Omgeo-branded pre-trade and matching services, ITP offers buy-side, sell-side, and custodian firms an end-to-end straight-through-processing solution for their trading activity.
Industry Working Group	IWG	The IWG supports the ISC by identifying the business requirements, rule changes, and recommending next steps for the industry initiative.
Master Securities Loan Agreement	MSLA	An agreement for use when parties may enter into transactions in which one party (a "Lender") will lend to the other party (a "Borrower") certain securities against a transfer of collateral.
Municipal Securities Rulemaking Board	MSRB	A regulating body that creates rules and policies for investment firms and banks in the issuing and sale of municipal bonds, notes and other municipal securities by states, cities, and counties.
National Association of Securities Dealers Automated Quotation Stock Market	NASDAQ	A global electronic marketplace for buying and selling securities, as well as the benchmark index for U.S. technology stocks.
National Securities Clearing Corporation	NSCC	A subsidiary of the Depository Trust & Clearing Corporation (DTCC) that provides centralized clearing, risk management, information, and settlement services to the financial industry. The NSCC offers multilateral netting so that brokers can offset buy and sell positions into a single payment obligation, thereby reducing financial exposure and capital requirements.

Glossary		
Term	**Acronym**	**Description**
New York Stock Exchange	NYSE	A stock exchange based in New York City, which is considered the largest equities-based exchange in the world based on total market capitalization of its listed securities.
Office of the Comptroller of the Currency	OCC	The OCC charters, regulates, and supervises all national banks and federal savings associations as well as federal branches and agencies of foreign banks. The OCC is an independent bureau of the U.S. Department of the Treasury.
The Options Clearing Corporation	OCC	An organization that acts as both the issuer and guarantor for option and futures contracts.
Participant Subscription Offer Program	PSOP	DTC's PSOP processor allows participants to process information regarding rights offerings including subscriptions.
Participant Tender Offer Program	PTOP	DTC's PTOP processor allows participants to process information regarding tender and exchange offers.
Qualified Special Representative	QSR	Participants of NSCC to validate and report equity transactions submitted to NSCC.
Real Time Trade Matching	RTTM	NSCC's RTTM system enables broker-dealers to automate the processing of fixed income securities traded throughout the trading day.
Securities and Exchange Commission	SEC	The SEC is an agency of the U.S. Federal Government. Its primary mission is to protect investors, maintain fair, orderly, and efficient markets, and facilitate capital formation.
The Securities Industry and Financial Markets Association	SIFMA	SIFMA is the voice of the nation's securities industry, bringing together the shared interests of hundreds of broker-dealers, banks, and asset managers.
Self-Regulatory Organizations	SRO	An organization that exercises some degree of regulatory authority over an industry or profession. The regulatory authority could be applied in addition to some form of government regulation, or it could fill the

Glossary		
Term	**Acronym**	**Description**
		vacuum of an absence of government oversight and regulation.
Standing Settlement Instruction	SSI	Settlement instructions governing the delivery of financial instruments between two counterparties.
Society for Worldwide Interbank Financial Telecommunications	SWIFT	The Society for Worldwide Interbank Financial Telecommunication provides a network that enables financial institutions worldwide to send and receive information about financial transactions in a secure, standardized, and reliable environment.
Trade Order Management Solution	TOMS	An order management system, or OMS, is a computer software system used in a number of industries for order entry and processing.
Unit Investment Trust	UIT	A type of fund with some characteristic of mutual funds and some of closed -end funds. Like mutual funds, UITs issue redeemable shares. Like closed-end funds, however, UITs typically issue only a specific, fixed number of shares. A UIT does not actively trade its investment portfolio, instead buying and holding a set of particular investments until a set termination date, at which time the trust is dissolved and proceeds are paid to shareholders.
Universal Trade Capture	UTC	A DTCC service that validates and reports equity transactions that are submitted to NSCC by an exchange or by Qualified Special Representatives (QSRs) that is an NSCC Member.

Revision History

Version	Publish Date	Description
1.0	08/01/2022	Initial publication
1.1	12/14/2022	Section 6. Securities Lending was updated to include a new best practice recall cutoff time of 11:59 PM on trade date. Additionally, minor language and formatting changes can be found throughout the document, including in Section 7. Prime Brokerage.
1.2	04/19/2023	Updated to reflect the SEC Final Rule release on February 15, 2023. Added sections: 5.3.4.A. Policies and Procedures and 11.3.1.C. Testing Dimensions
1.3	07/12/2023	Updated 13.7 T+1 Trade Processing Comparison Chart
1.4	12/05/2023	Updated to reflect industry updates Updated: Securities Lending, Prime Brokerage, Funding and Liquidity Considerations, Global Considerations, Options Exercise and Assignment Reconciliation for Errors/Fails, Regulatory Changes (to include FINRA publishing) Added FX and Securities & DTCC Operational Timelines

The information in this Playbook was prepared by Deloitte & Touche LLP (Deloitte) and commissioned by the Securities Industry and Financial Markets Association (SIFMA) and the Investment Company Institute (ICI).

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