

T+2 INDUSTRY IMPLEMENTATION PLAYBOOK

Including a Detailed Implementation Schedule,
Interim Milestones, and Dependencies

12/18/2015

T2
SETTLEMENT
12





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1. Introduction

1.1. Executive Summary

The settlement period for in-scope securities traded on the secondary market in the United States (US) is currently trade date plus three business days, commonly referred to as T+3. The financial services industry, in coordination with regulators, is planning to shorten the settlement cycle to trade date plus two business days (T+2) in Q3 2017. The products subject to the shortened settlement cycle include equities, corporate bonds, municipal bonds, unit investment trusts, and financial instruments comprised of these security types. Shortening the settlement cycle is expected to yield 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 Depository Trust & Clearing Corporation (DTCC) established the Industry Steering Committee (ISC) to oversee the T+2 settlement cycle initiative. The ISC is co-chaired by the Securities Industry and Financial Markets Association (SIFMA) and Investment Company Institute (ICI). The ISC oversees the Industry Working Group (IWG), and Sub-Working Groups (SWGs). These groups were responsible for assessing the scope, requirements, and changes needed to facilitate the implementation of T+2. The information gathered by the SWGs was summarized in the June 2015 White Paper, “Shortening the Settlement Cycle: The Move to T+2” (White Paper)¹.

On June 18, 2015, SIFMA and ICI submitted a letter, “Shortened Settlement Cycle – Regulatory Initiatives²,” to Securities and Exchange Commission (SEC) Chair Mary Jo White requesting specific regulatory changes required for the move to the T+2 settlement cycle. SEC Chair White responded to SIFMA and ICI on September 16, 2015 indicating her support for the move to T+2 and requesting that the industry continue to pursue migration to a shortened settlement cycle and provide the SEC with a “detailed implementation schedule, including interim milestones and dependencies, by December 18, 2015³.”

The ISC continued to collaborate with the IWG to develop this T+2 Industry Implementation Playbook (Playbook), which provides a timeline with milestones and dependencies as requested by SEC Chair White, as well as detailed remedial activities that impacted market participants should consider in order to prepare for migration to the T+2 settlement cycle. The implementation timelines and milestones are dependent on regulators finalizing shortened settlement cycle rules in a timely fashion. There is significant risk that migration may be delayed if milestones are not met.

The Playbook consists of nine sections. The first two sections provide overviews of the T+2 settlement cycle initiative and the Playbook; trade processing, asset servicing, and documentation contain remedial activities based on requirements described in the White Paper; and the last four contain additional considerations and regulatory, testing and migration, and industry actions on the path forward to T+2.

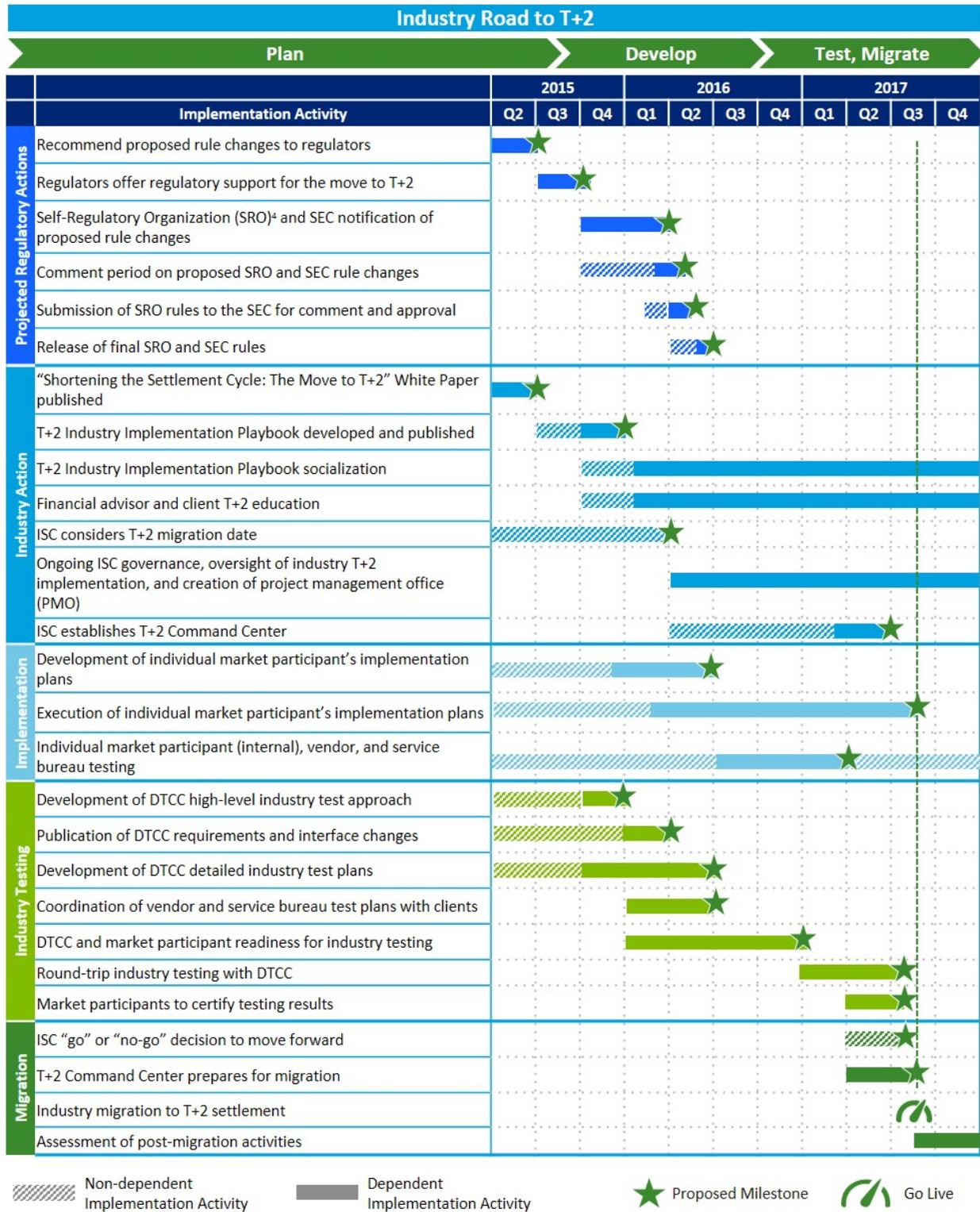
The T+2 industry and market participant implementation timelines below provide a suggested guideline for regulatory actions, industry actions, market participant implementation, industry testing, and migration milestones and dependencies identified by the industry to meet the Q3 2017 goal for migration to T+2 settlement:

¹ “Shortening the Settlement Cycle, the Move to T+2”, June 2015

² SIFMA and ICI, Shortened Settlement Cycle – Regulatory Initiatives Letter to SEC Chair White, June 18, 2015

³ SEC Chair White, Shortened Settlement Cycle Letter to SIFMA and ICI, September 16, 2015

1.1.1. T+2 Industry Implementation Timeline and Milestones

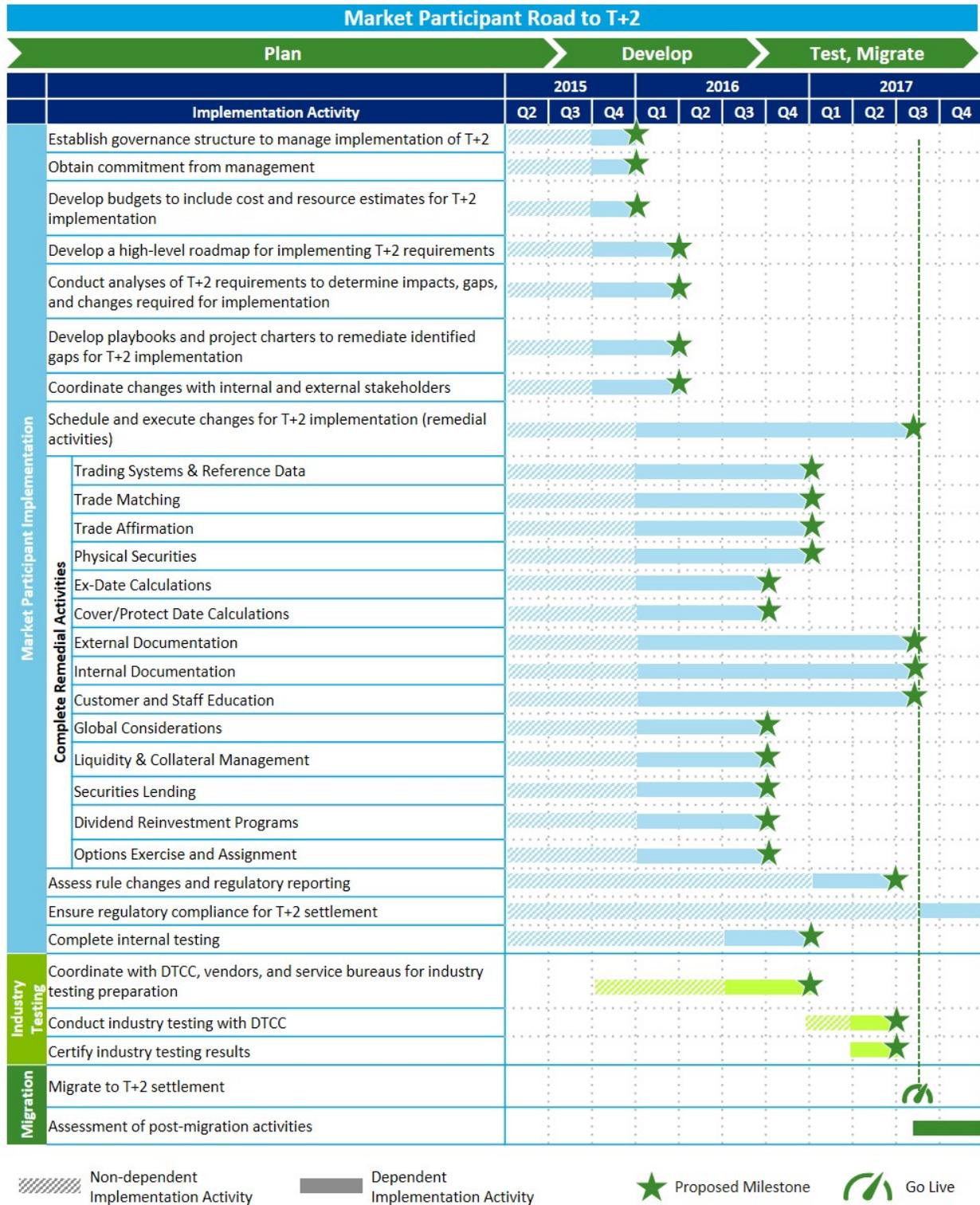


⁴ Impacted SROs include FINRA, NASD, MSRB, NYSE, and NASDAQ and relevant registered clearing agencies (e.g. NSCC, DTC)

1.1.2. T+2 Industry Implementation Activity Dependencies

	Implementation Activity	Dependency
Projected Regulatory Actions	Recommend proposed rule changes to regulators	Review of existing regulator and SRO Rule books
	Regulators offer regulatory support for the move to T+2	Dependent on SIFMA and ICI proposal of rule changes
	Self-Regulatory Organization (SRO) and SEC notification of proposed rule changes	Not dependent on previous implementation activity
	Comment period on proposed SRO and SEC rule changes	Dependent on delivery of rule changes and submission of SRO rules to the SEC for approval, the timeline could slip if the rule changes are delayed
	Submission of SRO rules to the SEC for comment and approval	Dependent on delivery of SRO rule changes to the SEC
	Release of final SRO and SEC rules	Dependent on results of comment period
Industry Action	"Shortening the Settlement Cycle: The Move to T+2" White Paper published	Creation of the IWG and review of industry systems and procedures
	T+2 Industry Implementation Playbook developed and published	Creation of the IWG and review of industry systems and procedures
	T+2 Industry Implementation Playbook socialization	Dependent upon successful publication of Playbook
	Financial advisor and client T+2 education	Not dependent on previous implementation activity
	ISC considers T+2 migration date	Dependent upon agreement of the ISC and the industry
	Ongoing ISC governance, oversight of industry T+2 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
	ISC establishes T+2 Command Center	Dependent upon selection of migration date
Implementation	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
Industry Testing	Development of DTCC high-level industry test approach	Dependent on release of rule set for direction of market changes, but should not be dependent upon approval Dependent on the creation of industry testing group
	Publication of DTCC requirements and interface changes	Dependent on DTCC defining final requirements and interface changes
	Development of DTCC detailed industry test plans	Dependent on the preliminary DTCC test plan review by market participants
	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
	Market participants to certify testing results	Dependent upon success or failure of DTCC industry testing
	ISC "go" or "no-go" decision to move forward	Dependent on ISC review of testing results and overall readiness determination
Migration	T+2 Command Center prepares for migration	Not dependent on previous implementation activity
	Industry migration to T+2 settlement	Dependent on the industry "go" or "no-go" decision
	Assessment of post-migration activities	Dependent on migration to T+2

1.1.3. T+2 Market Participant Implementation Timeline & Milestones



Dependencies against the market participant timelines and milestones can be found throughout the Playbook’s remedial activities.

1.2. Industry Efforts on the Road to T+2

1.2.1. Brief History of the Settlement Cycle: T+5 to T+3 Migration

The financial services industry move from a T+5 to T+3 settlement cycle took place in 1995. The move to T+3 was, in part, associated with the market break in 1987, as well as the bankruptcy of Drexel Burnham Lambert in 1990. As a response to these events, the SEC adopted Rule 15c6-1 under the Securities Exchange Act of 1934, shortening the settlement cycle to no later than T+3. Rule 15c6-1 was adopted in connection with other measures taken by the securities industry, Self-Regulatory Organizations (SROs), and the SEC to improve the operation of the US clearance and settlement process and reduce systemic risk. Other measures included improving the affirmation and confirmation process for institutional trades, expanding cross-margining and guarantee arrangements amongst clearing agencies, and implementing same-day funds settlement. These steps helped facilitate a smooth transition from T+5 to T+3.

1.2.2. Shortened Settlement Cycle Initiative

After the 2008 financial crisis, market participants and regulators sought to reduce systemic risk and inefficiencies. In October 2012, DTCC began an effort to shorten the US settlement cycle and commissioned a cost benefit analysis for a transition to T+2, T+1, or T+2 as an interim step to T+1. DTCC commissioned The Boston Consulting Group to conduct the cost benefit analysis of shortening the US settlement cycle, focusing on industry areas of concern, including risk reduction, capital optimization, and cost reduction from streamlining processes. The report concluded that shortening the settlement cycle to T+2 is expected to yield benefits for the industry including counterparty risk reduction, operational process efficiencies, potentially lower collateral requirements and liquidity demands, and enhanced global settlement synchronization.

Following the study, DTCC collaborated with representatives from the financial services industry, including SIFMA and ICI, to establish the ISC as a governing body to oversee the shortened settlement cycle initiative on behalf of the industry. In June 2015, the ISC published the T+2 Industry Requirements White Paper summarizing the benefits of shortening the settlement cycle and outlining requirements for T+2 implementation. In conjunction with the White Paper, SIFMA and ICI submitted a letter to the SEC requesting the necessary regulatory changes required for the move to a two day settlement cycle in the US by the end of Q3 2017.

1.2.3. Global Markets

A transition to a T+2 settlement cycle will align the US market with other major international markets that currently operate in a T+2 environment. Twenty-three European Union (EU) member states moved to a T+2 settlement cycle in October 2014, including Austria, Belgium, Czech Republic, Cyprus, Denmark, Estonia, Finland, France, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Norway, Portugal, Slovakia, Sweden, Switzerland, the Netherlands, and the United Kingdom. Spain is expected to complete its transition to T+2 settlement in Q4 2015.

The Canadian Capital Markets Association is coordinating the Canadian Market to move to a T+2 settlement cycle along with the US in Q3 2017. The IWG includes participants from the Canadian market, and the work done for the Playbook will play a role in their planning and efforts moving forward.

The Australian Consultation Paper, "Shortening the Settlement Cycle in Australia: Transitioning to T+2 for Cash Equities," published February 2015, outlines a number of important preconditions required for the transition to T+2. The paper emphasized the importance of achieving higher rates of same-day trade

affirmation as well as improving matching and settlement efficiency. Expediting the clearance of retail funds was stressed as well as the proper management of failed and late settlements. The Australian and New Zealand shift to T+2 settlement to harmonize with European and other major markets is scheduled for March 7, 2016⁵.

The European Central Bank's (ECB) Harmonisation Steering Group published a document, "Best Practices for T2S Markets' Migration to T+2: Proposals by the T2S Harmonisation Steering Group," in June 2014, outlining a number of best practices for the implementation of the shortened settlement cycle in the EU⁶. The Harmonisation Steering Group urged organizations to consider the following best practices during the migration weekend:

- Refrain from rebalancing stock market and proprietary indices based on European transferrable securities
- Refrain from rebalancing portfolios containing European transferrable securities
- Refrain from making portfolio transfers
- Refrain from scheduling major issuance events and corporate actions events
- Perform trade affirmations occurring on the double settlement as soon as possible

Additional considerations included:

- Affirmation process should be performed on trade date
- The pre-settlement matching process should be performed no later than T+1

It should also be noted that Japan is currently examining a move to T+2 settlement.

1.2.4. Governance

To oversee the T+2 settlement cycle initiative, DTCC established the ISC, co-chaired by SIFMA and ICI, as a governing body to oversee the shortened settlement cycle initiative on behalf of the industry. The ISC was tasked with providing guidance, direction, and support for the effort to migrate to a T+2 settlement cycle. The ISC is responsible for the following:

- Directing the work of the IWG and SWGs
- Monitoring the industry and impacted market participant performance against agreed upon plans (including requirements gathering, development, testing, and migration)
- Maintaining a process for communicating information, providing final input and recommendations
- Assessing industry readiness for T+2 migration
- Working with impacted agencies and regulators to facilitate required rule and regulatory changes
- Providing leadership for the transition to T+2.

Timely escalation of risks, issues, and decisions will be critical in order to meet of the milestones necessary to be prepared for T+2 migration in Q3 2017. ISC will help identify risks that can negatively impact organizational plan outcomes. As risks are identified, they will be captured and managed by the ISC. The ISC will also develop a communication plan that will detail the types of communications, audiences, frequency, and responsible parties for T+2 implementation information. Implementing the project communication plan will be critical to managing expectations during the initiative regarding what information organizations should expect to receive, and when they should expect to receive it.

⁵ ASX, "Shortening the Settlement Cycle in Australia: Transitioning to T+2 for Cash Equities Consultation," February 25, 2014

⁶ ECB, "Best Practices for T2S Markets' Migration to T+2: Proposals by the T2S Harmonization Steering Group," June 25, 2014

1.2.5. Regulatory Support

On June 18, 2015, joint chairs of the ISC, SIFMA and ICI, submitted a letter, “Shortened Settlement Cycle – Regulatory Initiatives” to SEC Chair White, requesting specific regulatory changes required for the move to the T+2 settlement cycle. SEC Chair White responded to SIFMA and ICI’s request for regulatory priority in a letter dated September 16, 2015, indicating her support for the move to T+2 and requesting that the ISC continue to pursue migration to the shortened settlement cycle. Chair White announced that she had directed the SEC staff to work closely with the SROs to develop detailed schedules for the necessary rule amendments to implement T+2 settlement and to develop a proposal to amend SEC Rule 15c6-1(a) to require payment and delivery no later than two days after the trade (T+2).

Chair White also requested that the industry develop and provide the SEC with a “detailed implementation schedule, including interim milestones and dependencies, by December 18, 2015.” The industry and market participants are dependent on the early notification and finalization of SEC and SRO rules that require amendment, no later than second quarter 2016. This will ensure an effective transition to T+2 settlement for secondary market transactions to meet a Q3 2017 migration date. The lack of coordinated and timely rule changes may create the risk of some market participants not being prepared to migrate to a shorter settlement cycle by Q3 2017.

The industry is dependent on notification of the proposed rules by regulators to define the scope of the changes needed for T+2. Organizations should begin making the necessary changes for T+2 implementation based on the proposed rules in order to meet the industry testing and migration timelines and milestones. The expectation is that the proposed rules will be comprehensive and directionally acceptable so that final rules will not differ materially from the proposals.

Organizations have a shared responsibility to review and comment on the proposed rules to ensure they stay within the intended scope. If the proposed rules are significantly amended after the comment period, the industry has determined that there is potential risk of not meeting the migration date.

1.3. Scope

1.3.1. Market Participant Scope

The move to a T+2 settlement cycle will impact organizations across the financial services industry and throughout the trade lifecycle. Impacted market participants include issuers, asset managers (‘40 Act⁷ and non-‘40 Act funds), broker-dealers (retail and institutional), global custodians, vendors, service bureaus, transfer agents, exchanges, clearing firms, and depositories.

⁷ The ‘40 Act funds refer to the Investment Company Act of 1940.

1.3.2. Product Scope

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+2 implementation. Although options settle T+1; the exercise and assignment process is subject to T+2. The following list includes products that the industry has identified as in scope for T+2 settlement. However, this list is not meant to be an exhaustive list of products that could be impacted by T+2 implementation:

In-Scope Products	
American Depositary Receipt (ADR)	Future
Asset-Backed Security (ABS) or Global ABS	Institutional Mutual Mortgage Insurance Fund (IMMI)
Auction Rate Preferred Stock	Limited Partnership
Bearer/Callable Zero Coupon Bond	Medium-Term Note
Bilateral Contracts	Municipal Amortized Issue
Certificate of Deposit	Municipal Auction Rate Note
Certificated Money Market Instrument	Municipal Bond
Closed End Fund	Municipal Derivative
Collateralized Mortgage Obligation (CMO)	Municipal Insured Custodial Receipt
Commodity Linked Note	Municipal Note
Common Stock	Municipal Option Call Right
Common Stock Real Estate Investment Trust (REIT)	Municipal Other Tax Exempt
Convertible Common Stock	Municipal Variable Mode Obligation (VMO)
Convertible Corporate Debt	Municipal VRDO
Convertible Preferred Stock	Mutual Fund
Corporate Auction Rate Note	Mutual Mortgage Insurance Fund (MMI) Banker's Acceptance Note
Corporate Bond or Global Corporate Bond	Non-CMO/ABS Amortizing Issue
Corporate Debenture	Preferred Stock
Corporate Debt Derivative	Preferred Stock REIT
Corporate Insured Custodial Receipt	Private Investment Public Equity (PIPE)
Corporate Other Tax Exempt	Right
Corporate Variable Rate Demand Obligation (VRDO)	Structured Product
Credit Linked Note	Tender Rate Preferred Stock
Debt Unit	Total Return Swaps
Depositary Share	Unit Investment Trust (UIT)
Equity Derivative	Warrant
Equity Unit	When Issued ⁸
Exchange Traded Fund (ETF)	Zero Coupon Bond
Exchange Traded Product	Zero Coupon Denominated in Initial Principal Amount

⁸ "When issued" securities trade when they are announced but not yet issued. However, when they are issued they settle regular way.

2. Playbook Overview

2.1. Purpose & Goal

The ISC is actively leading the industry initiative to shorten the settlement cycle for the securities markets in the US. The ISC worked with the IWG to determine the scope, requirements, and changes for the move to T+2 settlement, as published in the White Paper. This Playbook continues the ISC's initial work in order to provide guidance and remedial activities necessary to implement the changes needed to meet the requirements for T+2 settlement, and fulfill the SEC request to develop a detailed implementation schedule including interim milestones and dependencies.

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, it should provide users with a resource to assist with T+2 implementation.

2.2. Approach

To develop the Playbook, the ISC organized a series of workshops with the IWG to facilitate the design of remedial activities for identified implementation requirements. The workshops focused on key functional areas across the trade lifecycle and covered personnel, process, and technology implementation considerations. Further, the IWG focused on specific dimensions, discussed below, to understand the necessary changes, develop solutions, and validate the results based upon feedback received from the IWG throughout the workshops.

The Playbook captures and organizes the various requirements and remedial activities for T+2 implementation, including the following:

- An illustrative T+2 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+2 for individual organizations
- Personnel, process, and technology changes required for T+2 settlement
- Remedial activities, sub-components, and a suggested implementation approach to make the required changes to transition to T+2
- A high-level testing, migration, and industry readiness assessment plan to transition to T+2

2.3. Navigation

2.3.1. Topics

The Playbook provides timelines, milestones, and guidelines for market participants, to assist in the navigation of the planning, development, testing, and migration to a T+2 settlement cycle by Q3 2017. The different sections focus on remedial activities across trade processing, asset servicing, documentation, and additional considerations, as well as regulatory changes, testing and migration, and continued industry engagement on the path forward.

2.3.2. Remedial Activities

The information gathered during the industry workshops helped identify the necessary remedial activities and sub-components to implement the T+2 settlement cycle. The Playbook details the steps that organizations should consider for each remedial activity but allows individual market participants to make decisions based on unique organizational conditions (trading system and data specifications, operating process variations, organization size and structure differences, vendor and service bureau usage). This Playbook allows for these differences and provides a workbook for impacted market participants to use as a framework when implementing the shortened settlement cycle.

Users of the Playbook can make decisions in the sections that are relevant for their organization. The remedial activities and sub-components are listed to assist market participants in assessing how their organizations will prepare for the T+2 implementation. Tables are provided to make decisions around:

- Organization Participants (front office, middle office, back office, IT, vendor and service bureau)
- Systems (system names, internal vs. vendor and service bureau, hardware vs. software, product types)

Market participants should develop comprehensive internal implementation plans. The remedial activities and sub-components as defined below are intended to provide the users of the Playbook with a framework for assisting with implementation and migration to T+2.

Remedial Task	Remedial Task Description
Implementation Steps	Implementation steps are sub-components of remedial activities that organizations should consider as they conduct readiness activities in preparation for the migration to T+2 settlement. (Note that some remedial activities and implementation steps will not apply to each organization).
Organization Participants (Front, Middle, Back, IT, Vendor)	This column 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.
Systems	This column 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.

An example of a “completed” remedial activity table is below:

Activities to Configure Trading Systems			
#	Implementation Steps	Organization Participants (Front, Middle, Back, IT, Vendor)	Systems
1	Inventory trading systems, including hardware and software	IT	Internal, Vendor
2	Determine systems with in-scope products impacted by T+2 implementation	Back, IT	Internal
3	Examine changes required to systems for settlement date configuration	IT	Internal
4	Assess impact of required changes to upstream and downstream systems	Front, Middle, Back	Internal
5	Determine responsibility for trading system changes	IT	Internal, Vendor
6	Coordinate system changes with internal and external stakeholders	IT	Internal, Vendor
7	Develop trading system test plans	Middle, Back, Vendor	Internal, Vendor
8	Schedule and execute system changes	IT, Vendor	Internal, Vendor



2.3.3. Dimensions

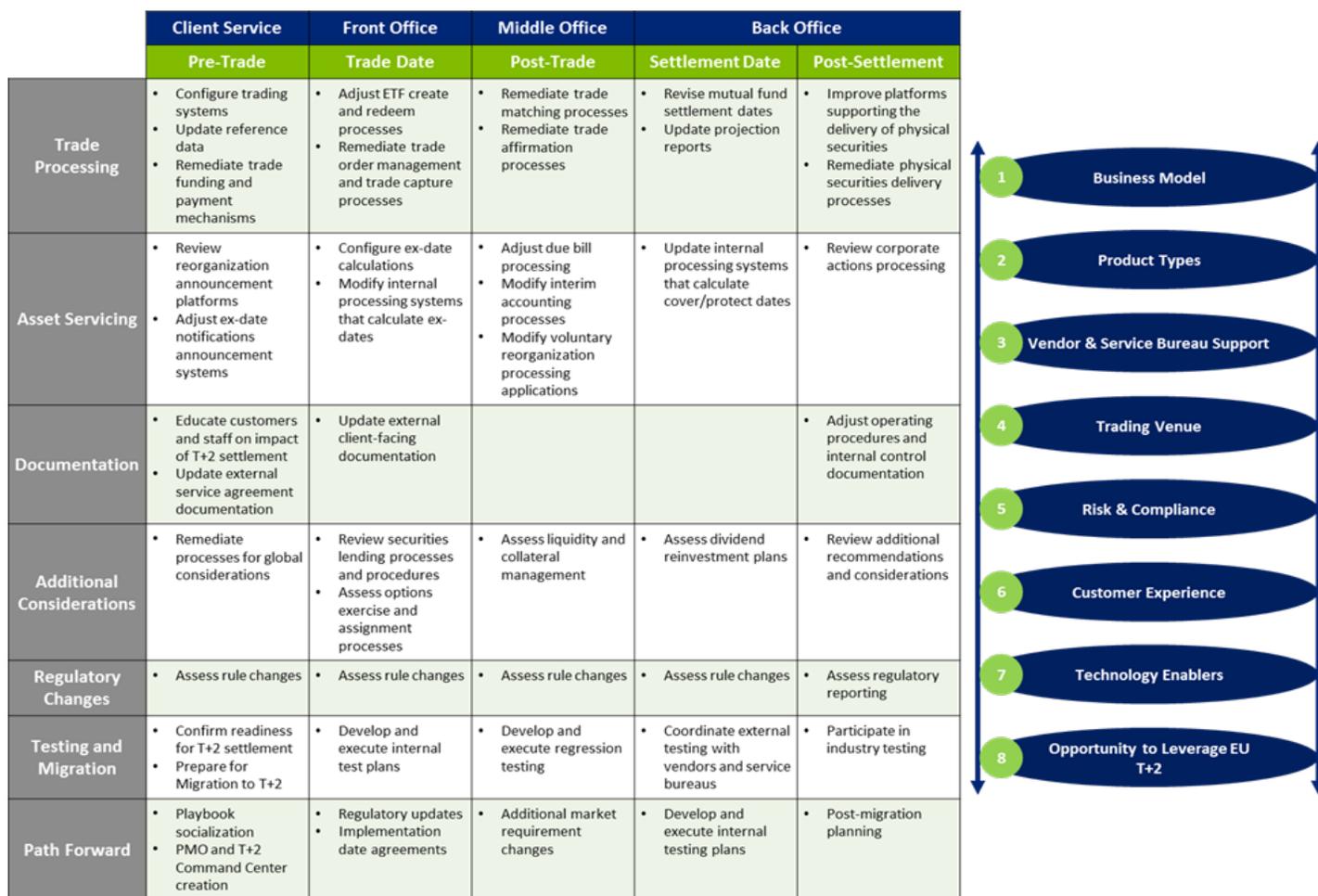
The Playbook includes eight evaluation dimensions and associated risks that organizations should consider when planning and executing the remedial activities for T+2 implementation. The table below provides a summary of associated risks (risks associated with each dimension may be different for each market participant) for each dimension:

Dimension	Summary of Risks
Business Model	Resulting ramification on an organization's business model due to the T+2 settlement cycle
Product Type ⁹	Implications for specific products 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+2 processes
Trading Venue	Trading venue specific implications to changes in the settlement cycle
Risk & Compliance	Oversight of operational process, procedure, and policy changes impacted by the T+2 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+2 implementation
Opportunity to Leverage the EU's T+2 Experience	Opportunities to leverage experiences and lessons from the EU's T+2 implementation experience beneficial for the US move to T+2 settlement

The dimensions are an integral part of the matrix approach that was used to develop the content for this Playbook. While developing the Playbook, each dimension was considered for the development of remedial activities to ensure key risks were identified.

⁹ The product type dimension refers to in-scope products unless otherwise specified.

The diagram below is an illustrative depiction that demonstrates how the dimensions were applied each section of the Playbook across the trade lifecycle for impacted market participants:



2.3.4. Requirements

The White Paper outlined industry-level requirements and sub-requirements for trade processing, asset servicing, and documentation, which organizations will need to implement for T+2 settlement. The White Paper was developed by the ISC with the support of the IWG in assessing the scope, requirements, and changes to facilitate T+2 implementation. The ISC and IWG established 17 industry workstreams across 12 market segments grouped into five SWGs. These five teams focused on identifying the in-scope products and industry-level requirements for the transition to T+2, buy side requirements, sell side and DTCC requirements, operational process and asset servicing requirements, and regulatory changes. The IWG and SWGs consisted of approximately 600 industry subject matter experts who met on a regular basis for several months beginning in November 2014.¹⁰

The identified requirements are used throughout the Playbook under the related remedial activities that organizations should consider to satisfy each requirement.

¹⁰ "Shortening the Settlement Cycle, the Move to T+2," June 2015

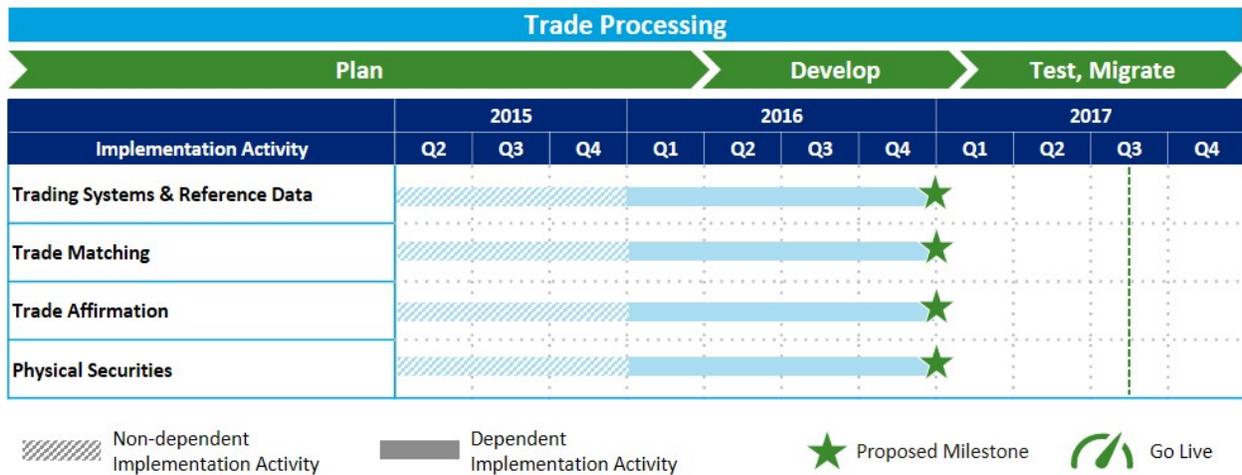
3. Trade Processing

3.1. Introduction

The move to T+2 settlement will require changes throughout the trade processing lifecycle to shorten the process from three to two days. To help guide organizations to transition to the T+2 settlement cycle the following section identifies remedial activities for trade processing that need to be considered.

3.2. Timeline and Milestones

The following timeline illustrates the trade processing remedial activities and milestones necessary to meet the Q3 2017 T+2 implementation:



3.3. Remedial Activities

3.3.1. Trading Systems and Reference Data

Trading Systems & Reference Data
Configure Trading Systems and Reference Data for T+2 Settlement

Industry-level requirement:¹¹ Reference data and trade processing systems must be configured for T+2 as standard settlement.

3.3.1a Configure Trading Systems

Sub-requirement:¹² Trade processing systems that support the lifecycle of a trade and are currently configured for T+3 settlement must be updated to support T+2 settlement as regular way/standard settlement.

Organizations will need to configure trading systems for T+2 settlement and should consider conducting a trading system assessment early on in the T+2 implementation planning process. This will assist in identifying resource needs as well as additional trading system hardware and software expenses.

¹¹ "Shortening the Settlement Cycle, the Move to T+2," June 2015

¹² Ibid.

Organizations also should consider the availability of IT personnel with comprehensive knowledge of internal trading systems, including legacy systems, when planning trading system changes.

The dimensions detailed below should be considered for trading system configuration:

3.3.1a Dimensions to Configure Trading Systems

Dimensions to Configure Trading Systems		
Dimension	Impacted?	Summary of Risk
Business Model	◆	The IWG determined no or minimal risk. Organizations should perform a risk assessment.
Product Type	✓	Trading systems should be configured for T+2 settlement to process various product types (e.g. fixed income vs. equities) correctly.
Vendor & Service Bureau Support	✓	Vendors and service bureaus that do not properly configure internal trading systems for T+2 settlement could cause risk (e.g. financial, reputational) to their customer organizations.
Trading Venue	◆	The IWG determined no or minimal risk. Organizations should perform a risk assessment.
Risk & Compliance	✓	Trading systems that are not properly configured for the new settlement period may compromise the ability to execute and settle trades in accordance with regulations. Compliance and internal audit functions should be incorporated in the trading system configuration process from inception.
Customer Experience	✓	Incorrectly configured trading 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	✓	Settlement date configuration errors may cause issues across an organization's trading systems and impact upstream and downstream functions that rely on information from the trading systems.
Opportunity to Leverage the EU's T+2 Experience	◆	The IWG determined no or minimal risk. Organizations should perform a risk assessment.

✓ Potential Impact ◆ Minimal Impact

To configure trading systems for T+2 settlement, organizations should consider the following activities:

3.3.1a Activities to Configure Trading Systems

Activities to Configure Trading Systems			
#	Implementation Steps	Organization Participants (Front, Middle, Back, IT, Vendor)	Systems
1	Inventory trading systems, including hardware and software (completeness check)		
2	Determine systems with in-scope products impacted by T+2 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 (consider how to release code prior to T+2 migration date while continuing operations for T+3 settlement)		
8	Schedule and execute system changes (consider customer experience and user interface continuity when scheduling trading system changes)		

3.3.1b Update Reference Data

Sub-requirement:¹³ Organizations must update reference data as it relates to settlement.

Organizations need to update reference data, including standing settlement instructions (SSI), for T+2 settlement. The IWG suggests that organizations coordinate with vendors and service bureaus on reference data changes in order to mitigate risks associated with updates for T+2 implementation. The dimensions detailed below should be considered for reference data updates:

3.3.1b Dimensions to Update Reference Data

Dimensions to Update Reference Data		
Dimension	Impacted?	Summary of Risk
Business Model	◆	The IWG determined no or minimal risk. Organizations should perform a risk assessment.
Product Type	✓	Various product types (e.g. equities, fixed income, mutual funds, and derivatives) should be reviewed to ensure that the reference data linked to these product types can support upstream and downstream changes for the shortened settlement period.
Vendor & Service Bureau Support	✓	Vendors and service bureaus that do not properly update reference data provided to their customer organizations could cause risk (e.g. financial, reputational) to those organizations.
Trading Venue	◆	The IWG determined no or minimal risk. Organizations should perform a risk assessment.
Risk & Compliance	✓	Risk (e.g. financial, reputational) and compliance issues (inaccurate data used for regulatory reporting) may occur if reference data is not properly configured for T+2 settlement.
Customer Experience	✓	Invalid reference data may cause upstream and downstream implications for internal functions (e.g. reconciliation, income processing) and impact external clients (e.g. client statements, trade confirmations).
Technology Enablers	✓	Issues may occur across an organization's technology platforms if reference data is not comprehensively updated.
Opportunity to Leverage the EU's T+2 Experience	✓	Inadequate understanding of required reference data changes could cause implementation challenges.

✓ Potential Impact ◆ Minimal Impact

¹³ "Shortening the Settlement Cycle, the Move to T+2," June 2015

To update reference data for T+2 settlement, organizations should consider the following activities:

3.3.1b Activities to Update Reference Data

Activities to Update Reference Data			
#	Implementation Steps	Organization Participants (Front, Middle, Back, IT, Vendor)	Systems
1	Identify data sources and inventory reference data (completeness check)		
2	Determine reference data impacted by T+2 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+2 migration date while continuing operations for T+3 settlement)		
8	Schedule and execute reference data changes		

3.3.1c Remediate Trade Funding Processes and Payment Mechanisms

Sub-requirement:¹⁴ Organizations must review payment mechanisms used to move money in anticipation of trade settlement to ensure cleared funds are available for settlement on T+2.

Organizations should consider remediating trade funding processes (both institutional and retail), including payment mechanisms (e.g. Automated Clearing House (ACH)), for T+2 settlement. The dimensions below should be considered for trade funding process and payment mechanism remediation:

3.3.1c Dimensions to Remediate Trade Funding Processes and Payment Mechanisms

Dimensions to Remediate Trade Funding Processes and Payment Mechanisms		
Dimension	Impacted?	Summary of Risk
Business Model	◆	The IWG determined no or minimal risk. Organizations should perform a risk assessment.
Product Type	◆	The IWG determined no or minimal risk. Organizations should perform a risk assessment.
Vendor & Service Bureau Support	✓	Vendors and service bureaus that do not properly update trade funding and payment data and instructions provided to their customer organizations could cause risk (e.g. financial, reputational) to those organizations.
Trading Venue	◆	The IWG determined no or minimal risk. Organizations should perform a risk assessment.
Risk & Compliance	✓	Risk (e.g. financial, reputational) and compliance issues (inaccurate data used for regulatory reporting) may occur if payment mechanisms are not properly updated for T+2 settlement.
Customer Experience	✓	Trade funding and payment mechanism issues may cause upstream and downstream implications for internal functions (e.g. reconciliation, income processing) and impact external clients (e.g. client statements, trade confirmations).
Technology Enablers	✓	Issues may occur across an organization's technology platforms if payment mechanisms and data related to trade funding are not comprehensively updated.
Opportunity to Leverage the EU's T+2 Experience	◆	The IWG determined no or minimal risk. Organizations should perform a risk assessment.

✓ Potential Impact ◆ Minimal Impact

Foreign exchange processing and procedures should be reviewed to ensure that the currency exchange is scheduled to coincide with the shortened trade settlement cycle (e.g. an investor whose account only holds GBP purchases a security in USD). Organizations should ensure that trade funding platforms or cash agents' platforms are able to exchange currencies in two days to guarantee settlement can be reached.

¹⁴ "Shortening the Settlement Cycle, the Move to T+2," June 2015

To remediate trade funding processes and payment mechanisms for T+2 settlement, organizations should consider the following activities:

3.3.1c Activities to Remediate Trade Funding Processes and Payment Mechanisms

Activities to Remediate Trade Funding Processes and Payment Mechanisms			
#	Implementation Steps	Organization Participants (Front, Middle, Back, IT, Vendor)	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		
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 ACH processing time)		
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		

3.3.1d Revise Mutual Fund Settlement Dates

Sub-requirement:¹⁵ Mutual funds with a settlement date of T+3 within Fund/SERV must coordinate with DTCC to revise the settlement date.

Organizations should revise settlement dates for mutual funds from T+3 to T+2 settlement. This is not expected to have an operational impact on the majority of organizations as it only relates to extended settlement of mutual funds. The dimensions detailed below should be considered for mutual fund settlement date revision:

3.3.1d Dimensions to Revise Mutual Fund Settlement Dates

Dimensions to Revise Mutual Fund Settlement Dates		
Dimension	Impacted?	Summary of Risk
Business Model	◆	The IWG determined no or minimal risk. Organizations should perform a risk assessment.
Product Type	✓	Mutual funds could experience operational and settlement issues if settlement dates are not updated for T+2.
Vendor & Service Bureau Support	◆	The IWG determined no or minimal risk. Organizations should perform a risk assessment.
Trading Venue	◆	The IWG determined no or minimal risk. Organizations should perform a risk assessment.
Risk & Compliance	✓	Risk (e.g. financial, reputational) and compliance issues may occur if mutual fund settlement dates are not properly adjusted for T+2 settlement.
Customer Experience	◆	The IWG determined no or minimal risk. Organizations should perform a risk assessment.
Technology Enablers	✓	Issues may occur across an organization's technology platforms if mutual fund settlement dates are not comprehensively updated.
Opportunity to Leverage the EU's T+2 Experience	◆	The IWG determined no or minimal risk. Organizations should perform a risk assessment.

✓ Potential Impact ◆ Minimal Impact

Asset managers that manage mutual funds with a settlement date of T+3 within DTCC's Fund/SERV platform should coordinate with DTCC to revise the settlement date to T+2. 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 the option of settling on T+1, T+2, T+3 or extended settlement, and those with a T+3 settlement date will have the option of revising the date to T+2 or T+1.

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.

¹⁵ "Shortening the Settlement Cycle, the Move to T+2," June 2015

To revise mutual funds for T+2 settlement, organizations, particularly asset managers that issue mutual fund shares, should consider the following remedial activities:

3.3.1d Activities to Revise Mutual Fund Settlement Dates

Activities to Revise Mutual Fund Settlement Dates			
#	Implementation Steps	Organization Participants (Front, Middle, Back, IT, Vendor)	Systems
1	Inventory mutual funds		
2	Determine whether or not 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 mutual funds (consider how to make mutual fund settlement date changes while continuing operations for T+3 settlement)		
6	Schedule and execute mutual fund settlement date changes		

3.3.1e Adjust ETF Create and Redeem Processes

Sub-requirement:¹⁶ The National Securities Clearing Corporation's (NSCC) create and redeem process for ETFs must be adjusted to define regular way/standard settlement as T+2 and shortened settlement as T+1.

Organizations that participate in the ETF create and redeem process (NSCC and ex-clearing) should adjust their processes to define standard settlement as T+2 and shortened settlement as T+1. The dimensions below should be considered for ETF create and redeem process adjustments:

3.3.1e Dimensions to Adjust ETF Create and Redeem Processes

Dimensions to Adjust ETF Create and Redeem Processes		
Dimension	Impacted?	Summary of Risk
Business Model	◆	The IWG determined no or minimal risk. Organizations should perform a risk assessment.
Product Type	✓	ETFs could experience operational and settlement issues if settlement dates are not updated for T+2.
Vendor & Service Bureau Support	◆	The IWG determined no or minimal risk. Organizations should perform a risk assessment.
Trading Venue	◆	The IWG determined no or minimal risk. Organizations should perform a risk assessment.
Risk & Compliance	✓	Risk (e.g. financial, reputational) and compliance issues may occur if ETF create and redeem processes are not properly adjusted for T+2 settlement.
Customer Experience	◆	The IWG determined no or minimal risk. Organizations should perform a risk assessment.
Technology Enablers	✓	Issues may occur across an organization's technology platforms if systems and data related to ETF create and redeem processes are not comprehensively updated.
Opportunity to Leverage the EU's T+2 Experience	◆	The IWG determined no or minimal risk. Organizations should perform a risk assessment.

✓ Potential Impact ◆ Minimal Impact

¹⁶ "Shortening the Settlement Cycle, the Move to T+2," June 2015

NSSC’s create and redeem process for ETFs will be adjusted to define regular way/standard settlement as T+2 and shortened settlement as T+1. Organizations participating in ETF create and redeem processes should consider the following activities:

3.3.1e Activities to Adjust ETF Create and Redeem Processes

Activities to Adjust ETF Create and Redeem Processes			
#	Implementation Steps	Organization Participants (Front, Middle, Back, IT, Vendor)	Systems
1	Adjust ETF create and redeem processes to define regular way/standard settlement as T+2 and shortened settlement as T+1		
2	Develop test plans for ETF creation and redemption		
3	Schedule and execute ETF settlement date changes		

3.3.1f Remediate Trade Order Management and Trade Capture Processes

Sub-requirement:¹⁷ Organizations that send Universal Trade Capture (UTC) messages to NSCC must be aware that regular way/standard settlement will be interpreted as T+2.

Organizations need to remediate trade order management and trade capture processes for T+2 settlement. Settlement by product within trade order management and trade capture processes, systems and messages, should be updated to reflect T+2 as standard settlement. The dimensions below should be considered for trade order management and trade capture process remediation:

3.3.1f Dimensions to Remediate Trade Order Management and Trade Capture Processes

Dimensions to Remediate Trade Order Management and Trade Capture Processes		
Dimension	Impacted?	Summary of Risk
Business Model	◆	The IWG determined no or minimal risk. Organizations should perform a risk assessment.
Product Type	✓	Impacted products could experience operational and settlement issues if trade order management and trade capture processes are not updated for T+2.
Vendor & Service Bureau Support	✓	Vendors and service bureaus that do not properly update trade order management and trade capture processes provided for their customer organizations could cause risk (e.g. financial, reputational) to those organizations.
Trading Venue	◆	The IWG determined no or minimal risk. Organizations should perform a risk assessment.
Risk & Compliance	✓	Compliance issues and risk (e.g. financial, reputational) may occur if trade order management and trade capture processes are not adjusted for T+2 settlement.
Customer Experience	◆	The IWG determined no or minimal risk. Organizations should perform a risk assessment.
Technology Enablers	✓	Issues may occur across an organization's technology platforms if trade order management and trade capture systems and data are not comprehensively updated.
Opportunity to Leverage the EU's T+2 Experience	◆	The IWG determined no or minimal risk. Organizations should perform a risk assessment.

✓ Potential Impact ◆ Minimal Impact

¹⁷ "Shortening the Settlement Cycle, the Move to T+2," June 2015

NSCC will interpret regular way/standard settlement in UTC messages as T+2. The UTC service is used by exchanges and Qualified Special Representatives (QSRs), who are participants of NSCC, to validate and report equity transactions submitted to NSCC. Organizations using NSCC’s UTC service need to assess processes to match trades by 11:30am on T+2 for T+2 settlement. The industry has determined that most organizations include only trade date and a regular way trade indicator, not settlement date, on trades submitted to execution venues, therefore no adjustments to UTC messages are expected for participating organizations.

Organizations using other trade matching systems should coordinate with external vendors and service bureaus (e.g. Financial Information Exchange (FIX), Society for Worldwide Interbank Financial Telecommunications (SWIFT)) to determine if any changes are required. To remediate trade order management and trade capture processes for T+2 implementation, organizations should consider the following activities:

3.3.1f Activities to Remediate Trade Order Management and Trade Capture Processes

Activities to Remediate Trade Order Management and Trade Capture Processes			
#	Implementation Steps	Organization Participants (Front, Middle, Back, IT, Vendor)	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		

3.3.2. Trade Matching

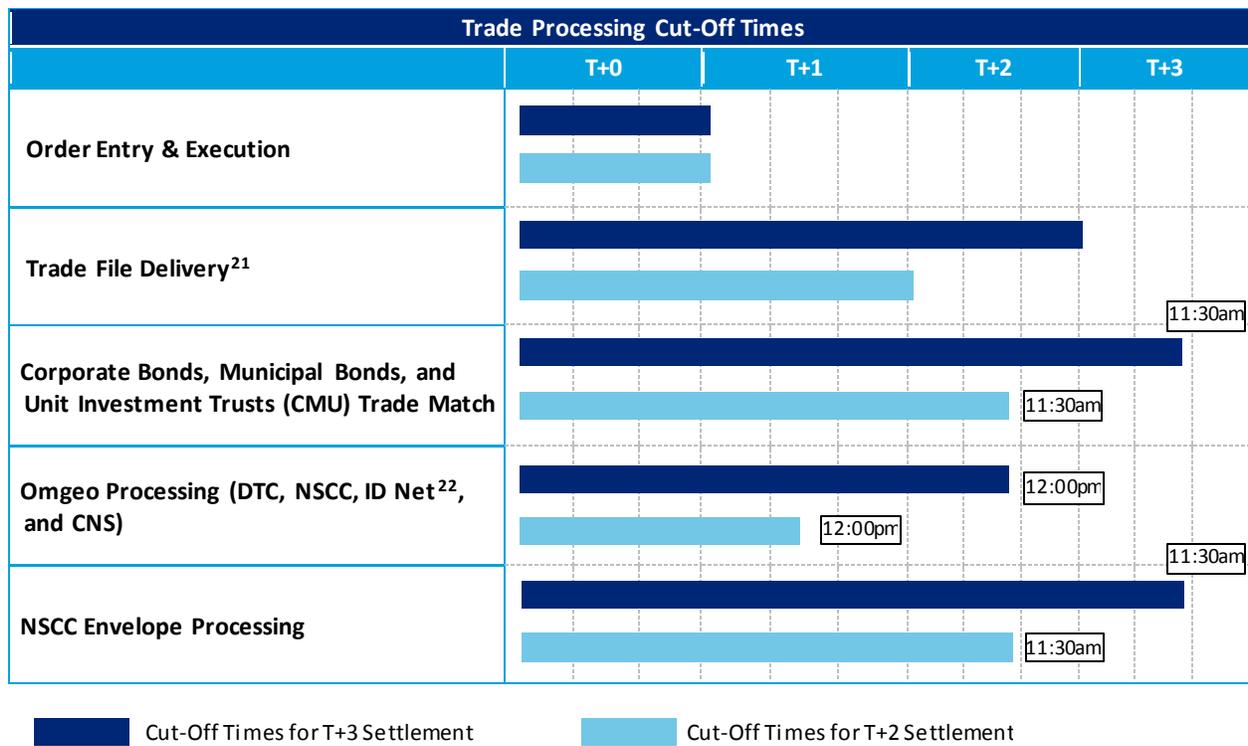
Trade Matching Match Trades for T+2 Settlement

Industry-level requirement:¹⁸ Trades must be matched in Real Time Trade Matching (RTTM) by 11:30am on T+2.

3.3.2a Remediate Trade Matching Processes

Sub-requirement:¹⁹ Trades must be matched by 11:30am on T+2 in order to be assigned a T+2 settlement date.

The chart below summarizes the anticipated the Depository Trust Company (DTC), NSCC, and Omgeo T+2 trade processing cut-off times²⁰:



¹⁸ "Shortening the Settlement Cycle, the Move to T+2," June 2015

¹⁹ Ibid.

²⁰ Figure 5: Summary of Trade Processing Cut-Off Times from "Shortening the Settlement Cycle, the Move to T+2," June 2015

²¹ The trade file delivery cut-off time is dependent on the broker-dealers and their institutional clients

²² ID Net cut-off time for T+3 settlement

Organizations need to remediate trade matching processes and make changes as necessary to ensure settlement on T+2. The dimensions detailed below should be considered for trade matching process remediation:

3.3.2a Dimensions to Remediate Trade Matching Processes

Dimensions to Remediate Trade Matching Processes		
Dimension	Impacted?	Summary of Risk
Business Model	◆	The IWG determined no or minimal risk. Organizations should perform a risk assessment.
Product Type	✓	Impacted products could experience operational and settlement issues if trade matching processes are not updated for T+2.
Vendor & Service Bureau Support	✓	Vendors and service bureaus that do not properly update trade matching processes provided for their customer organizations could cause risk (e.g. financial, reputational) to those organizations.
Trading Venue	◆	The IWG determined no or minimal risk. Organizations should perform a risk assessment.
Risk & Compliance	✓	Compliance issues and risk (e.g. financial, reputational) may occur if trade matching processes are not adjusted for T+2 settlement.
Customer Experience	◆	The IWG determined no or minimal risk. Organizations should perform a risk assessment.
Technology Enablers	✓	Issues may occur across an organization's technology platforms if systems and data related to trade matching are not comprehensively updated.
Opportunity to Leverage the EU's T+2 Experience	◆	The IWG determined no or minimal risk. Organizations should perform a risk assessment.

✓ Potential Impact ◆ Minimal Impact

Organizations should match trades by 12pm on T+1 for T+2 settlement. Same-day trade matching is not a requirement for T+2 settlement.

Organizations using NSCC’s RTTM platform should assess processes to match trades by 11:30am on T+2 for T+2 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 on T+3. This will be shortened by one day. To remediate trade matching processes for T+2 settlement, organizations should consider the following activities:

3.3.2a Activities to Remediate Trade Matching Processes

Activities to Remediate Trade Matching Processes			
#	Implementation Steps	Organization Participants (Front, Middle, Back, IT, Vendor)	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		

3.3.3. Trade Affirmation

Trade Affirmation
Affirm Trades for T+2 Settlement

The T+2 changes required to the trade affirmation process impact the cut-off times for straight through submission of affirmed trades submitted directly to DTC and NSCC for processing. At the time the Playbook was written, the only institutional trade matching service submitting affirmed trades directly to DTCC was Omgeo. As a result, the Playbook often refers specifically to Omgeo and Omgeo processes in relation to T+2 changes in affirmed institutional trade processing. When and if other institutional trade affirmation services establish direct connectivity to DTCC, those affirmation services will be subject to the same institutional trade affirmation cut-off times and processes for Omgeo identified in the Playbook.

Industry-level requirement:²³ Affirmed trades must be submitted to Omgeo by 12pm on T+1 for straight through processing.

3.3.3a Remediate Trade Affirmation Processes

Sub-requirement:²⁴ NSCC's Continuous Net Settlement system (CNS), Institutional Delivery Netting service (ID Net) (a joint service of DTC and NSCC), and other related DTC, NSCC, Omgeo systems must be adjusted to support the 12pm on T+1 cut-off for affirmed trades.

Organizations need to remediate trade affirmation processes (automated and manual) and make changes as required to ensure settlement on T+2.

²³ "Shortening the Settlement Cycle, the Move to T+2," June 2015

²⁴ Ibid.

The dimensions detailed below should be considered for trade affirmation process remediation:

3.3.3a Dimensions to Remediate Trade Affirmation Processes

Dimensions to Remediate Trade Affirmation Processes		
Dimension	Impacted?	Summary of Risk
Business Model	◆	The IWG determined no or minimal risk. Organizations should perform a risk assessment.
Product Type	✓	Impacted products could experience operational and settlement issues if trade affirmation processes are not updated for T+2.
Vendor & Service Bureau Support	✓	Vendors and service bureaus that do not properly update trade affirmation processes provided for their customer organizations could cause risk (e.g. financial, reputational) to those organizations.
Trading Venue	◆	The IWG determined no or minimal risk. Organizations should perform a risk assessment.
Risk & Compliance	✓	Compliance issues and risk (e.g. financial, reputational) may occur if trade affirmation processes are not adjusted for T+2 settlement.
Customer Experience	◆	The IWG determined no or minimal risk. Organizations should perform a risk assessment.
Technology Enablers	✓	Issues may occur across an organization's technology platforms if systems and data related to trade affirmation are not comprehensively updated.
Opportunity to Leverage the EU's T+2 Experience	◆	The IWG determined no or minimal risk. Organizations should perform a risk assessment.

✓ Potential Impact ◆ Minimal Impact

Organizations should affirm institutional trades by 12pm on T+1 for T+2 settlement. Same-day trade affirmation is not a requirement for T+2 settlement, but the industry suggests that organizations should consider affirming on T+0 as a leading practice.

NSCC's Continuous Net Settlement (CNS) system, DTC and NSCC/DTC's ID Net service, and other related DTC, NSCC and Omgeo systems will be adjusted to support the T+1 12pm cut-off time for affirmed trade submission for straight through processing.

Organizations need to remediate processes related to submitting affirmed prime broker trades, ID Net²⁵ eligible institutional trades, and non-ID Net eligible institutional trades through Omgeo by 12pm on T+1 for straight through processing. The current affirmation cut-off time for straight through processing to DTCC is 12pm on T+2 for prime broker and non-ID Net institutional trades, and 9pm T+1 for ID Net institutional trades.

²⁵ ID Net, a joint service of NSCC and DTC, combines affirmed institutional equity and UIT trades with other equity trades that participating broker-dealers may have in the CNS system. The CNS system nets trades to one security position per participant, with NSCC as the central counterparty, and settled trades through an automated book-entry accounting system.

To remediate trade affirmation processes for T+2 settlement, organizations should consider the following activities:

3.3.3a Activities to Remediate Trade Affirmation Processes

Activities to Remediate Trade Affirmation Processes			
#	Implementation Steps	Organization Participants (Front, Middle, Back, IT, Vendor)	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		
4	Coordinate changes to processes related to trade affirmation with internal and external stakeholders		
5	Develop test plans for affirmed non-IDNet eligible institutional trade submission		
6	Schedule and execute process changes for affirmed trade submission		

3.3.3b Update Projection Reports

Sub-requirement:²⁶ The CNS Projection Report must be updated to include only trades received by NSCC on trade date prior to 12am.

Organizations need to update projection reports for T+2 settlement. The below dimensions should be considered for projection report updates:

3.3.3b Dimensions to Update Projection Reports

Dimensions to Update Projection Reports		
Dimension	Impacted?	Summary of Risk
Business Model	◆	The IWG determined no or minimal risk. Organizations should perform a risk assessment.
Product Type	◆	The IWG determined no or minimal risk. Organizations should perform a risk assessment.
Vendor & Service Bureau Support	◆	The IWG determined no or minimal risk. Organizations should perform a risk assessment.
Trading Venue	◆	The IWG determined no or minimal risk. Organizations should perform a risk assessment.
Risk & Compliance	✓	Compliance issues and risk (e.g. financial, reputational) may occur if projection reports are not updated to reflect the shortened settlement cycle.
Customer Experience	✓	Projection reports not updated for T+2 settlement may cause upstream and downstream implications for internal functions (e.g. reconciliation) and impact external clients (e.g. client statements, trade confirmations).
Technology Enablers	✓	Issues may occur across an organization's technology platforms if systems and data related to projection reports are not comprehensively updated.
Opportunity to Leverage the EU's T+2 Experience	◆	The IWG determined no or minimal risk. Organizations should perform a risk assessment.

✓ Potential Impact ◆ Minimal Impact

²⁶ The CNS cut-off time has been updated since the release of "Shortening the Settlement Cycle, the Move to T+2," June 2015

NSCC will update the CNS Projection Report to only include trades received on trade date prior to 12am. Organizations should consider the impact of changes to the CNS Projection Report and projection reports provided from other vendors and service bureaus. To update projection reports and assess the impacts of changes to projection reports for T+2 settlement, organizations should consider the following activities:

3.3.3b Activities to Update Projection Reports

Activities to Update Projection Reports			
#	Implementation Steps	Organization Participants (Front, Middle, Back, IT, Vendor)	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+2 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 projection report changes		

3.3.4. Physical Securities

Physical Securities
Process Physical Securities for T+2 Settlement

Industry-level requirement:²⁷ Processing of physical securities must support T+2 settlement.

3.3.4a Improve Platforms Supporting the Delivery of Physical Securities

Sub-requirement:²⁸ Platforms designed to support the delivery of physical securities must be enhanced to support T+2 settlement.

Organizations should consider improving platforms supporting the delivery of physical securities for T+2 settlement. The dimensions detailed below should be considered for physical securities delivery platform improvement:

3.3.4a Dimensions to Improve Platforms Supporting the Delivery of Physical Securities

Dimensions to Improve Platforms Supporting the Delivery of Physical Securities		
Dimension	Impacted?	Summary of Risk
Business Model	◆	The IWG determined no or minimal risk. Organizations should perform a risk assessment.
Product Type	◆	The IWG determined no or minimal risk. Organizations should perform a risk assessment.
Vendor & Service Bureau Support	◆	The IWG determined no or minimal risk. Organizations should perform a risk assessment.
Trading Venue	◆	The IWG determined no or minimal risk. Organizations should perform a risk assessment.
Risk & Compliance	✓	Physical certificates create an implied risk to the owners, transfer agents, and organizations, as the certificate is proof of ownership. Loss of the certificate can cause risk (e.g. financial, reputational) due to insurance premium costs for replacement.
Customer Experience	✓	Delivery of physical securities in certain situations (i.e. death of owner) can be a time consuming task with documentation requirements. Delays and rework can cause external customer issues.
Technology Enablers	✓	Issues may occur across an organization's technology platforms if systems and data related to physical securities are not comprehensively updated or interfere with other processes.
Opportunity to Leverage the EU's T+2 Experience	◆	The IWG determined no or minimal risk. Organizations should perform a risk assessment.

✓ Potential Impact ◆ Minimal Impact

²⁷ "Shortening the Settlement Cycle, the Move to T+2," June 2015

²⁸ Ibid.

To improve platforms that support the delivery of physical securities for T+2 settlement, organizations should consider the following activities:

3.3.4a Activities to Improve Platforms Supporting the Delivery of Physical Securities

Activities to Improve Platforms Supporting the Delivery of Physical Securities			
#	Implementation Steps	Organization Participants (Front, Middle, Back, IT, Vendor)	Systems
1	Inventory platforms supporting physical securities delivery		
2	Determine platforms supporting physical securities delivery impacted by T+2 implementation		
3	Assess changes required to platforms supporting physical securities delivery for T+2 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 platforms supporting physical securities delivery		
7	Schedule and execute changes to platforms supporting physical securities delivery		

3.3.4b Remediate Physical Securities Delivery Processes

Sub-requirement:²⁹ The delivering member must send the physical securities no later than T+2 for NSCC's Envelope Settlement Services (ESS) processing.

Organizations should remediate processes for delivering physical securities for T+2 settlement. The dimensions detailed below should be considered for physical securities delivery process remediation:

3.3.4b Dimensions to Remediate Physical Securities Delivery Processes

Dimensions to Remediate Physical Securities Delivery Processes		
Dimension	Impacted?	Summary of Risk
Business Model	◆	The IWG determined no or minimal risk. Organizations should perform a risk assessment.
Product Type	◆	The IWG determined no or minimal risk. Organizations should perform a risk assessment.
Vendor & Service Bureau Support	◆	The IWG determined no or minimal risk. Organizations should perform a risk assessment.
Trading Venue	◆	The IWG determined no or minimal risk. Organizations should perform a risk assessment.
Risk & Compliance	✓	Compliance issues and risk (e.g. financial, reputational) related to the delivery of physical securities may occur if the ESS process is not updated to reflect the shortened settlement cycle.
Customer Experience	✓	Physical securities delivery processes not updated for T+2 settlement may cause upstream and downstream implications for internal functions (e.g. reconciliation, failed trades) and impact external clients (e.g. client statements, trade confirmations).
Technology Enablers	✓	Issues may occur across an organization's technology platforms if systems and data related to physical securities are not comprehensively updated.
Opportunity to Leverage the EU's T+2 Experience	◆	The IWG determined no or minimal risk. Organizations should perform a risk assessment.

✓ Potential Impact ◆ Minimal Impact

²⁹ "Shortening the Settlement Cycle, the Move to T+2," June 2015

Organizations participating in NSCC’s Envelope Settlement Services (ESS) will need to deliver physical securities no later than T+2 for the shortened settlement. To remediate processes for delivering physical securities, organizations should consider the following activities:

3.3.4b Activities to Remediate Physical Securities Delivery Processes

Activities to Remediate Physical Securities Delivery Processes			
#	Implementation Steps	Organization Participants (Front, Middle, Back, IT, Vendor)	Systems
1	Inventory processes for delivering physical securities		
2	Determine processes for delivering physical securities to NSCC’s ESS impacted by T+2 implementation		
3	Assess changes required to physical securities delivery processes for T+2 settlement		
4	Enhance upstream processes and procedures to increase time for the delivery of physical securities		
5	Review tracking of physical securities deliveries with transfer agents		
6	Coordinate physical securities delivery process changes with internal and external stakeholders		
7	Develop test plans for delivering physical securities for T+2 settlement		
8	Schedule and execute physical securities delivery process changes		

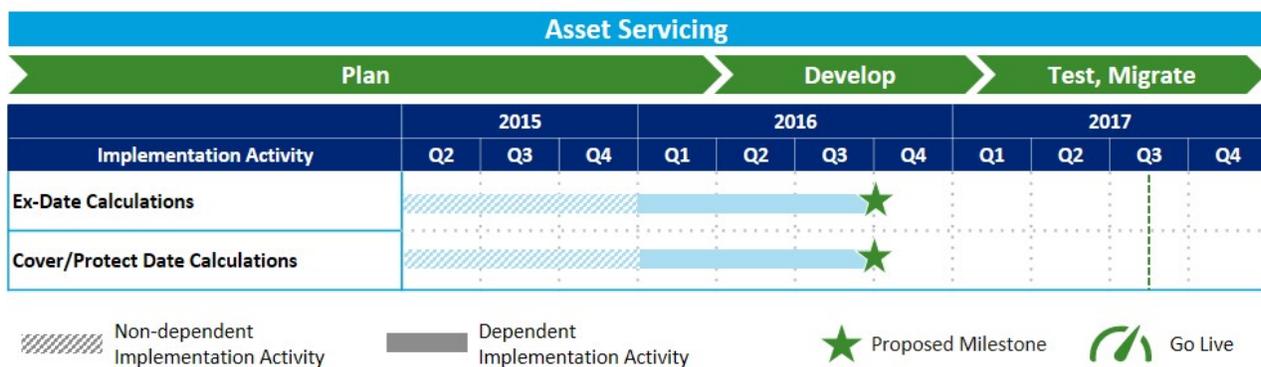
4. Asset Servicing

4.1. Introduction

The move to T+2 settlement will require changes to asset servicing functions impacted by the shortened settlement period in order to comply with new and revised regulations. To help guide organizations with implementing the T+2 settlement cycle remedial activities and sub-components related to asset servicing have been identified below.

4.2. Timeline and Milestones

The following timeline illustrates the asset servicing remedial activities and milestones necessary to meet the Q3 2017 T+2 implementation:



4.3. Remedial Activities

4.3.1. Ex-Date Calculations

Ex-Date Calculations Configure Ex-Date Calculations for T+2 Settlement

Industry-level requirement:³⁰ Organizations must adjust the ex-date period for regular way ex-date calculations and modify the due bill period calculation for regular way and irregular ex-dates.

4.3.1a Configure Ex-Date Calculations

Sub-requirement:³¹ Regular way ex-date calculations must be shortened by one business day.

Organizations need to configure ex-date calculations for T+2 settlement. Most organizations will use the supplied ex-date information received, from vendors and service bureaus, depositories, or transfer agents, therefore organizations should adjust systems and processes for capturing the provided ex-date information. Organizations that rely on asset masters to derive ex-date entitlements (e.g. fixed income interest and redemptions) should perform a review of logic used in systems and make process modifications.

³⁰ "Shortening the Settlement Cycle, the Move to T+2," June 2015

³¹ Ibid.

The dimensions detailed below should be considered for ex-date calculation configuration:

4.3.1a Dimensions to Configure Ex-Date Calculations

Dimensions to Configure Ex-Date Calculations		
Dimension	Impacted?	Summary of Risk
Business Model	◆	The IWG determined no or minimal risk. Organizations should perform a risk assessment.
Product Type	✓	Impacted products could experience income payment errors and operational issues if ex-date calculations are not updated for T+2.
Vendor & Service Bureau Support	✓	Vendors and service bureaus that do not properly update ex-date calculation data and instructions provided to their customer organizations could cause risk (e.g. financial, reputational) to those organizations.
Trading Venue	✓	Trading venues that do not properly update calculations to establish the ex-date for listed securities could cause risk (e.g. entitlement, out of balance) to participating organizations.
Risk & Compliance	✓	Risk (e.g. financial, reputational) and compliance issues related to corporate actions (e.g. dividends, stock splits) may occur if ex-date calculations are not updated to reflect the shortened settlement cycle.
Customer Experience	✓	Incorrect ex-date calculations may cause upstream and downstream implications for internal functions (e.g. reconciliation, income processing) and impact external clients (e.g. client statements, processing errors).
Technology Enablers	✓	Issues may occur across an organization's technology platforms if ex-date calculations and data are not comprehensively updated.
Opportunity to Leverage the EU's T+2 Experience	◆	The IWG determined no or minimal risk. Organizations should perform a risk assessment.

✓ Potential Impact ◆ Minimal Impact

To configure ex-date calculations for T+2 settlement, organizations should consider the following activities:

4.3.1a Activities to Configure Ex-Date Calculations

Activities to Configure Ex-Date Calculations			
#	Implementation Steps	Organization Participants (Front, Middle, Back, IT, Vendor)	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 calculation changes		
5	Examine impact of ex-date changes to compliance and oversight requirements		
6	Ensure materials regarding T+2 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 calculation changes		

4.3.1b Adjust Ex-Date Notification Announcement Systems

Sub-requirement:³² In order to process regular way ex-date notifications and irregular ex-date notifications properly, impacted organizations must make changes to their announcement systems.

Organizations need to adjust ex-date notification announcement systems for T+2 settlement to ensure proper entitlements are calculated for corporate action events. The dimensions detailed below should be considered for ex-date notification announcement system adjustment:

4.3.1b Dimensions to Adjust Ex-Date Notification Announcement Systems

Dimensions to Adjust Ex-Date Notification Announcement Systems		
Dimension	Impacted?	Summary of Risk
Business Model	◆	The IWG determined no or minimal risk. Organizations should perform a risk assessment.
Product Type	✓	Impacted products could experience income payment errors and operational issues if ex-date notifications and data are not updated for T+2.
Vendor & Service Bureau Support	✓	Vendors and service bureaus that do not properly update ex-date notifications and data provided to their customer organizations could cause risk (e.g. financial, reputational) to those organizations.
Trading Venue	✓	Trading venues that do not properly update calculations to establish the ex-date for listed securities could cause risk (e.g. entitlement, out of balance) to participating organizations.
Risk & Compliance	✓	Risk (e.g. financial, reputational) and compliance issues related to corporate actions (e.g. dividends, stock splits) may occur if ex-date notifications and data are not updated to reflect the shortened settlement cycle.
Customer Experience	✓	Incorrect ex-date notifications and 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).
Technology Enablers	✓	Issues may occur across an organization's technology platforms if ex-date notifications and data are not comprehensively updated.
Opportunity to Leverage the EU's T+2 Experience	◆	The IWG determined no or minimal risk. Organizations should perform a risk assessment.

✓ Potential Impact ◆ Minimal Impact

³² "Shortening the Settlement Cycle, the Move to T+2," June 2015

To adjust ex-date notification announcement systems for T+2 settlement, organizations should consider the following activities:

4.3.1b 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)	Systems
1	Identify announcement systems used for ex-date notifications		
2	Determine impact to ex-date notifications and announcement systems for T+2 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		

4.3.1c Modify Internal Processing Systems that Calculate Ex-Dates

Sub-requirement:³³ 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 need to modify internal processing systems that calculate ex-dates for T+2 settlement. The below dimensions should be considered for modifying internal processing systems that calculate ex-dates:

4.3.1c Dimensions to Modify Internal Processing Systems that Calculate Ex-Dates

Dimensions to Modify Internal Processing Systems that Calculate Ex-Dates		
Dimension	Impacted?	Summary of Risk
Business Model	◆	The IWG determined no or minimal risk. Organizations should perform a risk assessment.
Product Type	✓	Impacted products could experience income payment errors and operational issues if ex-date calculations are not updated for T+2.
Vendor & Service Bureau Support	✓	Vendors and service bureaus that do not properly update ex-date calculation data and instructions provided to their customer organizations could cause risk (e.g. financial, reputational) to those organizations.
Trading Venue	✓	Trading venues that do not properly update calculations to establish the ex-date for listed securities could cause risk (e.g. entitlement, out of balance) to participating organizations.
Risk & Compliance	✓	Risk (e.g. financial, reputational) and compliance issues related to corporate actions (e.g. dividends, stock splits) may occur if ex-date calculations are not updated to reflect the shortened settlement cycle.
Customer Experience	✓	Incorrect ex-date calculations may cause upstream and downstream implications for internal functions (e.g. reconciliation, income processing) and impact external clients (e.g. client statements, processing errors).
Technology Enablers	✓	Issues may occur across an organization's technology platforms if ex-date calculations and data are not comprehensively updated.
Opportunity to Leverage the EU's T+2 Experience	◆	The IWG determined no or minimal risk. Organizations should perform a risk assessment.

✓ Potential Impact ◆ Minimal Impact

³³ "Shortening the Settlement Cycle, the Move to T+2," June 2015

To modify internal processing systems that calculate ex-dates for T+2 settlement, organizations should consider the following activities:

4.3.1c 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)	Systems
1	Ensure that systems and reference data related to ex-date calculations are included in inventories for configuration		
2	Evaluate the impact to 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+2 migration date while continuing T+3 settlement operations)		
6	Schedule and execute changes related to internal ex-date calculations		

4.3.1d Adjust Due Bill Processing

Sub-requirement:³⁴ The due bill redemption period (for both regular way and irregular ex-dates) must be shortened by one business day.

The processing of instruments carrying a due bill will need to be adjusted for T+2 settlement. This includes ex-date calculations (generally there are no announcements), as well as the redemption of instruments with a due bill attached. The dimensions detailed below should be considered for due bill processing adjustment:

4.3.1d Dimensions to Adjust Due Bill Processing

Dimensions to Adjust Due Bill Processing		
Dimension	Impacted?	Summary of Risk
Business Model	◆	The IWG determined no or minimal risk. Organizations should perform a risk assessment.
Product Type	✓	Impacted products could experience income payment errors and operational issues if due bill processing and redemption periods are not updated for T+2.
Vendor & Service Bureau Support	✓	Vendors and service bureaus that do not properly update due bill processing data and redemption periods provided to their customer organizations could cause risk (e.g. financial, reputational) to those organizations.
Trading Venue	◆	The IWG determined no or minimal risk. Organizations should perform a risk assessment.
Risk & Compliance	✓	Risk (e.g. financial, reputational) and compliance issues related to due bill processing may result if the redemption period is not updated to reflect the shortened settlement cycle.
Customer Experience	✓	Incorrect ex-date calculations may cause erroneous income payments to customer resulting in risk (e.g. financial, reputational).
Technology Enablers	✓	Issues may occur across an organization's technology platforms if systems and data related to due bill processing are not comprehensively updated.
Opportunity to Leverage the EU's T+2 Experience	◆	The IWG determined no or minimal risk. Organizations should perform a risk assessment.

✓ Potential Impact ◆ Minimal Impact

³⁴ "Shortening the Settlement Cycle, the Move to T+2," June 2015

To adjust due bill processing for T+2 settlement, organizations should consider the following activities:

4.3.1d Activities to Adjust Due Bill Processing

Activities to Adjust Due Bill Processing			
#	Implementation Steps	Organization Participants (Front, Middle, Back, IT, Vendor)	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		

4.3.1e Modify Interim Accounting Processes

Sub-requirement:³⁵ DTC must modify the DTC interim accounting process to account for the shortened period.

Organizations need to modify interim accounting processes for T+2 settlement. Interim accounting is an important part of the entitlement and allocation process. The interim accounting period is defined as the time period during which a trade settling has income or a due bill attached to it. The period of time extends from the record date plus one day up to the ex-date plus two days.

During the interim accounting period, DTC facilitates the entitlements and allocation process (DTC's Distribution Processing 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. 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.

In order to prepare for the migration to T+2 settlement, DTC needs to review and modify the interim accounting process to account for the shortened period and verify that income entitlements 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.

³⁵ "Shortening the Settlement Cycle, the Move to T+2," June 2015

Organizations that process transactions outside of the DTC Distribution Processing Service will need to ensure that their systems and processes designed for the interim accounting process are adjusted for the shorter settlement period. The dimensions detailed below should be considered for interim accounting process modification:

4.3.1e Dimensions to Modify Interim Accounting Processes

Dimensions to Modify Interim Accounting Processes		
Dimension	Impacted?	Summary of Risk
Business Model	◆	The IWG determined no or minimal risk. Organizations should perform a risk assessment.
Product Type	◆	The IWG determined no or minimal risk. Organizations should perform a risk assessment.
Vendor & Service Bureau Support	✓	Vendors and service bureaus that do not properly update interim accounting information supplied to organizations could cause reputational and financial risk to the organizations
Trading Venue	◆	The IWG determined no or minimal risk. Organizations should perform a risk assessment.
Risk & Compliance	✓	Risk and compliance issues related to DTC interim accounting process may result if the process is not updated to reflect the shortened settlement cycle
Customer Experience	✓	Incorrect interim accounting data may cause downstream and upstream implications for internal clients (e.g. reconciliation). Incorrect data could also impact external clients (e.g. client statements)
Technology Enablers	◆	The IWG determined no or minimal risk. Organizations should perform a risk assessment.
Opportunity to Leverage the EU's T+2 Experience	◆	The IWG determined no or minimal risk. Organizations should perform a risk assessment.

✓ Potential Impact ◆ Minimal Impact

To modify interim accounting processes for T+2 settlement, organizations should consider the following activities:

4.3.1e Activities to Modify Interim Accounting Processes

Activities to Modify Interim Accounting Processes			
#	Implementation Steps	Organization Participants (Front, Middle, Back, IT, Vendor)	Systems
1	Ensure that systems and reference data related to interim accounting are included in inventories for configuration		
2	Evaluate the impact to 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 Calculations

Cover/Protect Date Calculations

Configure Cover/Protect Date Calculations for T+2 Settlement

Industry-level requirement:³⁶ Cover/protect date must be calculated as two business days instead of three business days after the offer expiration date.

4.3.2a Review Reorganization Announcement Platforms

Sub-requirement:³⁷ DTC needs to review its reorganization announcement platform as well as platforms supporting the Participant Tender Offer Program (PTOP) and the Participant Subscription Offer Program (PSOP) in order to ensure that the cover/protect date (last day to cover protects) is offer expiration date plus two business days.

Organizations will need to review their reorganization announcement platforms for T+2 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 three days and with the move to a T+2 settlement, the protect window will also shift to a two day period.

The PTOP and PSOP platforms, and other legacy corporate action systems used to provide information to organizations, should ensure that correct dates are distributed. Publishing incorrect information could cause financial risk and reputational harm to an organization. The Automated Tender Offer Program (ATOP) and Automated Subscription Offer Program (ASOP) should also be tested to ensure instruction submitted by transfer agents will be accepted at DTC.

³⁶ “Shortening the Settlement Cycle, the Move to T+2,” June 2015

³⁷ Ibid.

The dimensions detailed below should be considered for reorganization announcement platform review:

4.3.2a Dimensions to Review Reorganization Announcement Platforms

Dimensions to Review Reorganization Announcement Platforms		
Dimension	Impacted?	Summary of Risk
Business Model	◆	The IWG determined no or minimal risk. Organizations should perform a risk assessment.
Product Type	◆	The IWG determined no or minimal risk. Organizations should perform a risk assessment.
Vendor & Service Bureau Support	✓	Vendors and service bureaus that do not properly update reorganization announcements provided to their customer organizations could cause risk (e.g. financial, reputational) to those organizations.
Trading Venue	◆	The IWG determined no or minimal risk. Organizations should perform a risk assessment.
Risk & Compliance	✓	Risk (e.g. financial, reputational) and compliance issues related to corporate action events (e.g. missing elections) may occur if reorganization announcements are not updated to reflect the shortened settlement cycle.
Customer Experience	✓	Incorrect reorganization announcements may cause upstream and downstream implications for internal functions (e.g. corporate actions processing) and impact external clients (e.g. missing elections).
Technology Enablers	✓	Issues may occur across an organization's technology platforms if reorganization announcements are not comprehensively updated.
Opportunity to Leverage the EU's T+2 Experience	◆	The IWG determined no or minimal risk. Organizations should perform a risk assessment.

✓ Potential Impact ◆ Minimal Impact

To review reorganization announcement platforms for T+2 settlement, organizations should consider the following activities:

4.3.2a Activities to Review Reorganization Announcement Platforms

Activities to Review Reorganization Announcement Platforms			
#	Implementation Steps	Organization Participants (Front, Middle, Back, IT, Vendor)	Systems
1	Ensure that reorganization announcement platforms and reference data are included in 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		
5	Develop test plans for reorganization announcement platforms		
6	Schedule and execute changes related to reorganization announcement platforms		

4.3.2b Modify Voluntary Reorganization Processing Applications

Sub-requirement:³⁸ 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+2 settlement. The dimensions detailed below should be considered for voluntary reorganization processing application modification:

4.3.2b Dimensions to Modify Voluntary Reorganization Processing Applications

Dimensions to Modify Voluntary Reorganization Processing Applications		
Dimension	Impacted?	Summary of Risk
Business Model	◆	The IWG determined no or minimal risk. Organizations should perform a risk assessment.
Product Type	◆	The IWG determined no or minimal risk. Organizations should perform a risk assessment.
Vendor & Service Bureau Support	✓	Vendors and service bureaus that do not properly update voluntary reorganization data provided to their customer organizations could cause risk (e.g. financial, reputational) to those organizations.
Trading Venue	◆	The IWG determined no or minimal risk. Organizations should perform a risk assessment.
Risk & Compliance	✓	Risk (e.g. financial, reputational) and compliance issues related to voluntary reorganization processing may occur if applications are not modified to reflect the shortened settlement cycle.
Customer Experience	✓	Incorrect voluntary reorganization processing may cause upstream and downstream implications for internal functions (e.g. corporate actions processing) and impact external clients (e.g. missing elections).
Technology Enablers	✓	Issues may occur across an organization's technology platforms if voluntary reorganization processing applications are not comprehensively updated.
Opportunity to Leverage the EU's T+2 Experience	◆	The IWG determined no or minimal risk. Organizations should perform a risk assessment.

✓ Potential Impact ◆ Minimal Impact

³⁸ "Shortening the Settlement Cycle, the Move to T+2," June 2015

To modify voluntary reorganization processing applications for T+2 settlement, organizations should consider the following activities:

4.3.2b Activities to Modify Voluntary Reorganization Processing Applications

Activities to Modify Voluntary Reorganization Processing Applications			
#	Implementation Steps	Organization Participants (Front, Middle, Back, IT, Vendor)	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		

4.3.2c Update Internal Processing Systems that Calculate Cover/Protect Dates

Sub-requirement:³⁹ Organizations that internally derive the cover/protect date must ensure that their systems are updated to calculate cover/protect date as offer expiration date plus two business days.

Organizations need to update internal processing systems that calculate cover/protect dates for T+2 settlement. The dimensions detailed below should be considered for updating internal processing systems that calculate cover/protect dates:

4.3.2c Dimensions to Update Internal Processing Systems that Calculate Cover/Protect Dates

Dimensions to Update Internal Processing Systems That Calculate Cover/Protect Dates		
Dimension	Impacted?	Summary of Risk
Business Model	◆	The IWG determined no or minimal risk. Organizations should perform a risk assessment.
Product Type	✓	Impacted products could experience income payment errors and operational issues if cover/protect date calculations are not updated for T+2.
Vendor & Service Bureau Support	✓	Vendors and service bureaus that do not properly update cover/protect date data provided to their customer organizations could cause risk (e.g. financial, reputational) to those organizations.
Trading Venue	◆	The IWG determined no or minimal risk. Organizations should perform a risk assessment.
Risk & Compliance	✓	Risk (e.g. financial, reputational) and compliance issues related to cover/protect dates may occur if internal processing systems are not modified to reflect the shortened settlement cycle.
Customer Experience	✓	Incorrect cover/protect date processing may cause upstream and downstream implications for internal functions (e.g. corporate actions processing) and impact external clients (e.g. missing elections to participate in voluntary corporate action events, financial loss).
Technology Enablers	✓	Issues may occur across an organization's technology platforms if cover/protect date calculations are not comprehensively updated.
Opportunity to Leverage the EU's T+2 Experience	◆	The IWG determined no or minimal risk. Organizations should perform a risk assessment.

✓ Potential Impact ◆ Minimal Impact

³⁹ "Shortening the Settlement Cycle, the Move to T+2," June 2015

To update internal processing systems that calculate cover/protect dates for T+2 settlement, organizations should consider the following activities:

4.3.2c Activities to Update Internal Processing Systems that Calculate Cover/Protect Dates

Activities to Update Internal Processing Systems that Calculate Cover/Protect Dates			
#	Implementation Steps	Organization Participants (Front, Middle, Back, IT, Vendor)	Systems
1	Ensure that systems and reference data related to cover/protect date calculations are included in inventories for configuration		
2	Evaluate the impact to 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 (consider how to make changes on T+2 migration date while continuing T+3 settlement operations)		
6	Schedule and execute changes related to internal cover/protect date calculations		

4.3.3. Corporate Actions Processing Summary

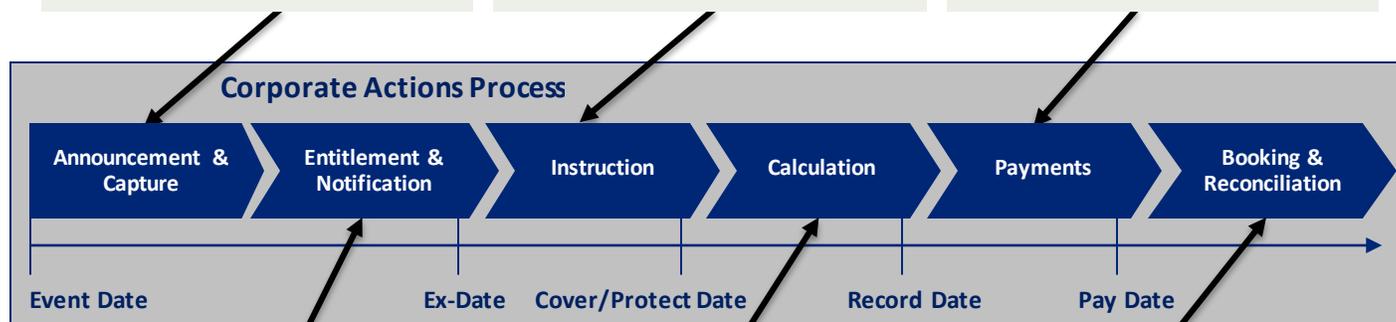
Organizations need to remediate corporate actions processes for T+2 settlement. This operational area presents a significant amount of financial and reputational risk for organizations. Vendors and service bureaus that incorrectly calculate an entitlement or cover/protect date could cause risk (e.g. 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 remedial activities required to be executed to be compliant with T+2 settlement. These include ex-date and cover/protect date calculations, for which remedial activities are discussed in previous sections of the Playbook. Located in the appendix is a list of corporate action events and potential T+2 implementation impact. The event types included are:

- Voluntary
- Mandatory
- Income Events

An overview of the corporate actions processing lifecycle with changes and considerations for the T+2 shortened settlement cycle implementation can be found below:

- Vendors and service bureaus should assess delivery systems and incorporate T+2 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 downstream 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+2 settlement.
- Organizations should consider evaluating stock borrow positions to reduce exposure to counterparty risk based on the shortened T+2 cover/protect period.
- Organizations should review securities lending processes and procedures for T+2 settlement.
- Systems and operations that support dividend reinvestment processes should be reviewed and adjusted for T+2.
- 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+2 ex-dates for mandatory and income corporate actions.
- Trading systems need to update positions based on T+2 ex-dates.
- Organizations need to update client notifications for voluntary corporate actions for T+2 settlement.
- Ex-date calculations need to be shortened to record date -1.
- In-house systems for delivery versus payment and receive versus payment transaction and dividend reinvestment processing should be reviewed by organizations.
- Calculations for "take-off sheet" adjustments need to be shortened to T+2.
- Dividend reinvestment calculations need to be adjusted for T+2.
- Mandatory warrants and rights distributions need to be timely based on T+2 ex-dates.
- Organizations should review position booking systems for coding related to settlement date and adjusted for T+2.
- Organizations should review reconciliation systems that ensure proper processing and make adjustments for T+2.
- Changes to client messaging and reporting requirements for T+2 should be considered.

5. Documentation

5.1. Introduction

The requirements around documentation for the move to T+2 settlement can be organized into four areas, including external client-facing documentation, external service agreement documentation, operating procedures and internal controls documentation, and customer and staff education:

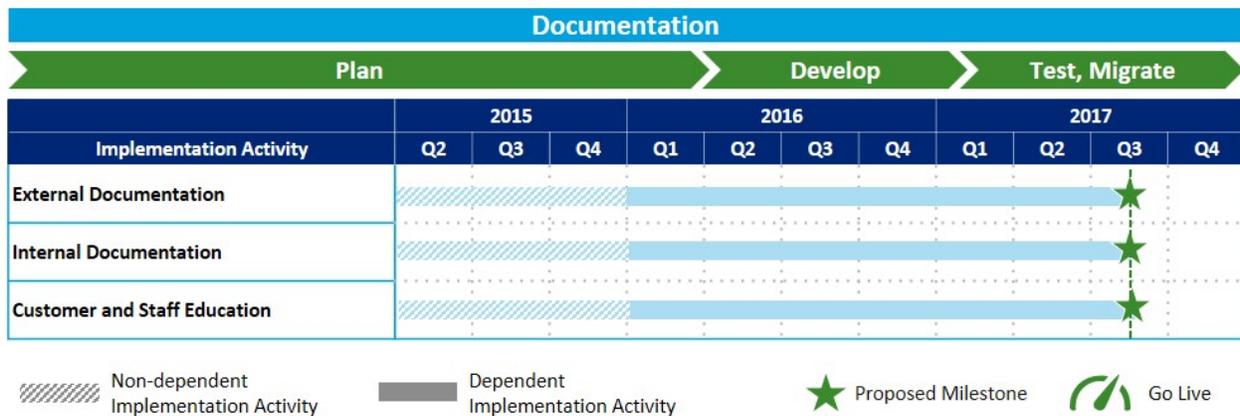
- External client-facing documents such as client statements, product sheets, prospectuses, and agreements, as well as documents informing clients of the new settlement timeline and changes to an organization's practices, should be revised for references to the settlement date.
- External service agreement documentation for utilities, vendors, and service bureaus, such as product sheets, contracts, and fee schedules, should be revised for references to the settlement date or extensions beyond settlement for subsequent processes.
- Operating procedure and internal controls documentation should be updated to reflect changes to processes and new cut-off times for T+2 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+2 settlement. Compliance training, certification programs, and job aids should be reviewed and updated to reference the shortened settlement cycle, and employee awareness documents should be updated to acknowledge the move to T+2 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 or exhaustive of potential documents that could be impacted. Organizations should use this as a framework to perform their own assessment and generate an organization’s specific list of documents that need to be updated for T+2 implementation.

Documentation				
Reference	Document(s)	Internal	External	T+2 Impact (Yes/No)
5.3.1a	10b-10 Confirmations	X	X	
5.3.1a	Balance Restriction Documentation		X	
5.3.1a	Client Account Opening Documents		X	
5.3.1a	Client Account Statements and Disclosures		X	
5.3.1a	Corporate Actions Notifications		X	
5.3.1a	Custody and Sub-Custody Documents		X	
5.3.1a	Fund Prospectus and Statements		X	
5.3.1a	Letter of Transmittal for Voluntary Corporate Actions		X	
5.3.1a	Loan Agreements (e.g. MSLA, GMSLA, and ISLA)		X	
5.3.1a	Margin Call Notifications		X	
5.3.1a	Notices of Execution	X	X	
5.3.1a	Product Issuance Documents for Rights and Warrants		X	
5.3.1a	Reinvestment Agreements and DRIP Documents		X	
5.3.1a	Stock Loan Recall Notices		X	
5.3.1a	Trading Relationship Agreements (e.g. ETFs, Swaps)		X	
5.3.1b	CNSID Net Announcements	X	X	
5.3.1b	Subscription Documentation	X	X	
5.3.1b	Transfer Agent Announcements	X	X	
5.3.1b	Utility, Vendor, and Service Bureau Product Guides	X	X	
5.3.1b	Vendor and Service Bureau Contracts and Service Agreements	X	X	
5.3.2a	Accounting Policies	X		
5.3.2a	Internal Control and Compliance Documentation	X		
5.3.2a	Operating Procedure Documentation	X		
5.3.2a	Trading, Liquidity, and Cash Flow Models	X		
5.3.3a	Client Awareness Brochures	X	X	
5.3.3a	Customer and Internal T+3 to T+2 Notices	X	X	
5.3.3a	Internal Training Materials	X		
5.3.3a	Internet and Intranet Information	X	X	

5.2. Timeline and Milestones

The following timeline illustrates the documentation remedial activities and milestones necessary to meet the Q3 2017 T+2 implementation:



5.3. Remedial Activities

5.3.1. External Documentation

External Documentation
Assess External Documentation for T+2 Settlement

Industry-level requirement:⁴⁰ Agreements, official statements, prospectuses, statements of additional information, and subscription documentation must be updated to accommodate the move to T+2.

5.3.1a Update External Client-Facing Documentation

Sub-requirement:⁴¹ 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+3 must be updated to reference T+2.

Organizations need to update external client-facing documentation related to trade settlement. These external client-facing documents will include client communications with reference to 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, swaps, and other instruments with underlying securities that are in scope for T+2 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.

⁴⁰ "Shortening the Settlement Cycle, the Move to T+2," June 2015

⁴¹ Ibid.

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

External Client-Facing Documentation				
Reference	Document(s)	Internal	External	T+2 Impact (Yes/No)
5.3.1a	10b-10 Confirmations	X	X	
5.3.1a	Balance Restriction Documentation		X	
5.3.1a	Client Account Opening Documents		X	
5.3.1a	Client Account Statements and Disclosures		X	
5.3.1a	Corporate Actions Notifications		X	
5.3.1a	Custody and Sub-Custody Documents		X	
5.3.1a	Fund Prospectus and Statements		X	
5.3.1a	Letter of Transmittal for Voluntary Corporate Actions		X	
5.3.1a	Loan Agreements (e.g. MSLA, GMSLA and ISLA)		X	
5.3.1a	Margin Call Notifications		X	
5.3.1a	Notices of Execution	X	X	
5.3.1a	Product Issuance Documents for Rights and Warrants		X	
5.3.1a	Reinvestment Agreements and DRIP Documents		X	
5.3.1a	Stock Loan Recall Notices		X	
5.3.1a	Trading Relationship Agreements (e.g. ETFs, Swaps)		X	

The dimensions below should be considered for updating external client-facing documentation:

5.3.1a Dimensions to Update External Client-Facing Documentation

Dimensions to Update External Client-Facing Documentation		
Dimension	Impacted?	Summary of Risk
Business Model	◆	The IWG determined no or minimal risk. Organizations should perform a risk assessment.
Product Type	✓	Impacted products and related services could be misrepresented to clients if documents that reference in-scope products are not updated for T+2.
Vendor & Service Bureau Support	✓	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	◆	The IWG determined no or minimal risk. Organizations should perform a risk assessment.
Risk & Compliance	✓	Risk (e.g. financial, reputational) and compliance issues related may occur if external client-facing documentation is not updated to reflect the shortened settlement cycle.
Customer Experience	✓	Incorrect external client-facing 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.
Technology Enablers	✓	Issues may occur across an organization's technology platforms if reference data and systems that populate client statements and other documentation are not comprehensively updated.
Opportunity to Leverage the EU's T+2 Experience	◆	The IWG determined no or minimal risk. Organizations should perform a risk assessment.

✓ Potential Impact ◆ Minimal Impact

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

5.3.1a Activities to Update External Client-Facing Documentation

Activities to Update External Client-Facing Documentation			
#	Implementation Steps	Organization Participants (Front, Middle, Back, IT, Vendor)	Systems
1	Inventory external client-facing documentation that references T+3 settlement, including electronic documents and website information		
2	Inventory static data resources used for auto-populating documentation that reference T+3 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		

5.3.1b Update External Service Agreement Documentation

Sub-requirement:⁴² The DTC and NSCC fee guides must be reviewed to determine the impact of the move to T+2.

Organizations need to update external service agreement documentation for T+2 settlement. Vendor and service bureau documentation will include the bi-lateral contracts between organizations and vendors and service bureaus, as well as DTC & NSCC Fee Guides. 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 three-day settlement period. Service agreement documentation should also be reviewed, for the change in delivery terms, so as to be worded consistently with the shortened settlement cycle. Documentation that references the three-day period should be updated as necessary. Agreements may need reauthorization or approval over the changes and other new terms that are introduced.

⁴² "Shortening the Settlement Cycle, the Move to T+2," June 2015

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

External Service Agreement Documentation				
Reference	Document(s)	Internal	External	T+2 Impact (Yes/No)
5.3.1b	CNS ID Net Announcements	X	X	
5.3.1b	Subscription Documentation	X	X	
5.3.1b	Transfer Agent Announcements	X	X	
5.3.1b	Utility, Vendor, and Service Bureau Product Guides	X	X	
5.3.1b	Vendor and Service Bureau Contracts and Service Agreements	X	X	
5.3.1b	Vendor and Service Bureau Fee Guides	X	X	

The below dimensions should be considered for updating external service agreement documentation:

5.3.1b Dimensions to Update External Service Agreement Documentation

Dimensions to Update External Service Agreement Documentation		
Dimension	Impacted?	Summary of Risk
Business Model	◆	The IWG determined no or minimal risk. Organizations should perform a risk assessment.
Product Type	◆	The IWG determined no or minimal risk. Organizations should perform a risk assessment.
Vendor & Service Bureau Support	✓	Vendors and service bureaus that do not properly update service agreements and documentation for the shortened settlement cycle could provide inaccurate and potentially misleading information to their customer organizations.
Trading Venue	◆	The IWG determined no or minimal risk. Organizations should perform a risk assessment.
Risk & Compliance	✓	Risk (e.g. financial, reputational) and delivery of service issues may occur if external service agreement documentation is not updated to reflect the shortened settlement cycle.
Customer Experience	✓	Incorrect external service agreement documentation may cause reputational damage to an organization and impact clients by potential misinformation. Potential fines and financial liabilities could result from client losses based on misinformation from inaccurate documentation.
Technology Enablers	✓	Issues may occur across an organization's technology platforms if reference data and systems that populate external service agreement documentation are not comprehensively updated.
Opportunity to Leverage the EU's T+2 Experience	◆	The IWG determined no or minimal risk. Organizations should perform a risk assessment.

✓ Potential Impact ◆ Minimal Impact

To update external service agreement documentation for T+2 settlement, organizations should consider the following activities:

5.3.1b Activities to Update External Service Agreement Documentation

Activities to Update External Service Agreement Documentation			
#	Implementation Steps	Organization Participants (Front, Middle, Back, IT, Vendor)	Systems
1	Inventory vendor and service bureau documentation that references a three day settlement period, including agreements, service descriptions, product guides, and fee schedules		
2	Update external vendor and service bureau documentation for two 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		

5.3.2. Internal Documentation

Internal Documentation
Adjust Internal Documentation for T+2 Settlement

Industry-level requirement:⁴³ Procedure documentation and training materials must be updated to specify T+2 as standard settlement.

5.3.2a Adjust Operating Procedures and Internal Control Documentation

Sub-requirement:⁴⁴ Organizations will need to adjust their operating procedures and internal training materials.

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+2 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 three day settlement.

⁴³ "Shortening the Settlement Cycle, the Move to T+2," June 2015

⁴⁴ Ibid.

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+2 Impact (Yes/No)
5.3.2a	Accounting Policies	X		
5.3.2a	Internal Control and Compliance Documentation	X		
5.3.2a	Operating Procedure Documentation	X		
5.3.2a	Trading, Liquidity, and Cash Flow Models	X		

The dimensions below should be considered for adjusting operating procedures and internal control documentation:

5.3.2a Dimensions to Adjust Operating Procedures and Internal Control Documentation

Dimensions to Adjust Operating Procedures and Internal Control Documentation		
Dimension	Impacted?	Summary of Risk
Business Model	◆	The IWG determined no or minimal risk. Organizations should perform a risk assessment.
Product Type	◆	The IWG determined no or minimal risk. Organizations should perform a risk assessment.
Vendor & Service Bureau Support	✓	Vendors and service bureaus that do not properly update operating procedures provided to their customer organizations could cause risk (e.g. operational, reputational) to those organizations and potential upstream and downstream issues.
Trading Venue	✓	References to the T+3 settlement cycle in the operating procedures and internal control documentation will not align to updated rules of trading venues.
Risk & Compliance	✓	Risk (e.g. operational, financial, reputational) and compliance issues may occur if operating procedures and internal control documentation is not updated to reflect the shortened settlement cycle.
Customer Experience	◆	The IWG determined no or minimal risk. Organizations should perform a risk assessment.
Technology Enablers	✓	Issues may occur across an organization's technology platforms if operating procedures and internal control documentation are outdated.
Opportunity to Leverage the EU's T+2 Experience	◆	The IWG determined no or minimal risk. Organizations should perform a risk assessment.

✓ Potential Impact ◆ Minimal Impact

To adjust operating procedures and internal control documentation for T+2 settlement, organizations should consider the following activities:

5.3.2a Activities to Adjust Operating Procedures and Internal Control Documentation

Activities to Adjust Operating Procedures and Internal Control Documentation			
#	Implementation Steps	Organization Participants (Front, Middle, Back, IT, Vendor)	Systems
1	Identify and inventory sources for operating procedures and control documentation		
2	Determine operating procedures and control documentation that reference T+3 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

Customer & Staff Education
Educate Customers and Staff on T+2 Settlement

5.3.3a Educate Customers and Staff on T+2 Settlement

Sub-requirement:⁴⁵ Organizations must educate customers and staff on how the shortened settlement window impacts their behaviors and related processes.

Organizations should educate customers and staff on how the shortened settlement window impacts them, their responsibilities, and related processes. Internal training should be updated to reflect the new settlement period and operating procedures. Job aids 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+2 should be considered for both internal and external education.

Formal education and communication of the shortened settlement should begin in Q1 2016, as processes effecting 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+2 Impact (Yes/No)
5.3.3a	Client Awareness Brochures	X	X	
5.3.3a	Customer and Internal T+3 to T+2 Notices	X	X	
5.3.3a	Internal Training Materials	X		
5.3.3a	Internet and Intranet Information	X	X	

⁴⁵ "Shortening the Settlement Cycle, the Move to T+2," June 2015

Organizations need to educate customers and staff on impacts of T+2 settlement. The dimensions detailed below should be considered for educating customers and staff on T+2:

5.3.3a Dimensions to Educate Customers and Staff on T+2 Settlement

Dimensions to Educate Customers and Staff on T+2 Settlement		
Dimension	Impacted?	Summary of Risk
Business Model	◆	The IWG determined no or minimal risk. Organizations should perform a risk assessment.
Product Type	✓	Internal and external documentation about the industry's move to T+2 should be updated in order for customers and staff to be aware of impacts to in-scope products.
Vendor & Service Bureau Support	✓	Vendors and service bureaus that do not properly update training materials provided to their customer organizations could cause risk (e.g. operational, financial, and reputational) to those organizations.
Trading Venue	◆	The IWG determined no or minimal risk. Organizations should perform a risk assessment.
Risk & Compliance	✓	Risk (e.g. operational, financial, reputational) and compliance issues (e.g. licensing exams) may occur if training materials are not updated to inform staff about the T+2 settlement cycle.
Customer Experience	✓	Incorrect customer education materials may cause reputational damage to an organization and impact clients by potential misinformation.
Technology Enablers	✓	Online and computer based training programs, and internet and intranet information could be obsolete and cause operational issues an organization.
Opportunity to Leverage the EU's T+2 Experience	✓	The risk of not investing in awareness campaign in advance of the move to T+2 could impact organizations and their clients.

✓ Potential Impact ◆ Minimal Impact

To educate customers and staff on T+2 settlement, organizations should consider the following activities:

5.3.3a Activities to Educate Customers and Staff on T+2 Settlement

Activities to Educate Customers and Staff on T+2 Settlement			
#	Implementation Steps	Organization Participants (Front, Middle, Back, IT, Vendor)	Systems
1	Identify customers and staff who require education related to T+2 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+2 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+2 implementation		
9	Distribute T+2 settlement education material to customers		

6. Additional Considerations

6.1. Introduction

In addition to trade processing, asset servicing, and documentation, organizations should assess other areas, including global considerations, liquidity and collateral management, securities lending, dividend reinvestment programs, options exercise and assignment, exception handling, and additional considerations for the move to T+2 settlement. To help guide organizations with implementing the T+2 settlement cycle remedial activities and recommendations related to these areas are identified below.

6.2. Timeline and Milestones

The following timeline illustrates the additional considerations remedial activities and milestones necessary to meet the Q3 2017 T+2 implementation:



6.3. Remedial Activities

6.3.1. Global Considerations

Global Considerations

Remediate Processes for Global Considerations for T+2 Settlement

6.3.1a Remediate Processes for Global Considerations

Organizations will need to remediate processes for global considerations for T+2 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 for T+2 settlement. Trading platforms may link their currency exchanges to align with trade settlements. These rules and systemic configuration should be reviewed for purchases of US 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 US moving to T+2, organizations will need to make adjustments to account for markets that are now in-sync with the US settlement cycle. Organizations also will need to account for those markets that will fall out-of-sync with the US market after the move to T+2.

American Depositary Receipt (ADR) Underlying Relationships

- ADRs will be impacted across trade processing, asset servicing, documentation, and other areas similar to US issued equities. The IWG believes that sponsored and unsponsored ADR issuers should review their issuance and cancellation procedures to ensure that changes are addressed to shorten the settlement cycle.

Multi-Currency Security Types

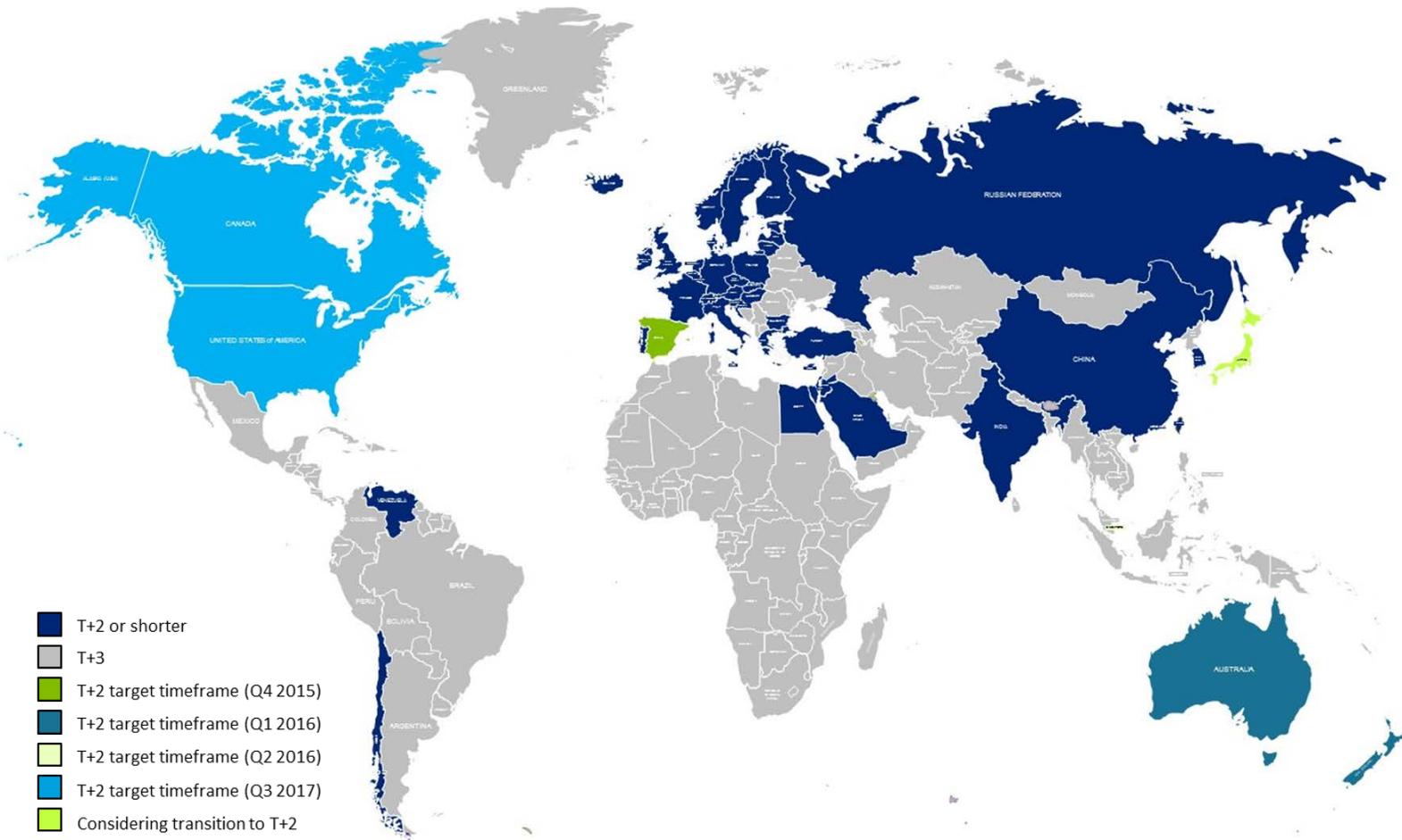
- US securities trade around the globe on different markets and with different security identifiers. The industry did not identify remedial activities regarding multi-currency securities, as these securities trade based on location and particular market rules.

Global Tax Considerations

- The IWG found that the move to T+2 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+2 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). A visual on how the US market will align with international markets after the move to T+2 in 2017 is highlighted below:



The list below includes global market settlement cycles and planned migration dates⁴⁶:

Currently T+2 or Shorter	
1. Austria	21. Italy
2. Belgium	22. Jordan
3. Bulgaria	23. Korea
4. Chile	24. Latvia
5. China	25. Lithuania
6. Croatia	26. Luxembourg
7. Cyprus	27. Malta
8. Czech Republic	28. Netherlands
9. Denmark	29. Norway
10. Egypt	30. Poland
11. Estonia	31. Portugal
12. Finland	32. Russia
13. France	33. Saudi Arabia
14. Germany	34. Slovakia
15. Greece	35. Slovenia
16. Hong Kong	36. Sweden
17. Hungary	37. Switzerland
18. Iceland	38. Taiwan
19. India	39. Turkey
20. Ireland	40. United Kingdom
21. Israel	41. Venezuela

Migration to T+2	
Confirmed Migration to T+2	
1. Australia	Q1 2016
2. Canada	Q3 2017
3. New Zealand	Q1 2016
4. Singapore	Q2 2016
5. Spain	Q4 2015
6. United States	Q3 2017
Anticipated Migration to T+2	
1. Japan	TBD

⁴⁶ ASX, "Shortening the Settlement Cycle in Australia: Transitioning to T+2 for Cash Equities Consultation," February 25, 2014
 Bourse Consult, Hugh Simpson, "Shortening the Settlement Cycle From T+3 to T+2," October 3, 2014
 CDS Clearing and Depository Services Inc., "CDS Move to T+2," September 2015.
 Euro CCP, "T+2 Settlement Cycle Announcement"
 ECB, "Best Practices for T2S Markets' Migration to T+2: Proposals by the T2S Harmonization Steering Group," June 25, 2014
 HSBC, "T+2 EU Industry Wide Shortened Settlement Cycle for Securities," October 2014
 James Rundle, Waterstechnology, "Singapore Moves to Shorten Settlement Cycle," February 10, 2014
 Nikesh Agarwal, Maveric Systems, "Shortening the Securities Settlement Cycle – Impacts and Insights," October 22, 2014
 "Shortening the Settlement Cycle, the Move to T+2," June 2015

The dimensions detailed below should be considered for remediation of global considerations processes:

6.3.1a Dimensions to Remediate Global Considerations Processes

Dimensions to Remediate Global Considerations Processes		
Dimension	Impacted?	Summary of Risk
Business Model	◆	The IWG determined no or minimal risk. Organizations should perform a risk assessment.
Product Type	✓	ADRs could experience operational and settlement issues if settlement dates, processes, and procedures are not updated for T+2. ADR issuance and cancellation procedures should be reviewed to ensure that the T+2 settlement cycle does not cause issues. Product type purchases and sales that are linked to a foreign exchange should be reviewed.
Vendor & Service Bureau Support	✓	Vendors and service bureaus that do not properly update operation management systems (OMS) used by customer organizations to ensure that global processing supports the T+2 settlement could cause risk (e.g. financial, reputational) to those organizations.
Trading Venue	◆	The IWG determined no or minimal risk. Organizations should perform a risk assessment.
Risk & Compliance	✓	Risk (e.g. financial, reputational) and compliance issues may occur if global trade processes are not properly updated for T+2 settlement.
Customer Experience	✓	Issues with global trade processes may cause upstream and downstream implications for internal functions (e.g. trade funding) and impact external clients (e.g. failed trades, overdrawn currency balances).
Technology Enablers	✓	Cross border trades may fail if trading systems that link foreign exchange to trade orders are not updated for T+2 settlement. Without system updates, the cash side of the orders will be expecting T+3 settlement and cleared funds will not be available.
Opportunity to Leverage the EU's T+2 Experience	✓	Experiences from the EU's T+2 implementation should be reviewed with regards to cross border transactions.

✓ Potential Impact ◆ Minimal Impact

To remediate processes related to global considerations for T+2 settlement, organizations should consider the following activities:

6.3.1a Activities to Remediate Processes for Global Considerations

Activities to Remediate Processes for Global Considerations			
#	Implementation Steps	Organization Participants (Front, Middle, Back, IT, Vendor)	Systems
1	Identify changes to market synchronization for T+2 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+2 implementation		
5	Coordinate identified changes with internal and external stakeholders		
6	Schedule and execute identified changes		

6.3.2. Liquidity and Collateral Management

Liquidity and Collateral Management
Assess Liquidity and Collateral Management for T+2 Settlement

6.3.2a Assess Liquidity and Collateral Management

Organizations need to assess liquidity and collateral management processes for T+2 settlement. The migration to T+2 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.

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+2 environment. In regards to 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.

The dimensions detailed below should be considered for liquidity and collateral management assessment:

6.3.2a Dimensions to Assess Liquidity and Collateral Management

Dimensions to Assess Liquidity and Collateral Management		
Dimension	Impacted?	Summary of Risk
Business Model	◆	The IWG determined no or minimal risk. Organizations should perform a risk assessment.
Product Type	◆	The IWG determined no or minimal risk. Organizations should perform a risk assessment.
Vendor & Service Bureau Support	✓	Vendors and service bureaus that do not properly update systems related to liquidity and collateral management provided to customer organizations could cause risk (e.g. financial, reputational) to those organizations.
Trading Venue	◆	The IWG determined no or minimal risk. Organizations should perform a risk assessment.
Risk & Compliance	✓	Risk (e.g. financial, reputational) and compliance issues may occur if liquidity and collateral management processes are not properly updated for T+2 settlement.
Customer Experience	✓	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	✓	Issues may occur across an organization's technology platforms if systems and data related to liquidity and collateral management are not comprehensively updated.
Opportunity to Leverage the EU's T+2 Experience	◆	The IWG determined no or minimal risk. Organizations should perform a risk assessment.

✓ Potential Impact ◆ Minimal Impact

To remediate liquidity and collateral management processes for T+2 settlement, organizations should consider the following activities:

6.3.2a Activities to Assess Liquidity and Collateral Management

Activities to Assess Liquidity and Collateral Management			
#	Implementation Steps	Organization Participants (Front, Middle, Back, IT, Vendor)	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+2 settlement will impact the collateral management process		
4	Determine if changes to collateral management systems are required due to shortened settlement cycle		

6.3.3. Securities Lending

Securities Lending

Review Securities Lending Processes and Procedures for T+2 Settlement

6.3.3a Review Securities Lending Processes and Procedures

Organizations should review existing securities lending policies and procedures for T+2 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 be more streamlined. An overview of the lifecycle of securities lending processes can be found below:

- Organizations should review existing securities lending agreements for reference to T+3.
- Decisions to loan or borrow securities should take the shortened settlement cycle into account.

- Stock borrow positions should be evaluated by organizations to reduce exposure to counterparty risk based on the shortened T+2 settlement.
- Securities lending recall processes should be reviewed by organizations and shortened for T+2 settlement.



- Delivery of collateral in the US will continue to occur virtually simultaneously to the receipt of securities (T+0).

- Organizations should review the buy-in process, which is one day shorter due to the shortened T+2 settlement.

6.3.3a Dimensions to Review Securities Lending Processes and Procedures

Dimensions to Review Securities Lending Processes and Procedures		
Dimension	Impacted?	Summary of Risk
Business Model	◆	The IWG determined no or minimal risk. Organizations should perform a risk assessment.
Product Type	◆	The IWG determined no or minimal risk. Organizations should perform a risk assessment.
Vendor & Service Bureau Support	✓	Vendors and service bureaus that do not properly update systems and data related to securities lending provided to their customer organizations could cause risk (e.g. operational, financial, and reputational) to those organizations.
Trading Venue	◆	The IWG determined no or minimal risk. Organizations should perform a risk assessment.
Risk & Compliance	✓	Risk (e.g. operational, financial, and reputational) and compliance issues may occur if securities lending processes is not properly updated for T+2 settlement.
Customer Experience	✓	Security lending processing issues may impact external clients and cause risk (e.g. financial, reputational).
Technology Enablers	✓	Issues may occur across an organization's technology platforms if securities lending processes are not comprehensively updated.
Opportunity to Leverage the EU's T+2 Experience	◆	The IWG determined no or minimal risk. Organizations should perform a risk assessment.

✓ Potential Impact ◆ Minimal Impact

6.3.3a Activities to Review Securities Lending Processes and Procedures

Activities to Review Securities Lending Processes and Procedures			
#	Implementation Steps	Organization Participants (Front, Middle, Back, IT, Vendor)	Systems
1	Review policies and procedures related to securities lending		
2	Update policies and procedures for securities lending as appropriate		

6.3.4. Dividend Reinvestment Plans

Dividend Reinvestment Plans
Assess Processes Related to Dividend Reinvestment Plans for T+2 Settlement

6.3.4a Assess Dividend Reinvestment Plans

Organizations need to assess processes related to dividend reinvestment plans for T+2 settlement, and review program documentation for references to T+3.

As the industry transitions to a T+2 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+3, 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.

The dimensions detailed below should be considered for DRIP assessment:

6.3.4a Dimensions to Assess Processes Related to Dividend Reinvestment Plans

Dimensions to Assess Processes Related to Dividend Reinvestment Plans		
Dimension	Impacted?	Summary of Risk
Business Model	◆	The IWG determined no or minimal risk. Organizations should perform a risk assessment.
Product Type	◆	The IWG determined no or minimal risk. Organizations should perform a risk assessment.
Vendor & Service Bureau Support	✓	Vendors and service bureaus that do not properly update dividend reinvestment plan data provided to their customer organizations could cause risk (e.g. financial, reputational) to those organizations.
Trading Venue	◆	The IWG determined no or minimal risk. Organizations should perform a risk assessment.
Risk & Compliance	✓	Risk (e.g. financial, reputational) and compliance issues related to dividend reinvestment plans may occur if the processes are not updated to reflect the shortened settlement cycle.
Customer Experience	✓	Inaccurate dividend reinvestment plan information may cause upstream and downstream implications for internal functions (e.g. income processing) and impact external clients (e.g. client statements, financial loss).
Technology Enablers	✓	Issues may occur across an organization's technology platforms if systems and data related to dividend reinvestment plans are not comprehensively updated.
Opportunity to Leverage the EU's T+2 Experience	◆	The IWG determined no or minimal risk. Organizations should perform a risk assessment.

✓ Potential Impact ◆ Minimal Impact

To assess DRIPs for T+2 settlement, organizations should consider the following activities:

6.3.4a Activities to Assess Processes Related to Dividend Reinvestment Plans

Activities to Assess Processes Related to Dividend Reinvestment Plans			
#	Implementation Steps	Organization Participants (Front, Middle, Back, IT, Vendor)	Systems
1	Determine required changes for DRIPs due to T+2 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+2 settlement		
5	Schedule and execute changes prior to T+2 settlement		
6	Advise plan participants of changes to DRIP functionality		

6.3.5. Options Exercise and Assignment

Options Exercise and Assignment Assess Options Exercise and Assignment Processes for T+2 Settlement

6.3.5a Assess Options Exercise and Assignment Processes

Organizations should assess their options exercise and assignment processes for T+2 settlement. While it is anticipated that the settlement cycle of options trades will not be impacted by the industry's move to T+2, the exercise and assignment of options is expected to move to T+2 to align with the settlement of the underlying securities. The dimensions detailed below should be considered for options exercise and assignment process assessment:

6.3.5a Dimensions to Assess Options Exercise and Assignment Processes

Dimensions to Assess Options Exercise and Assignment Processes		
Dimension	Impacted?	Summary of Risk
Business Model	◆	The IWG determined no or minimal risk. Organizations should perform a risk assessment.
Product Type	✓	Underlying securities could experience operational and settlement issues if settlement dates are not adjusted for T+2.
Vendor & Service Bureau Support	✓	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	✓	Options exercise and assignment processes not properly updated for T+2 settlement could cause out of balances with the Options Clearing Corporation (OCC).
Risk & Compliance	✓	Risk (e.g. operational, financial, and reputational) and compliance issues may occur if options exercise and assignment processes are not properly configured for T+2.
Customer Experience	✓	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	✓	Issues may occur across an organization's technology platforms if options exercise and assignment processes and options settlement data configuration are not comprehensively updated.
Opportunity to Leverage the EU's T+2 Experience	◆	The IWG determined no or minimal risk. Organizations should perform a risk assessment.

✓ Potential Impact ◆ Minimal Impact

To assess options exercise and assignment processes for T+2 settlement, organizations should consider the following activities:

6.3.5a 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)	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		

6.3.6. Additional Recommendations and Considerations

Additional Recommendations and Considerations

Review Additional Recommendations and Considerations for T+2 Settlement

During the development of the Playbook, the IWG highlighted additional issues that may be impacted by the move to T+2. Organizations should review the following additional recommendations and considerations:

Trade Exception Handling

- Organizations should review trade exception handling, including cancels, corrections, don't knows (DKs), and "as-of" transactions, especially around migration.

Failed Trades Management

- Fail to deliver securities (seller) and fail to receive (buyer) was discussed by the IWG. However, no remedial activities for T+2 were identified. In advance of T+2 organizations should assess their current practices to identify and streamline potential areas of weakness to prepare sufficiently to operate in a shortened settlement cycle.

Delivery Orders

- The delivery order (DO) process will not be impacted by the industry's move to T+2.

Margin Requirements

- Organizations should consider assessing policies and procedures around margin to determine if there are house threshold impacts and if changes are warranted. Necessary changes should be communicated to internal and external stakeholders.

Swift Messaging

- Some organizations may use SWIFT messaging as their means to communicate internally and to the street regarding trade related processes. SWIFT acknowledged that there are no field changes required to support a move to T+2 settlement.

Secondary Insurance for Municipal Bonds

- The IWG does not expect that the process of obtaining secondary insurance for municipal bonds will not be impacted by the transition to T+2. The current process of obtaining secondary insurance requires extended settlement and is considered a normal convention for this process. Therefore, the IWG concludes that organizations will not need to revisit or modify the process of obtaining secondary insurance for municipal bonds.

Initial Public Offering (IPO)

- The New York Stock Exchange (NYSE) and the National Association of Securities Dealers Automated Quotation Stock Market (NASDAQ) should consider an agreement to make coordinated rule filings to make IPOs fully Direct Registration System (DRS) eligible and in statement-only format to help reduce physical certificates during the IPO process. A separate industry initiative is reviewing primary market distributions as it relates to physical securities.

Dematerialization

- Dematerialization will not have an impact on market participant remedial activities required for T+2 implementation. On-going industry initiatives continue the dematerialization effort for securities.

Automated Customer Account Transfer Service (ACATS)

- The ACATS system will not have an impact on market participant remedial activities required for T+2 implementation.

7. Regulatory Changes

7.1. Introduction

On September 16, 2015, SEC Chair White sent a letter to SIFMA and ICI indicating her support for the move to T+2. The Chair's letter responded to a June 18, 2015 letter from SIFMA and ICI to Chair White, describing impacted rules and requesting regulatory certainty with adequate lead time to implement the necessary operational and technological changes. The impacted rules described in the SIFMA and ICI letter included rules that reference a three day settlement cycle and rules that are keyed to settlement date and require pre-settlement actions, as detailed below⁴⁷.

Chair White's response to the SIFMA and ICI letter requested that the industry continue to pursue migration to the shortened settlement cycle and provide the SEC staff with a "detailed implementation schedule, including interim milestones and dependencies, by December 18, 2015." Further, Chair White indicated that she had directed SEC staff to work closely with impacted SROs to develop detailed schedules to consider the necessary rule amendments for a move to a shorter settlement cycle⁴⁸.

This work is underway, with impacted SROs scheduled to publish rule change packages for public comment throughout late 2015 and 2016. For example, on November 10, 2015, the Municipal Securities Rulemaking Board (MSRB) published its request for comment for shortening the settlement cycle for rules G-12 and G-15. The comment period closed on December 10, 2015. On December 15, 2015, the Financial Industry Regulatory Authority (FINRA) board of directors authorized FINRA to take actions necessary to support industry initiatives to shorten the settlement cycle, in concert and conformity with the rule changes and implementation cycle adopted by the SEC, other self-regulatory organizations, and market participants. This includes the publication of a FINRA Regulatory Notice seeking comment on the proposed rule changes and making the necessary filings with the SEC. The ISC is anticipating additional notification of proposed rule changes from regulators (e.g. OCC, Federal Deposit Insurance Corporation (FDIC)) and SROs (e.g. NSCC, DTC, NYSE, and NASDAQ) and submission to the appropriate regulatory bodies for approval.

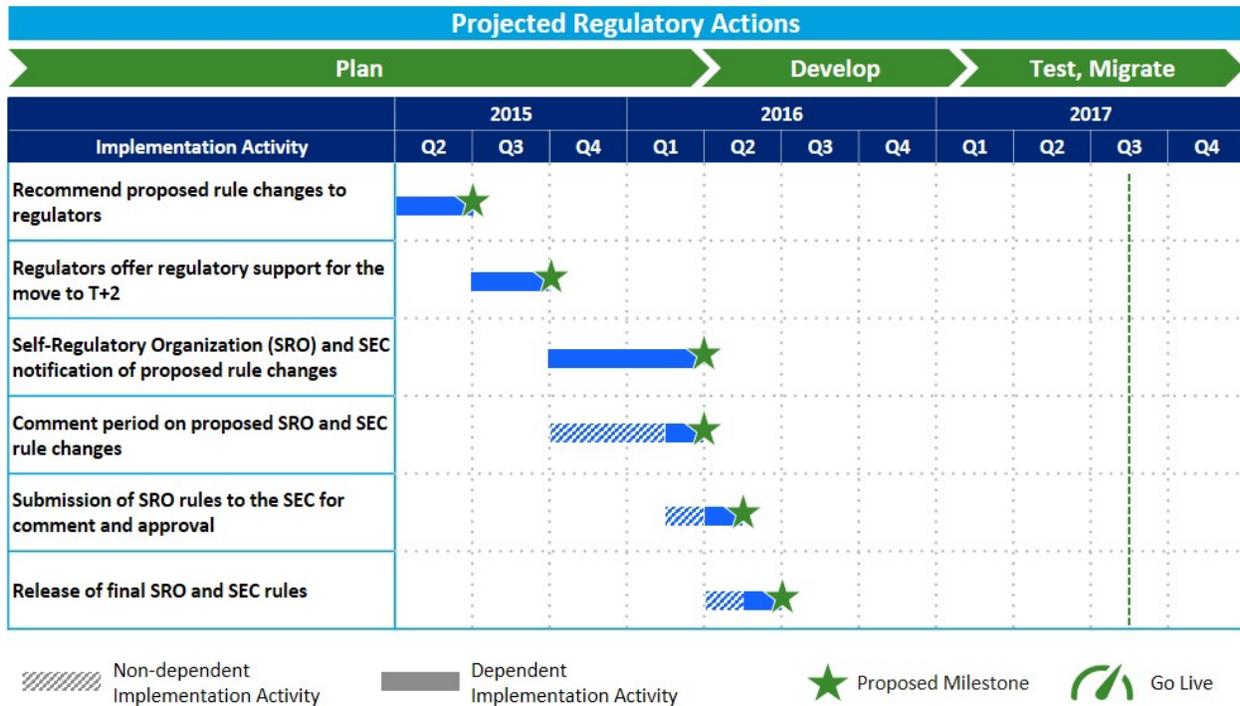
The SEC also has a direct role to play in the move to a shorter settlement cycle through updating Rule 15c6-1(a) to shorten the settlement cycle from no later than three days, to no later than two days. Coordinated regulatory support, along with the in-depth preparation of market participants, will ensure a carefully executed migration without market disruptions or harmful impacts to investors.

⁴⁷ SIFMA and ICI, Shortened Settlement Cycle – Regulatory Initiatives Letter to SEC Chair White, June 18, 2015

⁴⁸ SEC Chair White, Shortened Settlement Cycle Letter to SIFMA and ICI, September 16, 2015

7.2. Timeline and Milestones

The following timeline illustrates the projected regulatory change activities and milestones necessary to meet the Q3 2017 T+2 implementation:



7.3. Remedial Activities

7.3.1. Regulatory Changes

Regulatory Changes
Assess Rule Changes and Regulatory Reporting for T+2 Settlement

7.3.1a Assess Rule Changes and Regulatory Reporting

Organizations need to assess rule changes and regulatory reporting for T+2 settlement. The dimensions detailed below should be considered for regulatory assessment:

7.3.1a Dimensions to Assess Rule Changes and Regulatory Reporting

Dimensions to Assess Rule Changes and Regulatory Reporting		
Dimension	Impacted?	Summary of Risk
Business Model	◆	The IWG determined no or minimal risk. Organizations should perform a risk assessment.
Product Type	✓	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	✓	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	◆	The IWG determined no or minimal risk. Organizations should perform a risk assessment.
Risk & Compliance	✓	Risk (e.g. operational, financial, and reputational) and compliance issues may occur if rule changes are not properly applied for T+2 settlement.
Customer Experience	✓	Incorrectly applied rule changes may impact external clients (e.g. failed trades) and cause risk (e.g. operational, financial, and reputational).
Technology Enablers	✓	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).
Opportunity to Leverage the EU's T+2 Experience	◆	The IWG determined no or minimal risk. Organizations should perform a risk assessment.

✓ Potential Impact ◆ Minimal Impact

The following lists contain the rules cited in the letter submitted by SIFMA and ICI to the SEC on June 18, 2015 that are expected to change for T+2 implementation⁴⁹:

Rules that Specifically Reference T+3	
Regulation	Description
SEC Rule 15c6-1(a)	(a) Except as provided in paragraphs (b), (c), and (d) of this section, a broker or dealer shall not effect or enter into a contract for the purchase or sale of a security (other than an exempted security, government security, municipal security, commercial paper, bankers' acceptances, or commercial bills) that provides for 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.
MSRB Rule G-12(b)(ii)(B)	(B) for "regular way" transactions, the standard settlement date for securities transactions in the US, as defined in paragraph (a) of SEC Rule 15c6-1 (17 CFR 240.15c6-1(a));
MSRB Rule G-15(b)(ii)(B)	(B) for "regular way" transactions, the standard settlement date for securities transactions in the US, as defined in paragraph (a) of SEC Rule 15c6-1 (17 CFR 240.15c6-1(a));
FINRA Rule 11320(b)	(b) "Regular Way" In connection with a transaction "regular way," delivery shall be made at the office of the purchaser on, but not before, the standard settlement date for securities transactions in the US, as defined in paragraph (a) of SEC Rule 15c6-1 (17 CFR 240.15c6-1(a)).
NYSE Rule 64(a)	(a) (i) Except as provided in (ii) below, bids and offers in securities admitted to dealings on an "issued" basis, shall be made as "regular way," i.e., for delivery on the standard settlement date for securities transactions in the US, as defined in paragraph (a) of SEC Rule 15c6-1 (17 CFR 240.15c6-1(a)). In addition, the Exchange may allow for any such additional settlement instructions and periods as the Exchange may from time to time determine. (See Rule 14 (Non-Regular Way Settlement Instructions for Orders) for additional permissible settlement instructions.)
NASDAQ Rule 11320(b)	(b) "Regular Way" In connection with a transaction "regular way," delivery shall be made at the office of the purchaser on, but not before, the standard settlement date for securities transactions in the US, as defined in paragraph (a) of SEC Rule 15c6-1 (17 CFR 240.15c6-1(a)).
OCC Regulations, Part 12.9(a)	(a) A national bank shall not effect or enter into a contract for the purchase or sale of a security (other than an exempted security as defined in 15 U.S.C. 78c(a)(12), government security, municipal security, commercial paper, bankers' acceptances, or commercial bills) that provides for payment of funds and delivery of securities later than the standard settlement date for securities transactions in the US, as defined in paragraph (a) of SEC Rule 15c6-1 (17 CFR 240.15c6-1(a)), unless otherwise expressly agreed to by the parties at the time of the transaction.
FDIC Rules and Regulations, Part 344.7(a)	(a) A bank shall not effect or enter into a contract for the purchase or sale of a security (other than an exempted security as defined in 15 U.S.C. 78c(a)(12), government security, municipal security, commercial paper, bankers' acceptances, or commercial bills) that provides for payment of funds and delivery of securities later than the standard settlement date for securities transactions in the US, as defined in paragraph (a) of SEC Rule 15c6-1 (17 CFR 240.15c6-1(a)), unless otherwise expressly agreed to by the parties at the time of the transaction.

⁴⁹ SIFMA and ICI, Shortened Settlement Cycle – Regulatory Initiatives Letter to SEC Chair White, June 18, 2015

Rules that are Keyed to Settlement Date and Require Pre-Settlement Actions	
Regulation	Description
FINRA Rule 11860(a)(4)	(4) The member shall have obtained an agreement from the customer that the customer will furnish its agent instructions with respect to the receipt or delivery of the securities involved in the transaction promptly upon receipt by the customer of each confirmation, or the relevant data as to each execution, relating to such order (even though such execution represents the purchase or sale of only a part of the order), and that in any event the customer will assure that such instructions are delivered to its agent no later than: the first business day preceding the standard settlement date for securities transactions in the US, as defined in paragraph (a) of SEC Rule 15c6-1 (17 CFR 240.15c6-1(a)).
FINRA Rule 11140(b)(1)	(1) In respect to cash dividends or distributions, or stock dividends, and the issuance or distribution of warrants, which are less than 25% of the value of the subject security, if the definitive information is received sufficiently in advance of the record date, the date designated as the "ex-dividend date" shall be the first business day preceding the record date if the record date falls on a business day, or the second business day preceding the record date if the record date falls on a day designated by the SEC as a non-delivery date.
NASDAQ Rule 11140(b)(1)	(b) Normal Ex-Dividend, Ex-Warrants Dates (1) In respect to cash dividends or distributions, or stock dividends, and the issuance or distribution of warrants, which are less than 25% of the value of the subject security, if the definitive information is received sufficiently in advance of the record date, the date designated as the "ex-dividend date" shall be the first business day preceding the record date if the record date falls on a business day, or the second business day preceding the record date if the record date falls on a day designated by Nasdaq Regulation as a non-delivery date.
NYSE Rule 235	Transactions in stocks, except those made for "cash" as prescribed in Rule 14, shall be ex-dividend or ex-rights on the first business day preceding the record date fixed by the corporation or the date of the closing of transfer books. Should such record date or such closing of transfer books occur upon a day other than a business day, this Rule shall apply for the second preceding business day....
NYSE Rule 236	Transactions in securities which have subscription warrants attached (except those made for "cash"), as prescribed in Rule 14, shall be ex-warrants on the first business day preceding the date of expiration of the warrants, except that when the date of expiration occurs on a day other than a business day, said transactions shall be ex-warrants on the second business day preceding said date of expiration....
FINRA Rule 11150(a)	(a) Normal Ex-Interest Dates... (1) On the first business day preceding the record date if the record date falls on a business day. (2) On the second business day preceding the record date if the record date falls on a day other than a business day....
NASDAQ Rule 11150(a)	(a) Normal Ex-Interest Dates... (1) On the first business day preceding the record date if the record date falls on a business day. (2) On the second business day preceding the record date if the record date falls on a day other than a business day....

The following list contains additional rules cited by the MSRB, in a regulatory notice published on November 10, 2015, that are expected to change for T+2 implementation⁵⁰:

Additional MSRB Rules	
Regulation	Description
MSRB G-12(b)(ii)(C)	(C) for "when, as and if issued" transactions, a date agreed upon by both parties, which date: (1) with respect to transactions required to be compared in an automated comparison system under rule G-12(f)(i), shall not be earlier than two business days after notification of initial settlement date for the issue is provided to the registered clearing agency by the managing underwriter for the issue as required by rule G-34(a)(ii)(D)(2); and (2) with respect to transactions not eligible for automated comparison, shall not be earlier than the second business day following the date that the confirmation indicating the final settlement date is sent;
MSRB G-12(b)(ii)(D)	(D) for all other transactions, a date agreed upon by both parties, provided, however, that a broker, dealer or municipal securities dealer shall not effect or enter into a transaction for the purchase or sale of a municipal security (other than a "when, as and if issued" transaction) that provides for payment of funds and delivery of securities later than the second business day after the date of the transaction unless expressly agreed to by the parties, at the time of the transaction.
MSRB G-15(b)(ii)(C)	(C) for all other transactions, a date agreed upon by both parties; provided, however, that a broker, dealer or municipal securities dealer shall not effect or enter into a transaction for the purchase or sale of a municipal security (other than a "when, as and if issued" transaction) that provides for payment of funds and delivery of securities later than the second business day after the date of the transaction unless expressly agreed to by the parties, at the time of the transaction.

⁵⁰ MSRB, "Regulatory Notice: Request for Comment on Changes to MSRB Rules to Facilitate Shortening the Securities Settlement Cycle," November 10, 2015

The NSCC and DTC have initiated discussions with their regulatory supervisors regarding regulatory filings that may require changes to their respective rules. The lists below are being provided in response to this request and are based on a preliminary analysis of those rules⁵¹:

NSCC Rules	
Regulation	Description
Rule 52 (Mutual Fund Services)	Subsection 17 (Underwritings/Tender Offers) to update time frame for deliverables to NSCC to account for shorter settlement time frame.
Procedure II (Trade Comparison and Recording Service)	Subsection C, 1. (p) (Debt Securities – Trade Comparison) to update references to settlement time frame of transactions in debt securities. Subsection D, 2. (A), (2) (When-Issued and When-Distributed Securities – Debt) to update references to settlement time frame of transactions in debt securities. Subsection F, 2. (Index Receipts– Creation/Redemption Input) to update references to settlement time frame for index receipts processed at NSCC. Subsection G (Reports and Output) to update references to settlement time frame in describing content of reports.
Procedure III (Trade Recording Service– Interface with Qualified Clearing Agencies)	Subsection B (Settlement of Option Exercises and Assignments (“E&A”)) may require update to ensure correct time frame referenced for settlement of option exercises and assignments.
Procedure V (Balance Order Accounting Operation)	Subsection C (Net Balance Orders) to update reference to date of comparison of Balance Order securities, and to update reference to time frame for delivery of the Consolidated Trade Summary report.
Procedure VI (Foreign Security Accounting Operation)	Subsection B (Trade-for-Trade Foreign Security Receive and Deliver Instructions) to update reference to settlement time frame.
Procedure VII (CNS Accounting Operation)	Subsection B (Consolidated Trade Summary) to update reference to settlement time frame of trades reported on Consolidated Trade Summary report.
Addendum K (Interpretation re: Application of Clearing Fund)	Addendum K (Interpretation re: Application of Clearing Fund) to update reference to settlement period in connection with the timing of NSCC’s trade guarantee.
Procedure II (Trade Comparison and Recording Service)	Subsection C, 1. (p) (Debt Securities – Trade Comparison) to update reference to settlement time frame of transactions in debt securities.
Procedure XVI (ID Net Service)	To update reference to settlement time frame in description of timing of processing through ID Net Service.
Procedure VII (CNS Accounting Operation)	Subsection H, 4. (Miscellaneous CNS Activity – Corporate Reorganizations – Voluntary Reorganizations) to update reference to time frame for processing corporate actions to reflect the shortened settlement cycle. Subsection K (Instruments with Exercise Privileges) to update timeframe for potential liability notification to reflect shortened settlement cycle.
Addendum A (Fee Structure)	Reference to T+3 as “regular way settlement” to be updated. Updates to NSCC fees may be considered in connection with shortened settlement cycle.
Rule 4A (Supplemental Liquidity Deposits)	Subsection 2 (Defined Terms) to update calculation of “Options Expiration Activity Period,” which is currently tied to Settlement Date.
Procedure XIII (Definitions)	To update definition of SIAC (Securities Industry Automation Corporation), which refers to T+3 as Settlement Day.
Procedure XV (Clearing Fund Formula and Other Matters)	Subsections (I)(A)(1)(g) and (I)(A)(2)(e) to update definition of “Specified Activity Charge”, which refers to T+3 settling trades.

⁵¹ DTCC, “Preliminary Mapping of Key Findings from Shortened Settlement Cycle White Paper to the Rules and Procedures of The Depository Trust Company (“DTC”) and National Securities Clearing Corporation (“NSCC”),” August 18, 2016.

DTC Rules	
Regulation	Description
Settlement Service Guide	ID Net section to update reference to settlement time frames.
Distributions Service Guide	Interim Accounting section to be updated. Stock Distributions section to update references to timeframes.
DTC Fee Guide	Updates to DTC fees may be considered in connection with shortened settlement cycle.

FINRA and NASD Rules

In Q4 2015, a preliminary list of FINRA and NASD rules was submitted to FINRA’s Board for approval. The 26 rules identified below are expected to change for T+2 and will be published in Q1 2016⁵²:

FINRA Rules	
Regulation	Description
FINRA/NASD Rules Keyed to T+3 Settlement Cycle	
NASD 2830 2800	Special Products
FINRA 11140(b)(1) 11100	Scope of uniform practice code
FINRA 11150(a) 11100.	Scope of uniform practice code
FINRA 11210(c) 11200	Comparisons or confirmations and “Don’t Know Notices”
FINRA 11210(d) 11200	Comparisons or confirmations and “Don’t Know Notices”
FINRA 11320(b) 11300	Delivery of Securities
FINRA 11320(c) 11300	Delivery of Securities
FINRA 11620(a) 11600	Delivery of bonds and other evidences of indebtedness
FINRA 11860(a)(4) 11800	Close-out- procedures
FINRA Rules potentially impacted by the move to the T+2 Settlement Cycle	
FINRA 2232	Customer Confirmations
FINRA 4210	Margin Requirements
FINRA 5121	Public Offerings of Securities with Conflicts of Interest
FINRA 5131	New Issue Allocations and Distributions
FINRA 11100	Scope of Uniform Practice Code
FINRA 11130	When, As and If Issued/Distributed Contracts
FINRA 11120	Definitions
FINRA 11210.01	Uniform Comparison Form
FINRA 11360.01	Uniform Delivery Ticket Form
FINRA 1410	Acceptance of Draft
FINRA 11580	Transfer of Limited Partnership Securities
FINRA 11710.01	Uniform Reclamation Form
FINRA 11720	Irregular Delivery — Transfer Refused — Lost or Stolen Securities
FINRA 11810.03	Sample Buy-In Forms
FINRA 11840.01	Sample Letter of Indemnity
FINRA 11880	Settlement of Syndicate Accounts
FINRA 11892	Clearly Erroneous Transactions in Exchange-Listed Securities

⁵² FINRA, Shortened Settlement Cycle – Letter to Stephen I. Luparello, SEC Director of the Division of Trading and Markets, October 30, 2015

Additional Regulator and SRO Rule Changes

The ISC is anticipating additional notification of proposed rule changes from regulators (e.g. Office of the Comptroller of the Currency (OCC), Federal Deposit Insurance Corporation (FDIC)), and SROs (e.g. NSCC, DTC, FINRA, NYSE, and NASDAQ) and submission to the appropriate regulatory bodies for approval.

Rules Keyed to Settlement Date

Certain rules utilize settlement date for measurement purposes but do not impact the trade lifecycle prior to settlement. Nevertheless, if the settlement cycle is shortened by one day, it will operate to shorten these time frames because they are measured from settlement date. Examples of rules that are keyed to settlement date and do not require action before settlement includes the following:

Rules that are Keyed to Settlement Date and Do Not Require Action Before Settlement	
Regulation	Description
Federal Reserve Board Regulation T	Federal Reserve Board Regulation T requires a broker-dealer to cancel or otherwise liquidate a customer purchase if the customer has not paid for its cash purchases or posted margin within one “payment period” of the trade date. Regulation T defines “payment period” as the number of business days in the standard US securities settlement cycle under SEC Rule 15c6-1(a), plus two business days (i.e. T+5) ⁵³ . Accordingly, shortening standard settlement by one day would reduce the period of time in which customers have to make payments or post margin associated with their transactions, which may impact retail customers in particular, who are often less knowledgeable about these processes and more likely to make payment via a physical check.
Regulation SHO Rule 204	Regulation SHO Rule 204 requires that if an equity security has not been delivered to a registered clearing agency by the settlement date, the broker-dealer must close out the position by the beginning of regular trading hours the next day (i.e. T+4), in the case of a short sale, or the opening of trading three business days later (i.e. T+6), in the case of a long sale or a sale in connection with bona fide market making. ⁵⁴ Here the industry sees potential impacts on the securities lending markets, particularly with respect to recalling loans to settle transactions.
SEC Rule 15c3-3(m)	SEC Rule 15c3-3(m) requires that if a customer that sells a security long has not delivered the security within 10 business days after settlement date (currently T+13), the broker-dealer must close out the transaction. ⁵⁵ Because it relates to long sales, Rule 15c3-3(m) primarily comes into play for deliveries of physical securities, which are most likely to involve retail customers.
Letter of Free Funds (LOFFA)	According to Regulation T, Section 220.8 C (a), the executing broker dealer and custodian are required to verify that funds are available by T+5 for every non-exempt security trade with a principal amount in excess of \$1,000. The Letter of Free fund is the verification of funds that is sent to the custodial broker of the account by the executing broker/dealer ⁵⁶ . Accordingly, shortening standard settlement would reduce the period of time by one day.

⁵³ Federal Reserve Board, Regulation T, 12 C.F.R. §§ 220.1, 220.4(c)(3) and 220.8(b)(i)

⁵⁴ Regulation SHO Rule 204 17 C.F.R. § 242.204(a)

⁵⁵ Note that extensions of time are available under SEC Rule 15c3-3(n) and applicable SRO rules (e.g. FINRA Rule 4230)

⁵⁶ LOFFA Interactive Group, “Letter of Free Funds Automation: A Case Study in Savings”

Each of the rule changes and other impacted time frames should be assessed, and changes should be applied by organizations as appropriate. Dependent on the application of the rule, changes may be required to systems, processes, and documentation (internal and external).

To assess rule changes regulatory reporting processes and procedures for T+2 settlement, organizations should consider the following activities:

7.3.1a Activities to Assess Rule Changes and Regulatory Reporting

Activities to Assess Rule Changes and Regulatory Reporting			
#	Implementation Steps	Organization Participants (Front, Middle, Back, IT, Vendor)	Systems
1	Assess rule changes for impact (e.g. compliance reporting, system changes)		
2	Ensure that systems and reference data impacted by rule changes are included in inventories for configuration		
3	Determine changes required to processes for rule changes		
4	Coordinate changes with internal and external		
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		

8. Testing and Migration

8.1. Introduction

Organizations will need to develop and execute test plans that align with the T+2 migration date in Q3 2017. Testing will need to be performed iteratively throughout implementation to achieve readiness for the migration to T+2. Testing should include internal system testing, vendor and service bureau integration testing, and industry testing to be coordinated by DTCC.

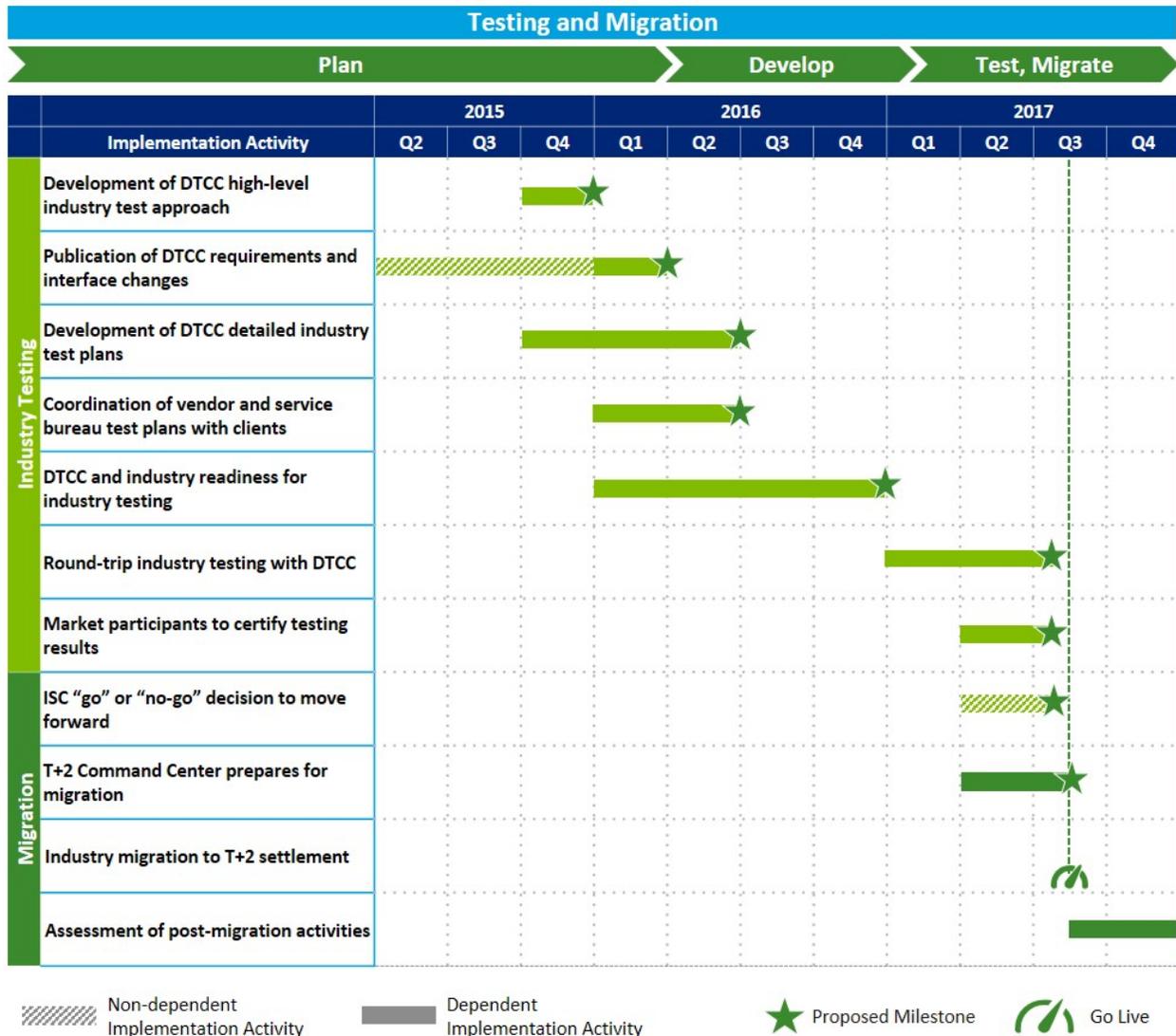
Organizations should develop test plans for the following areas:

- Testing of the changes implemented to meet requirements for T+2 settlement
- Regression testing to verify continuity of upstream or downstream functions
- Integration testing with vendors and service bureaus
- Participation in industry testing

Testing will need to be coordinated with other industry initiatives, such as testing for Regulation Systems Compliance and Integrity (Regulation SCI), DTCC's Consolidated Trade Summary system testing, and other pending or future industry changes (e.g. Consolidated Audit Trail).

8.2. Timeline and Milestones

The following timeline shows internal testing, industry testing, and migration activities and milestones necessary to meet the Q3 2017 T+2 implementation:



8.3. Remedial Activities

8.3.1. Testing

Testing

Develop Internal and Industry Test Plans for T+2 Settlement

8.3.1a Develop Internal and Industry Test Plans

Internal Testing

Individual organizations will need to develop test plans for both internal and industry testing. 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. The IWG suggested reviewing settlement volumes from 2008 and from existing industry double settlement dates as a baseline estimate.

Internal testing should occur in 2016 for individual organizations as they prepare for T+2 implementation. Testing should include people, processes, 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)

Industry Testing

DTCC and the industry will plan and coordinate industry testing. A preliminary test approach was developed by DTCC in Q4 2015 and is expected to be shared with the industry in Q1 2016. DTCC plans to provide a detailed test plan in Q2 2016. DTCC plans to offer a T+2 test environment for an estimated six-month period (Q2-Q3 2017) to allow for participants 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 will develop a certification process for DTC and NSCC participants to certify that they are ready for the migration to T+2. During Q3 2016, DTCC will be releasing certification requirements. The ISC will assess the DTCC participant certifications while determining the “go” or “no-go” decision for migration to T+2. 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 will include:

- Timelines
- Environments
- Utilities
 - Exchanges to allow full end-to-end testing
 - OMGEO 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
 - Other participating matching, clearing, and affirmation utilities
- 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+2 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 certification requirements
 - Industry testing will not be mandated; however, prior to the T+2 migration date, DTCC participants, including those that opt out of testing, will be required to certify T+2 readiness.
 - DTCC will require vendors and service bureaus to certify T+2 readiness independently.
 - DTCC participants utilizing vendors and service bureaus will need to provide a separate certification for their own T+2 readiness.
 - DTCC will not require buy side organizations to certify T+2 readiness. However, custodians, which are part of the buy side transaction lifecycle will be required to certify T+2 readiness as direct DTCC participants

Post-migration, the test environments and testing of further changes to systems will continue to allow organizations to assess T+2 compliance. As the migration date approaches DTCC and the industry will set up a monitoring process for the production environment to assess the functioning of systems and participants in T+2.

Organizations need to develop internal, external, and industry test plans for T+2 settlement. The dimensions detailed below should be considered for test plan development:

8.3.1a Dimensions to Develop Test Plans

Dimensions to Develop Test Plans		
Dimension	Impacted?	Summary of Risk
Business Model	◆	The IWG determined no or minimal risk. Organizations should perform a risk assessment.
Product Type	✓	Trades involving various securities could process incorrectly or fail if testing is not comprehensive across product types.
Vendor & Service Bureau Support	✓	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	✓	Test plans will need to be developed for each trading venue included in industry testing.
Risk & Compliance	✓	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+2 settlement.
Customer Experience	✓	Insufficient testing may cause upstream and downstream implications for internal functions and impact external customers.
Technology Enablers	✓	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.
Opportunity to Leverage the EU's T+2 Experience	◆	The IWG determined no or minimal risk. Organizations should perform a risk assessment.

✓ Potential Impact ◆ Minimal Impact

To develop test plans for T+2 settlement, organizations should consider the following activities:

8.3.1a Activities to Develop Test Plans

Activities to Develop Test Plans			
#	Implementation Steps	Organization Participants (Front, Middle, Back, IT, Vendor)	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	Organizations required to receive DTCC certification for sandbox testing		
10	Conduct post-migration testing activities		

8.3.2. Migration

Migration

Prepare for Migration to T+2 Settlement

8.3.2a Prepare for Migration to T+2

The ISC, with support from SIFMA, ICI, and DTCC, and in discussion with regulators and SROs, will develop a plan (e.g. “run book”) for the T+2 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+2 implementation process. Market participants will be selected by the ISC for an industry T+2 Command Center to manage industry communications and respond to potential issues arising from T+2 migration. The migration plan will include industry T+2 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+3 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 2Q 2016, the IWG will meet on a quarterly basis (through year end) and then on a monthly (beginning January 2017) through the migration to T+2.

8.3.2b Review Processes Related to Claiming Failed Deliveries, Recalling Securities, and Tracking Pending Trades Prior to Migration

Sub-requirement:⁵⁷ Organizations that trade around voluntary reorganization expiration dates must review their processes prior to moving to T+2 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+2. 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+2 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+2. 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.

⁵⁷ "Shortening the Settlement Cycle, the Move to T+2," June 2015

The below dimensions should be considered for reviewing processes related to claiming failed deliveries, recalling securities, and tracking pending trades prior to migration:

8.3.2b Dimensions to Review Processes Related to Claiming Failed Deliveries, Recalling Securities, and Tracking Pending Trades Prior to Migration

Dimensions to Review Processes Related to Claiming Failed Deliveries, Recalling Securities, and Tracking Pending Trades Prior to Migration		
Dimension	Impacted?	Summary of Risk
Business Model	◆	The IWG determined no or minimal risk. Organizations should perform a risk assessment.
Product Type	◆	The IWG determined no or minimal risk. Organizations should perform a risk assessment.
Vendor & Service Bureau Support	✓	Vendors and service bureaus that do not properly update processes related voluntary reorganization expiration dates provided to their customer organizations could cause risk (e.g. financial, reputational) to those organizations.
Trading Venue	◆	The IWG determined no or minimal risk. Organizations should perform a risk assessment.
Risk & Compliance	✓	Risk (e.g. financial, reputational) and compliance issues related to voluntary reorganization expiration dates may occur if processes are not modified to reflect the shortened settlement cycle.
Customer Experience	✓	Incorrect voluntary reorganization expiration date processing may cause upstream and downstream implications for internal functions (e.g. corporate actions processing) and impact external clients (e.g. missing elections).
Technology Enablers	✓	Issues may occur across an organization's technology platforms if processes related to voluntary reorganization expiration dates are not comprehensively updated.
Opportunity to Leverage the EU's T+2 Experience	◆	The IWG determined no or minimal risk. Organizations should perform a risk assessment.

✓ Potential Impact ◆ Minimal Impact

To review processes related to claiming failed deliveries, recalling securities, and tracking pending trades prior to migration, organizations should consider the following activities:

8.3.2b Activities to Review Processes Related to Claiming Failed Deliveries, Recalling Securities, and Tracking Pending Trades Prior to Migration

Activities to Review Processes Related to Claiming Failed Deliveries, Recalling Securities, and Tracking Pending Trades Prior to Migration			
#	Implementation Steps	Organization Participants (Front, Middle, Back, IT, Vendor)	Systems
1	Determine required changes to failed trades process for migration to T+2 settlement		
2	Determine required changes to securities lending recall process for migration to T+2 settlement		
3	Determine required changes to pending trade tracking process for migration to T+2 settlement		
4	Coordinate changes with internal and external stakeholders		
5	Develop test plan for trades around voluntary reorganization expiration dates for migration to T+2 settlement		
6	Schedule and execute changes prior to migration to T+2 settlement		

9. Path Forward

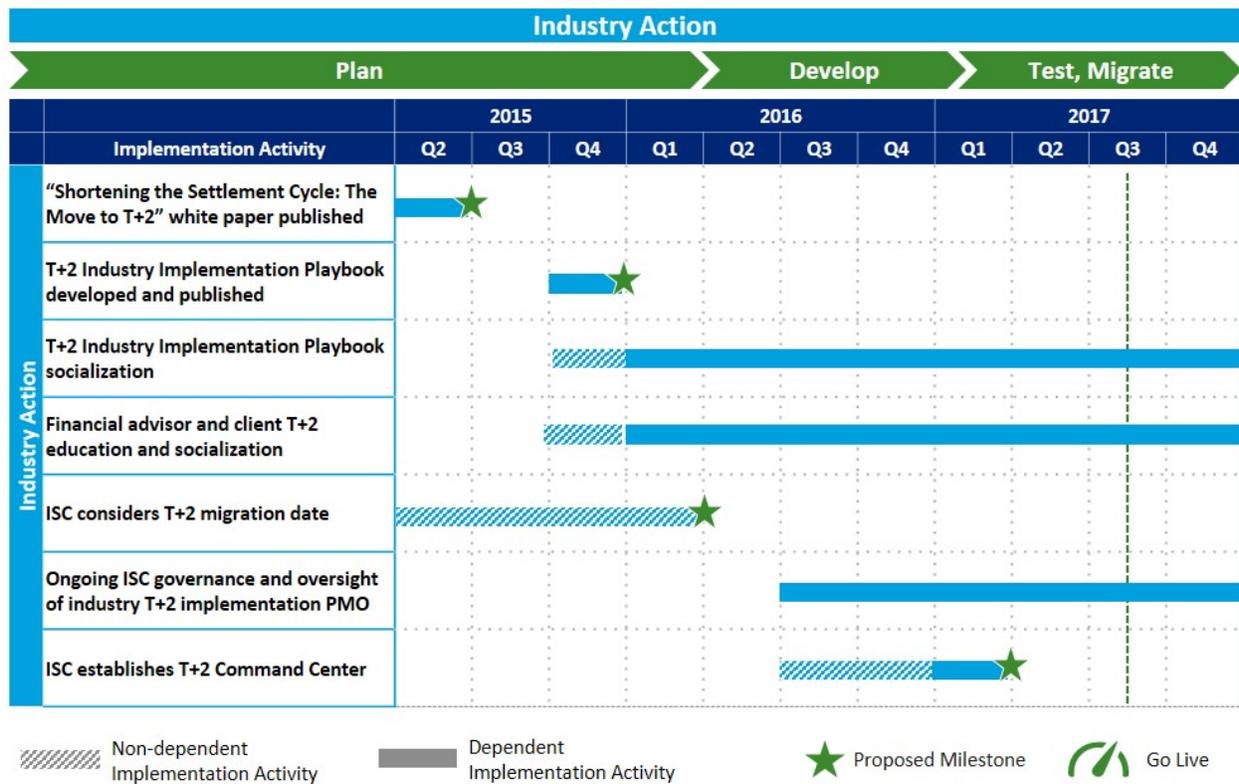
9.1. Introduction

The ISC responded to the SEC and delivered this Playbook to market participants on December 18, 2015. Needless to say, the journey to T+2 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+2 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+2 Command Center and protocols around migration
- Deciding “go” or “no-go” to migrate to T+2
- Providing leadership during the period leading up to the migration to T+2

9.2. Timeline and Milestones

The following timeline illustrates the industry actions and milestones necessary to meet the Q3 2017 T+2 implementation:



9.3. Next Step Activities

The list below highlights some of the path forward activities that should take place through the T+2 implementation:

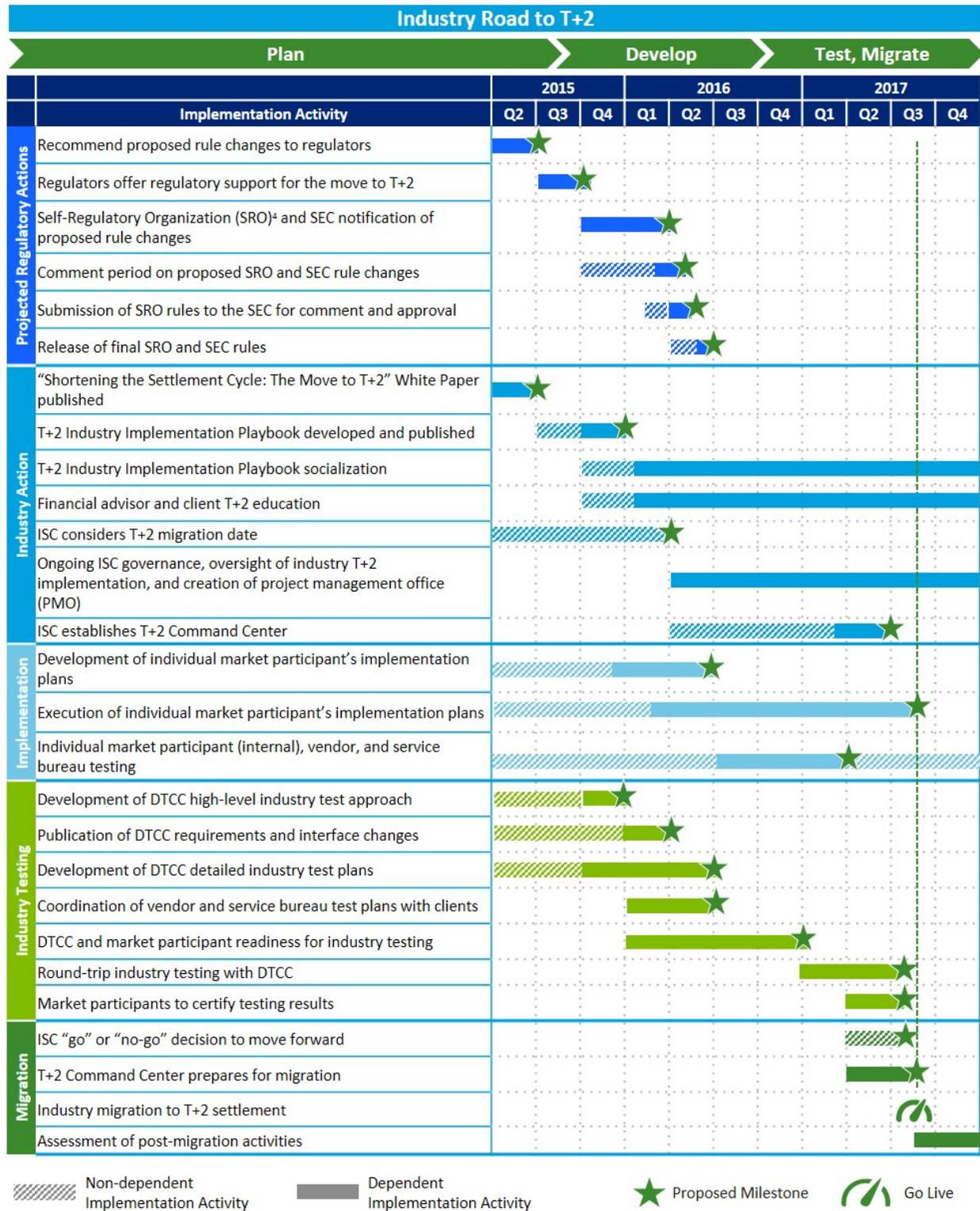
Path Forward		
#	Next Step	Scope of Step
1	Playbook socialization	<ul style="list-style-type: none"> • ISC to publish Playbook • Playbook education and socialization dates to be set for industry sessions
2	Regulatory updates	<ul style="list-style-type: none"> • ISC will continue to advocate timely regulatory rule changes
3	Migration date agreement	<ul style="list-style-type: none"> • ISC in discussion with regulators will agree on a migration date and advise markets participants
4	PMO establishment	<ul style="list-style-type: none"> • Establishment of an industry level PMO • Organization should also establish PMO to capture market participant announcements and track remedial activity progress
5	T+2 Command Center creation	<ul style="list-style-type: none"> • ISC will create a T+2 Command Center to assist with T+2 announcements and issue resolution
6	Proposed rule change notification and comment periods	<ul style="list-style-type: none"> • 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	<ul style="list-style-type: none"> • New issues or additional remedial 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	<ul style="list-style-type: none"> • Develop and execute internal test plans • Develop and execute external test plans • Industry testing and certification
9	Post-migration planning	<ul style="list-style-type: none"> • Industry metric planning • Industry operational check points

9.4. Summary

This document will 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+2 settlement cycle. It provides a high-level approach with recommended remedial activities and associated timelines that organizations can leverage internally and in discussions with customers and counterparties. When combined with the DTCC 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 T+2 migration date in Q3 2017.

10. Appendix

10.1. T+2 Industry Implementation Timeline & Milestones



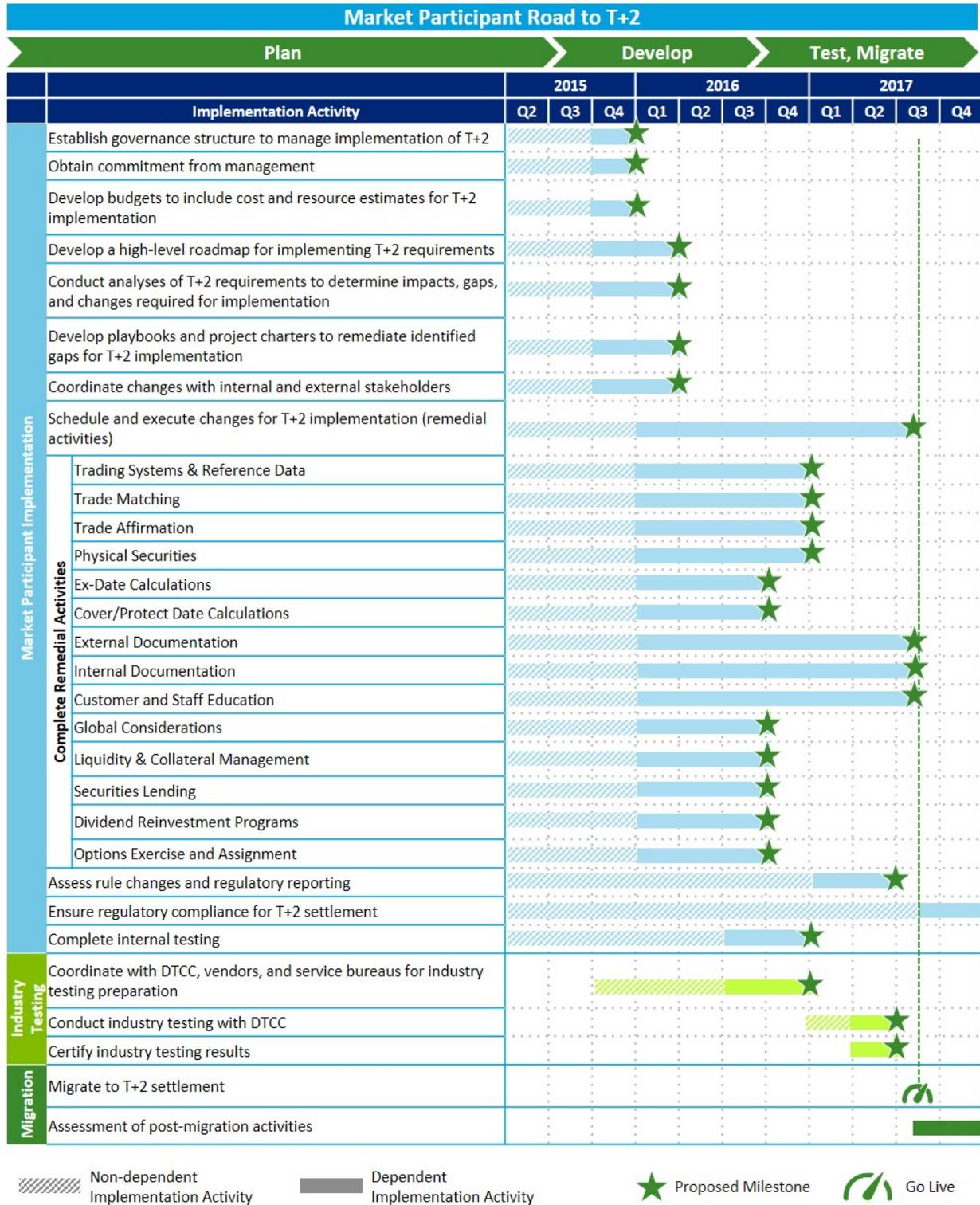
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10.2. T+2 Industry Implementation Activity Dependencies

	Implementation Activity	Dependency
Projected Regulatory Actions	Recommend proposed rule changes to regulators	Review of existing regulator and SRO Rule books
	Regulators offer regulatory support for the move to T+2	Dependent on SIFMA and ICI proposal of rule changes
	Self-Regulatory Organization (SRO) and SEC notification of proposed rule changes	Not dependent on previous implementation activity
	Comment period on proposed SRO and SEC rule changes	Dependent on delivery of rule changes and submission of SRO rules to the SEC for approval, the timeline could slip if the rule changes are delayed
	Submission of SRO rules to the SEC for comment and approval	Dependent on delivery of SRO rule changes to the SEC
	Release of final SRO and SEC rules	Dependent on results of comment period
Industry Action	“Shortening the Settlement Cycle: The Move to T+2” White Paper published	Creation of the IWG and review of industry systems and procedures
	T+2 Industry Implementation Playbook developed and published	Creation of the IWG and review of industry systems and procedures
	T+2 Industry Implementation Playbook socialization	Dependent upon successful publication of Playbook
	Financial advisor and client T+2 education	Not dependent on previous implementation activity
	ISC considers T+2 migration date	Dependent upon agreement of the ISC and the industry
	Ongoing ISC governance, oversight of industry T+2 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+2 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
Industry Testing	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 release of rule set for direction of market changes, but should not be dependent upon approval Dependent on the creation of industry testing group and review of industry systems and procedures
	Publication of DTCC requirements and interface changes	Dependent on DTCC defining final requirements and interface changes
	Development of DTCC detailed industry test plans	Dependent on the preliminary DTCC test plan review by market participants
	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
	Market participants to certify testing results	Dependent upon success or failure of DTCC industry testing
Migration	ISC “go” or “no-go” decision to move forward	Dependent on ISC review of testing results and overall readiness determination
	T+2 Command Center prepares for migration	Not dependent on previous implementation activity
	Industry migration to T+2 settlement	Dependent on the industry “go” or “no-go” decision
	Assessment of post-migration activities	Dependent on migration to T+2

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10.3. T+2 Market Participant Implementation Timeline & Milestones



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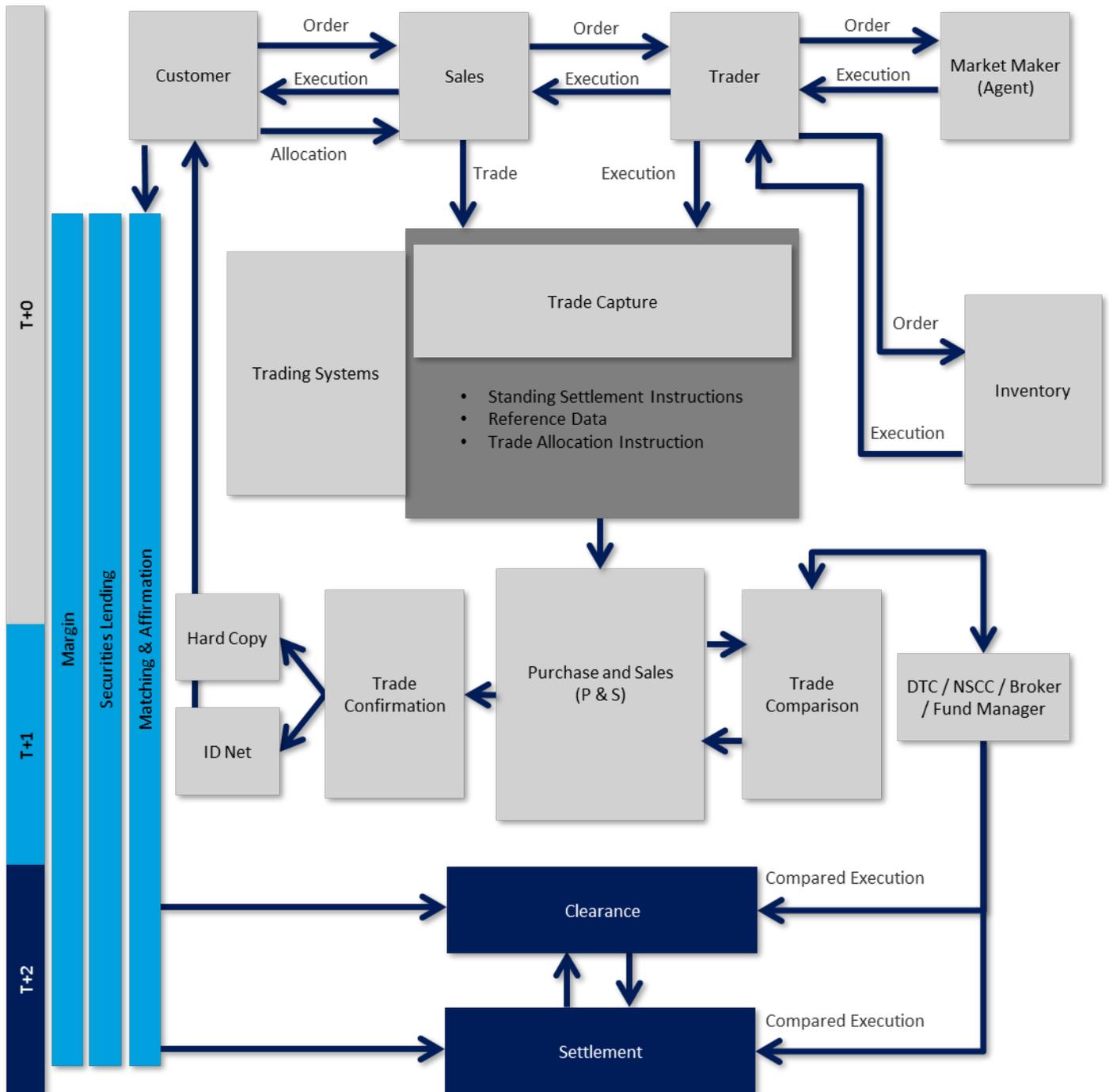
10.4. In-Scope Products

In-Scope Products	
American Depository Receipt (ADR)	Future
Asset-Backed Security (ABS) or Global ABS	Institutional Mutual Mortgage Insurance Fund (IMMI)
Auction Rate Preferred Stock	Limited Partnership
Bearer/Callable Zero Coupon Bond	Medium-Term Note
Bilateral Contracts	Municipal Amortized Issue
Certificate of Deposit	Municipal Auction Rate Note
Certificated Money Market Instrument	Municipal Bond
Closed End Fund	Municipal Derivative
Collateralized Mortgage Obligation (CMO)	Municipal Insured Custodial Receipt
Commodity Linked Note	Municipal Note
Common Stock	Municipal Option Call Right
Common Stock Real Estate Investment Trust (REIT)	Municipal Other Tax Exempt
Convertible Common Stock	Municipal Variable Mode Obligation (VMO)
Convertible Corporate Debt	Municipal VRDO
Convertible Preferred Stock	Mutual Fund
Corporate Auction Rate Note	Mutual Mortgage Insurance Fund (MMI) Banker's Acceptance Note
Corporate Bond or Global Corporate Bond	Non-CMO/ABS Amortizing Issue
Corporate Debenture	Preferred Stock
Corporate Debt Derivative	Preferred Stock REIT
Corporate Insured Custodial Receipt	Private Investment Public Equity (PIPE)
Corporate Other Tax Exempt	Right
Corporate Variable Rate Demand Obligation (VRDO)	Structured Product
Credit Linked Note	Tender Rate Preferred Stock
Debt Unit	Total Return Swaps
Depository Share	Unit Investment Trust (UIT)
Equity Derivative	Warrant
Equity Unit	When Issued
Exchange Traded Fund (ETF)	Zero Coupon Bond
Exchange Traded Product	Zero Coupon Denominated in Initial Principal Amount

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10.5. Trade Processing Lifecycle

The T+2 trade processing workflow captured below depicts a potential T+2 trade processing lifecycle and is intended to provide context for the remedial activities mentioned in the Playbook:



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10.6. Corporate Action Events

Voluntary Corporate Action Events			
Corporate Action Event	Payable Date	T+2 Impact (Yes/No)	Notes
Tenders	When Payment Received	Yes	Cover/Protect Date Implications
Tender Offer	When Payment Received	Yes	Cover/Protect Date Implications
Consent Tender	When Payment Received	Yes	Cover/Protect Date Implications
Odd Lot Tender	When Payment Received	Yes	Cover/Protect Date Implications
Voluntary Exchange	When Payment Received	Yes	Cover/Protect Date Implications
Merger Election	When Payment Received	Yes	Cover/Protect Date Implications
Bid Auction	When Payment Received	Yes	Cover/Protect Date Implications
Dutch Auction	When Payment Received	Yes	Cover/Protect Date Implications
Consent	N/A	Yes	Cover/Protect Date Implications
Conversion	When Payment Received	Yes	Cover/Protect Date Implications
Puts	When Payment Received	Yes	
Optional Put	When Payment Received	No	
Put with Rights - Partial	When Payment Received	No	
Put with Rights - Full	When Payment Received	No	
Put no Rights - Partial	When Payment Received	No	
Puts no Rights - Full	When Payment Received	No	
Rights Distribution	When Payment Received	No	
Rights Exercise	When Payment Received	Yes	Cover/Protect Date Implications
Warrants Exercise	When Payment Received	Yes	Cover/Protect Date Implications
Warrants Redemption	When Payment Received	Yes	Cover/Protect Date Implications

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Mandatory Corporate Action Events			
Corporate Action Event	Payable Date	T+2 Impact (Yes/No)	Notes
Mergers	Effective Date	Yes	Ex-Date Implications
Liquidations	Effective Date	Yes	Ex-Date Implications
Default		Yes	Ex-Date Implications
Distribution		Yes	Ex-Date Implications
Litigation		Yes	Ex-Date Implications
Interim Default Distribution		Yes	Ex-Date Implications
UIT Termination / Unsold Assets		Yes	Ex-Date Implications
Mandatory Unit Split	Effective Date	Yes	Ex-Date Implications
Reverse Split	Effective Date	Yes	Update Systems on Ex-Date
Exchange	Effective Date	Yes	Ex-Date Implications
Reclassification	Effective Date	Yes	Ex-Date Implications
Recapitalization	Effective Date	Yes	Ex-Date Implications
Name / CUSIP Change	Effective Date	Yes	Update Systems on Ex-Date
Bankruptcy	N/A		
Maturities	Maturity Date	No	
Calls	Redemption Date	No	
Part Call	Redemption Date	No	
Full Call	Redemption Date	No	
Pre-Refunded Part	Redemption Date	No	
Pre-Refunded Full	Redemption Date	No	
Defeased - Part	Redemption Date	No	
Defeased - Full	Redemption Date	No	
Escrow - Part	Redemption Date	No	
Escrow - Full	Redemption Date	No	
Equity - Part	Redemption Date	No	
Equity - Full	Redemption Date	No	

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Income Corporate Action Events			
Corporate Action Event	Payable Date	T+2 Impact (Yes/No)	Notes
Interest	Payable Date		
CD	Payable Date	Yes	
Corp Bond	Payable Date	Yes	
Corp CMO	Payable Date	Yes	
FHLMC	Payable Date	Yes	
FNMA	Payable Date	No	Out of Scope
GNMA	Payable Date	No	Out of Scope
Gov't CMO	Payable Date	Yes	
Gov't Agency	Payable Date	Yes	
Muni	Payable Date	Yes	
PR GNMA	Payable Date	Yes	
Treasury	Payable Date	Yes	
UIT	Payable Date	Yes	
Equity	Payable Date	Yes	
Return of Principal	Payable Date		
Corp Bond	Payable Date		
FHLMC	Payable Date		
FNMA	Payable Date	No	Out of Scope
GNMA	Payable Date	No	Out of Scope
Gov't CMO	Payable Date		
Gov't CMO	Payable Date		
Muni	Payable Date		
Treasury	Payable Date		
PR GNMA	Payable Date		
UIT	Payable Date		
Rights Distributions	Payable Date	Yes	Ex-Date Implications
Dividends	Payable Date	Yes	Ex-Date Implications
Interim Liquidations	Payable Date	Yes	Ex-Date Implications
Cash - Equity	Payable Date	Yes	Ex-Date Implications
Open End Mutual Fund	Payable Date	Yes	Ex-Date Implications
Optional Dividend	Payable Date	Yes	Ex-Date Implications
Stock Dividend	Payable Date	Yes	Update Systems on Ex-Date
Stock Split	Payable Date	Yes	Update Systems on Ex-Date
Return of Capital	Payable Date	Yes	Ex-Date Implications
Short Term Capital Gain	Payable Date	Yes	Ex-Date Implications
Long Term Capital Gain	Payable Date	Yes	Ex-Date Implications
Royalty	Payable Date	Yes	Ex-Date Implications
Spin Off	Payable Date	Yes	Update Systems on Ex-Date
Pay In Kind	Payable Date	Yes	Ex-Date Implications

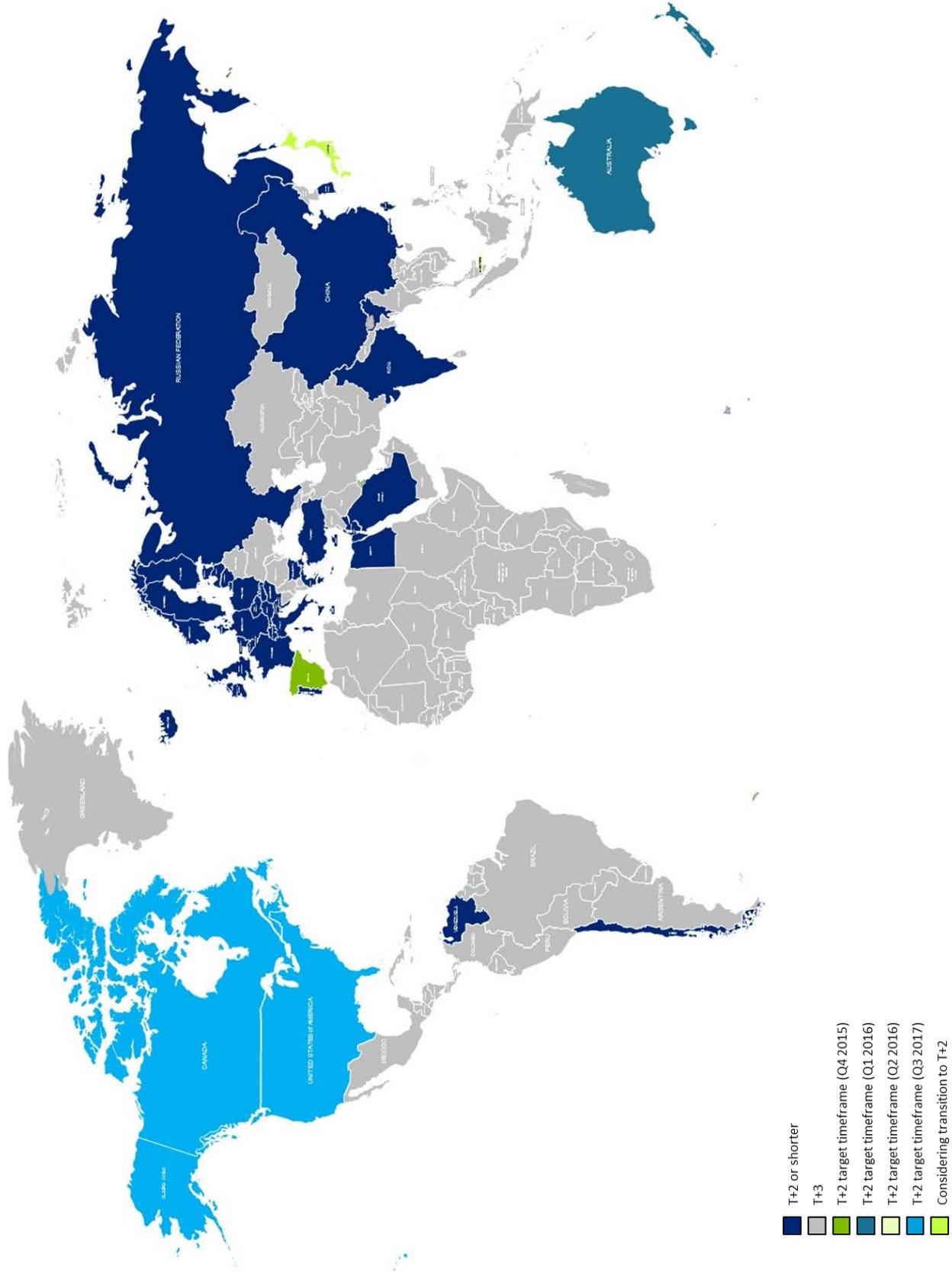
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10.7. Documentation

Documentation				
Reference	Document(s)	Internal	External	T+2 Impact (Yes/No)
5.3.1a	10b-10 Confirmations	X	X	
5.3.1a	Balance Restriction Documentation		X	
5.3.1a	Client Account Opening Documents		X	
5.3.1a	Client Account Statements and Disclosures		X	
5.3.1a	Corporate Actions Notifications		X	
5.3.1a	Custody and Sub-Custody Documents		X	
5.3.1a	Fund Prospectus and Statements		X	
5.3.1a	Letter of Transmittal for Voluntary Corporate Actions		X	
5.3.1a	Loan Agreements (e.g. MSLA, GMSLA, and ISLA)		X	
5.3.1a	Margin Call Notifications		X	
5.3.1a	Notices of Execution	X	X	
5.3.1a	Product Issuance Documents for Rights and Warrants		X	
5.3.1a	Reinvestment Agreements and DRIP Documents		X	
5.3.1a	Stock Loan Recall Notices		X	
5.3.1a	Trading Relationship Agreements (e.g. ETFs, Swaps)		X	
5.3.1b	CNSID Net Announcements	X	X	
5.3.1b	Subscription Documentation	X	X	
5.3.1b	Transfer Agent Announcements	X	X	
5.3.1b	Utility, Vendor, and Service Bureau Product Guides	X	X	
5.3.1b	Vendor and Service Bureau Contracts and Service Agreements	X	X	
5.3.2a	Accounting Policies	X		
5.3.2a	Internal Control and Compliance Documentation	X		
5.3.2a	Operating Procedure Documentation	X		
5.3.2a	Trading, Liquidity, and Cash Flow Models	X		
5.3.3a	Client Awareness Brochures	X	X	
5.3.3a	Customer and Internal T+3 to T+2 Notices	X	X	
5.3.3a	Internal Training Materials	X		
5.3.3a	Internet and Intranet Information	X	X	

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10.8. Global Markets Settlement Cycle Map



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10.9. Remedial Activities Table

Remedial Activities			
3.3.1a Activities to Configure Trading Systems			
#	Implementation Steps	Organization Participants (Front, Middle, Back, IT, Vendor)	Systems
1	Inventory trading systems, including hardware and software (completeness check)		
2	Determine systems with in-scope products impacted by T+2 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 (consider how to release code on T+2 migration date while continuing operations for T+3 settlement)		
8	Schedule and execute system changes (consider customer experience and user interface continuity when scheduling trading system changes)		

3.3.1b Activities to Update Reference Data			
#	Implementation Steps	Organization Participants (Front, Middle, Back, IT, Vendor)	Systems
1	Identify data sources and inventory reference data (completeness check)		
2	Determine reference data impacted by T+2 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+2 migration date while continuing operations for T+3 settlement)		
8	Schedule and execute reference data changes		

3.3.1c Activities to Remediate Trade Funding Processes and Payment Mechanisms			
#	Implementation Steps	Organization Participants (Front, Middle, Back, IT, Vendor)	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		
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 checking and ACH processing time)		
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		

3.3.1d Activities to Revise Mutual Fund Settlement Dates			
#	Implementation Steps	Organization Participants (Front, Middle, Back, IT, Vendor)	Systems
1	Inventory mutual funds		
2	Determine whether or not 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 mutual funds (consider how to make mutual fund settlement date changes while continuing operations for T+3 settlement)		
6	Schedule and execute mutual fund settlement date changes		

3.3.1e Activities to Adjust ETF Create and Redeem Processes			
#	Implementation Steps	Organization Participants (Front, Middle, Back, IT, Vendor)	Systems
1	Adjust ETF create and redeem processes to define regular way/standard settlement as T+2 and shortened settlement as T+1		
2	Develop test plans for ETF creation and redemption		
3	Schedule and execute ETF settlement date changes		

3.3.1f Activities to Remediate Trade Order Management and Trade Capture Processes			
#	Implementation Steps	Organization Participants (Front, Middle, Back, IT, Vendor)	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 (TOM) systems, UTC messages)		
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		

3.3.2a Activities to Remediate Trade Matching Processes			
#	Implementation Steps	Organization Participants (Front, Middle, Back, IT, Vendor)	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		

3.3.3a Activities to Remediate Trade Affirmation Processes			
#	Implementation Steps	Organization Participants (Front, Middle, Back, IT, Vendor)	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		
4	Coordinate changes to processes related to trade affirmation with internal and external stakeholders		
5	Develop test plans for affirmed non-ID Net eligible institutional trade submission		
6	Schedule and execute process changes for affirmed trade submission		

3.3.3b Activities to Update Projection Reports			
#	Implementation Steps	Organization Participants (Front, Middle, Back, IT, Vendor)	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+2 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 projection report changes		

3.3.4a Activities to Improve Platforms Supporting the Delivery of Physical Securities			
#	Implementation Steps	Organization Participants (Front, Middle, Back, IT, Vendor)	Systems
1	Inventory platforms supporting physical securities delivery		
2	Determine platforms supporting physical securities delivery impacted by T+2 implementation		
3	Assess changes required to platforms supporting physical securities delivery for T+2 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 platforms supporting physical securities delivery		
7	Schedule and execute changes to platforms supporting physical securities delivery		

3.3.4b Activities to Remediate Physical Securities Delivery Processes			
#	Implementation Steps	Organization Participants (Front, Middle, Back, IT, Vendor)	Systems
1	Inventory processes for delivering physical securities		
2	Determine processes for delivering physical securities to NSCC's ESS impacted by T+2 implementation		
3	Assess changes required to physical securities delivery processes for T+2 settlement		
4	Enhance upstream processes and procedures to increase time for the delivery of physical securities		
5	Review tracking of physical securities deliveries with transfer agents		
6	Coordinate physical securities delivery process changes with internal and external stakeholders		
7	Develop test plans for delivering physical securities for T+2 settlement		
8	Schedule and execute physical securities delivery process changes		

4.3.1a Activities to Configure Ex-Date Calculations			
#	Implementation Steps	Organization Participants (Front, Middle, Back, IT, Vendor)	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 calculation changes		
5	Examine impact of ex-date changes to compliance and oversight requirements		
6	Ensure materials regarding T+2 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 calculation changes		

4.3.1b Activities to Adjust Ex-Date Notification Announcement Systems			
#	Implementation Steps	Organization Participants (Front, Middle, Back, IT, Vendor)	Systems
1	Identify announcement systems used for ex-date notifications		
2	Determine impact to ex-date notifications and announcement systems for T+2 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		

4.3.1c Activities to Modify Internal Processing Systems that Calculate Ex-Dates			
#	Implementation Steps	Organization Participants (Front, Middle, Back, IT, Vendor)	Systems
1	Ensure that systems and reference data related to ex-date calculations are included in inventories for configuration		
2	Evaluate the impact to 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+2 migration date while continuing T+3 settlement operations)		
6	Schedule and execute changes related to internal ex-date calculations		

4.3.1d Activities to Adjust Due Bill Processing			
#	Implementation Steps	Organization Participants (Front, Middle, Back, IT, Vendor)	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		

4.3.1e Activities to Modify Interim Accounting Processes			
#	Implementation Steps	Organization Participants (Front, Middle, Back, IT, Vendor)	Systems
1	Ensure that systems and reference data related to interim accounting are included in inventories for configuration		
2	Evaluate the impact to 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		

4.3.2a Activities to Review Reorganization Announcement Platforms			
#	Implementation Steps	Organization Participants (Front, Middle, Back, IT, Vendor)	Systems
1	Ensure that reorganization announcement platforms and reference data are included in 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		
5	Develop test plans for reorganization announcement platforms		
6	Schedule and execute changes related to reorganization announcement platforms		

4.3.2b Activities to Modify Voluntary Reorganization Processing Applications			
#	Implementation Steps	Organization Participants (Front, Middle, Back, IT, Vendor)	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		

4.3.2c Activities to Upgrade Internal Processing Systems that Calculate Cover/Protect Dates			
#	Implementation Steps	Organization Participants (Front, Middle, Back, IT, Vendor)	Systems
1	Ensure that systems and reference data related to cover/protect date calculations are included in inventories for configuration		
2	Evaluate the impact to 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 (consider how to make changes on T+2 m date while continuing T+3 settlement operations)		
6	Schedule and execute changes related to internal cover/protect date calculations		

5.3.1a Activities to Update External Client-Facing Documentation			
#	Implementation Steps	Organization Participants (Front, Middle, Back, IT, Vendor)	Systems
1	Inventory external client-facing documentation that references T+3 settlement, including electronic documents and website information		
2	Inventory static data resources used for auto-populating documentation that reference T+3 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		

5.3.1b Activities to Update External Service Agreement Documentation			
#	Implementation Steps	Organization Participants (Front, Middle, Back, IT, Vendor)	Systems
1	Inventory vendor and service bureau documentation that references a three day settlement period, including agreements, service descriptions, product guides, and fee schedules		
2	Update external vendor and service bureau documentation for two 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		

5.3.2a Activities to Adjust Operating Procedures and Internal Control Documentation			
#	Implementation Steps	Organization Participants (Front, Middle, Back, IT, Vendor)	Systems
1	Identify and inventory sources for operating procedures and control documentation		
2	Determine operating procedures and control documentation that reference T+3 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		

5.3.3a Activities to Educate Customers and Staff on T+2 Settlement			
#	Implementation Steps	Organization Participants (Front, Middle, Back, IT, Vendor)	Systems
1	Identify customers and staff who require education related to T+2 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+2 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+2 implementation		
9	Distribute T+2 settlement education material to customers		

6.3.1a Activities to Remediate Processes Global Considerations			
#	Implementation Steps	Organization Participants (Front, Middle, Back, IT, Vendor)	Systems
1	Identify changes to market synchronization for T+2 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+2 implementation		
5	Coordinate identified changes with internal and external stakeholders		
6	Schedule and execute identified changes		

6.3.2a Activities to Assess Liquidity and Collateral Management			
#	Implementation Steps	Organization Participants (Front, Middle, Back, IT, Vendor)	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+2 settlement will impact the collateral management process		
4	Determine if changes to collateral management systems are required due to shortened settlement cycle		

6.3.3a Activities to Review Securities Lending Processes and Procedures			
#	Implementation Steps	Organization Participants (Front, Middle, Back, IT, Vendor)	Systems
1	Review policies and procedures related to securities lending		
2	Update policies and procedures for securities lending as appropriate		

6.3.4a Activities to Assess Processes Related to Dividend Reinvestment Plans			
#	Implementation Steps	Organization Participants (Front, Middle, Back, IT, Vendor)	Systems
1	Determine required changes for DRIPs due to T+2 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+2 settlement		
5	Schedule and execute changes prior to T+2 settlement		
6	Advise plan participants of changes to DRIP functionality		

6.3.5a Activities to Assess Options Exercise and Assignment Processes			
#	Implementation Steps	Organization Participants (Front, Middle, Back, IT, Vendor)	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		

7.3.1a Activities to Assess Rule Changes and Regulatory Reporting			
#	Implementation Steps	Organization Participants (Front, Middle, Back, IT, Vendor)	Systems
1	Assess rule changes for impact (e.g. compliance reporting, system changes)		
2	Ensure that systems and reference data impacted by rule changes are included in inventories for configuration		
3	Determine changes required to processes for rule changes		
4	Coordinate changes with internal and external		
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		

8.3.1a Activities to Develop Test Plans			
#	Implementation Steps	Organization Participants (Front, Middle, Back, IT, Vendor)	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	Organizations required to receive DTCC certification for sandbox testing		
10	Conduct post-migration testing activities		

8.3.2a Activities to Review Processes Related to Claiming Failed Deliveries, Recalling Securities, and Tracking Pending Trades Prior to Migration			
#	Implementation Steps	Organization Participants (Front, Middle, Back, IT, Vendor)	Systems
1	Determine required changes to failed trades process for migration to T+2 settlement		
2	Determine required changes to securities lending recall process for migration to T+2 settlement		
3	Determine required changes to pending trade tracking process for migration to T+2 settlement		

4	Coordinate changes with internal and external stakeholders		
5	Develop test plan for trades around voluntary reorganization expiration dates for migration to T+2 settlement		
6	Schedule and execute changes prior to migration to T+2 settlement		

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10.10. Dimensions Table

3.3.1a Dimensions to Configure Trading Systems		
Dimension	Impacted?	Summary of Risk
Business Model	◆	The IWG determined no or minimal risk. Organizations should perform a risk assessment.
Product Type	✓	Trading systems should be configured for T+2 settlement to process various product types (e.g. fixed income vs. equities) correctly.
Vendor & Service Bureau Support	✓	Vendors and service bureaus that do not properly configure internal trading systems for T+2 settlement could cause risk (e.g. financial, reputational) to their customer organizations.
Trading Venue	◆	The IWG determined no or minimal risk. Organizations should perform a risk assessment.
Risk & Compliance	✓	Trading systems that are not properly configured for the new settlement period may compromise the ability to execute and settle trades in accordance with regulations. Compliance and internal audit functions should be incorporated in the trading system configuration process from inception.
Customer Experience	✓	Incorrectly configured trading 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	✓	Settlement date configuration errors may cause issues across an organization's trading systems and impact upstream and downstream functions that rely on information from the trading systems.
Opportunity to Leverage the EU's T+2 Experience	◆	The IWG determined no or minimal risk. Organizations should perform a risk assessment.

3.3.1b Dimensions to Update Reference Data		
Dimension	Impacted?	Summary of Risk
Business Model	◆	The IWG determined no or minimal risk. Organizations should perform a risk assessment.
Product Type	✓	Various product types (e.g. equities, fixed income, mutual funds, and derivatives) should be reviewed to ensure that the reference data linked to these product types can support upstream and downstream changes for the shortened settlement period.
Vendor & Service Bureau Support	✓	Vendors and service bureaus that do not properly update reference data provided to their customer organizations could cause risk (e.g. financial, reputational) to those organizations.
Trading Venue	◆	The IWG determined no or minimal risk. Organizations should perform a risk assessment.

Risk & Compliance	✓	Risk (e.g. financial, reputational) and compliance issues (inaccurate data used for regulatory reporting) may occur if reference data is not properly configured for T+2 settlement.
Customer Experience	✓	Invalid reference data may cause upstream and downstream implications for internal functions (e.g. reconciliation, income processing) and impact external clients (e.g. client statements, trade confirmations).
Technology Enablers	✓	Issues may occur across an organization's technology platforms if reference data is not comprehensively updated.
Opportunity to Leverage the EU's T+2 Experience	✓	Inadequate understanding of required reference data changes could cause implementation challenges.

3.3.1c Dimensions to Remediate Trade Funding Processes and Payment Mechanisms		
Dimension	Impacted?	Summary of Risk
Business Model	◆	The IWG determined no or minimal risk. Organizations should perform a risk assessment.
Product Type	◆	The IWG determined no or minimal risk. Organizations should perform a risk assessment.
Vendor & Service Bureau Support	✓	Vendors and service bureaus that do not properly update trade funding and payment data and instructions provided to their customer organizations could cause risk (e.g. financial, reputational) to those organizations.
Trading Venue	◆	The IWG determined no or minimal risk. Organizations should perform a risk assessment.
Risk & Compliance	✓	Risk (e.g. financial, reputational) and compliance issues (inaccurate data used for regulatory reporting) may occur if payment mechanisms are not properly updated for T+2 settlement.
Customer Experience	✓	Trade funding and payment mechanism issues may cause upstream and downstream implications for internal functions (e.g. reconciliation, income processing) and impact external clients (e.g. client statements, trade confirmations).
Technology Enablers	✓	Issues may occur across an organization's technology platforms if payment mechanisms and data related to trade funding are not comprehensively updated.
Opportunity to Leverage the EU's T+2 Experience	◆	The IWG determined no or minimal risk. Organizations should perform a risk assessment.

3.3.1d Dimensions to Revise Mutual Fund Settlement Dates		
Dimension	Impacted?	Summary of Risk
Business Model	◆	The IWG determined no or minimal risk. Organizations should perform a risk assessment.
Product Type	✓	Mutual funds could experience operational and settlement issues if settlement dates are not updated for T+2.
Vendor & Service Bureau Support	◆	The IWG determined no or minimal risk. Organizations should perform a risk assessment.
Trading Venue	◆	The IWG determined no or minimal risk. Organizations should perform a risk assessment.
Risk & Compliance	✓	Risk (e.g. financial, reputational) and compliance issues may occur if mutual fund settlement dates are not properly adjusted for T+2 settlement.
Customer Experience	◆	The IWG determined no or minimal risk. Organizations should perform a risk assessment.
Technology Enablers	✓	Issues may occur across an organization's technology platforms if mutual fund settlement dates are not comprehensively updated.
Opportunity to Leverage the EU's T+2 Experience	◆	The IWG determined no or minimal risk. Organizations should perform a risk assessment.

3.3.1e Dimensions to Adjust ETF Create and Redeem Processes		
Dimension	Impacted?	Summary of Risk
Business Model	◆	The IWG determined no or minimal risk. Organizations should perform a risk assessment.
Product Type	✓	ETFs could experience operational and settlement issues if settlement dates are not updated for T+2.
Vendor & Service Bureau Support	◆	The IWG determined no or minimal risk. Organizations should perform a risk assessment.
Trading Venue	◆	The IWG determined no or minimal risk. Organizations should perform a risk assessment.
Risk & Compliance	✓	Risk (e.g. financial, reputational) and compliance issues may occur if ETF create and redeem processes are not properly adjusted for T+2 settlement.
Customer Experience	◆	The IWG determined no or minimal risk. Organizations should perform a risk assessment.
Technology Enablers	✓	Issues may occur across an organization's technology platforms if systems and data related to ETF create and redeem processes are not comprehensively updated.
Opportunity to Leverage the EU's T+2 Experience	◆	The IWG determined no or minimal risk. Organizations should perform a risk assessment.

3.3.1f Dimensions to Remediate Trade Order Management and Trade Capture Processes		
Dimension	Impacted?	Summary of Risk
Business Model	◆	The IWG determined no or minimal risk. Organizations should perform a risk assessment.
Product Type	✓	Impacted products could experience operational and settlement issues if trade order management and trade capture processes are not updated for T+2.
Vendor & Service Bureau Support	✓	Vendors and service bureaus that do not properly update trade order management and trade capture processes provided for their customer organizations could cause risk (e.g. financial, reputational) to those organizations.
Trading Venue	◆	The IWG determined no or minimal risk. Organizations should perform a risk assessment.
Risk & Compliance	✓	Compliance issues and risk (e.g. financial, reputational) may occur if trade order management and trade capture processes are not adjusted for T+2 settlement.
Customer Experience	◆	The IWG determined no or minimal risk. Organizations should perform a risk assessment.
Technology Enablers	✓	Issues may occur across an organization's technology platforms if trade order management and trade capture systems and data are not comprehensively updated.
Opportunity to Leverage the EU's T+2 Experience	◆	The IWG determined no or minimal risk. Organizations should perform a risk assessment.

3.3.2a Dimensions to Remediate Trade Matching Processes		
Dimension	Impacted?	Summary of Risk
Business Model	◆	The IWG determined no or minimal risk. Organizations should perform a risk assessment.
Product Type	✓	Impacted products could experience operational and settlement issues if trade matching processes are not updated for T+2.
Vendor & Service Bureau Support	✓	Vendors and service bureaus that do not properly update trade matching processes provided for their customer organizations could cause risk (e.g. financial, reputational) to those organizations.
Trading Venue	◆	The IWG determined no or minimal risk. Organizations should perform a risk assessment.
Risk & Compliance	✓	Compliance issues and risk (e.g. financial, reputational) may occur if trade matching processes are not adjusted for T+2 settlement.
Customer Experience	◆	The IWG determined no or minimal risk. Organizations should perform a risk assessment.
Technology Enablers	✓	Issues may occur across an organization's technology platforms if systems and data related to trade matching are not comprehensively updated.

Opportunity to Leverage the EU's T+2 Experience	◆	The IWG determined no or minimal risk. Organizations should perform a risk assessment.
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3.3.3a Dimensions to Remediate Trade Affirmation Processes		
Dimension	Impacted?	Summary of Risk
Business Model	◆	The IWG determined no or minimal risk. Organizations should perform a risk assessment.
Product Type	✓	Impacted products could experience operational and settlement issues if trade affirmation processes are not updated for T+2.
Vendor & Service Bureau Support	✓	Vendors and service bureaus that do not properly update trade affirmation processes provided for their customer organizations could cause risk (e.g. financial, reputational) to those organizations.
Trading Venue	◆	The IWG determined no or minimal risk. Organizations should perform a risk assessment.
Risk & Compliance	✓	Compliance issues and risk (e.g. financial, reputational) may occur if trade affirmation processes are not adjusted for T+2 settlement.
Customer Experience	◆	The IWG determined no or minimal risk. Organizations should perform a risk assessment.
Technology Enablers	✓	Issues may occur across an organization's technology platforms if systems and data related to trade affirmation are not comprehensively updated.
Opportunity to Leverage the EU's T+2 Experience	◆	The IWG determined no or minimal risk. Organizations should perform a risk assessment.

3.3.3b Dimensions to Update Projection Reports		
Dimension	Impacted?	Summary of Risk
Business Model	◆	The IWG determined no or minimal risk. Organizations should perform a risk assessment.
Product Type	◆	The IWG determined no or minimal risk. Organizations should perform a risk assessment.
Vendor & Service Bureau Support	◆	The IWG determined no or minimal risk. Organizations should perform a risk assessment.
Trading Venue	◆	The IWG determined no or minimal risk. Organizations should perform a risk assessment.
Risk & Compliance	✓	Compliance issues and risk (e.g. financial, reputational) may occur if projection reports are not updated to reflect the shortened settlement cycle.
Customer Experience	✓	Projection reports not updated for T+2 settlement may cause upstream and downstream implications for internal functions (e.g. reconciliation) and impact external clients (e.g. client statements, trade confirmations).

Technology Enablers	✓	Issues may occur across an organization's technology platforms if systems and data related to projection reports are not comprehensively updated.
Opportunity to Leverage the EU's T+2 Experience	◆	The IWG determined no or minimal risk. Organizations should perform a risk assessment.

3.3.4a Dimensions to Improve Platforms Supporting the Delivery of Physical Securities		
Dimension	Impacted?	Summary of Risk
Business Model	◆	The IWG determined no or minimal risk. Organizations should perform a risk assessment.
Product Type	◆	The IWG determined no or minimal risk. Organizations should perform a risk assessment.
Vendor & Service Bureau Support	◆	The IWG determined no or minimal risk. Organizations should perform a risk assessment.
Trading Venue	◆	The IWG determined no or minimal risk. Organizations should perform a risk assessment.
Risk & Compliance	✓	Physical certificates create an implied risk to the owners, transfer agents, and organizations, as the certificate is proof of ownership. Loss of the certificate can cause risk (e.g. financial, reputational) due to insurance premium costs for replacement.
Customer Experience	✓	Delivery of physical securities in certain situations (i.e. death of owner) can be a time consuming task with documentation requirements. Delays and rework can cause external customer issues.
Technology Enablers	✓	Issues may occur across an organization's technology platforms if systems and data related to physical securities are not comprehensively updated or interfere with other processes.
Opportunity to Leverage the EU's T+2 Experience	◆	The IWG determined no or minimal risk. Organizations should perform a risk assessment.

3.3.4b Dimensions to Remediate Physical Securities Delivery Processes		
Dimension	Impacted?	Summary of Risk
Business Model	◆	The IWG determined no or minimal risk. Organizations should perform a risk assessment.
Product Type	◆	The IWG determined no or minimal risk. Organizations should perform a risk assessment.
Vendor & Service Bureau Support	◆	The IWG determined no or minimal risk. Organizations should perform a risk assessment.
Trading Venue	◆	The IWG determined no or minimal risk. Organizations should perform a risk assessment.

Risk & Compliance	✓	Compliance issues and risk (e.g. financial, reputational) related to the delivery of physical securities may occur if the ESS process is not updated to reflect the shortened settlement cycle.
Customer Experience	✓	Physical securities delivery processes not updated for T+2 settlement may cause upstream and downstream implications for internal functions (e.g. reconciliation, failed trades) and impact external clients (e.g. client statements, trade confirmations).
Technology Enablers	✓	Issues may occur across an organization's technology platforms if systems and data related to physical securities are not comprehensively updated.
Opportunity to Leverage the EU's T+2 Experience	◆	The IWG determined no or minimal risk. Organizations should perform a risk assessment.

4.3.1a Dimensions to Configure Ex-Date Calculations		
Dimension	Impacted?	Summary of Risk
Business Model	◆	The IWG determined no or minimal risk. Organizations should perform a risk assessment.
Product Type	✓	Impacted products could experience income payment errors and operational issues if ex-date calculations are not updated for T+2.
Vendor & Service Bureau Support	✓	Vendors and service bureaus that do not properly update ex-date calculation data and instructions provided to their customer organizations could cause risk (e.g. financial, reputational) to those organizations.
Trading Venue	✓	Trading venues that do not properly update calculations to establish the ex-date for listed securities could cause risk (e.g. entitlement, out of balance) to participating organizations.
Risk & Compliance	✓	Risk (e.g. financial, reputational) and compliance issues related to corporate actions (e.g. dividends, stock splits) may occur if ex-date calculations are not updated to reflect the shortened settlement cycle.
Customer Experience	✓	Incorrect ex-date calculations may cause upstream and downstream implications for internal functions (e.g. reconciliation, income processing) and impact external clients (e.g. client statements, processing errors).
Technology Enablers	✓	Issues may occur across an organization's technology platforms if ex-date calculations and data are not comprehensively updated.
Opportunity to Leverage the EU's T+2 Experience	◆	The IWG determined no or minimal risk. Organizations should perform a risk assessment.

4.3.1b Dimensions to Adjust Ex-Date Notification Announcement Systems		
Dimension	Impacted?	Summary of Risk
Business Model	◆	The IWG determined no or minimal risk. Organizations should perform a risk assessment.
Product Type	✓	Impacted products could experience income payment errors and operational issues if ex-date notifications and data are not updated for T+2.
Vendor & Service Bureau Support	✓	Vendors and service bureaus that do not properly update ex-date notifications and data provided to their customer organizations could cause risk (e.g. financial, reputational) to those organizations.
Trading Venue	✓	Trading venues that do not properly update calculations to establish the ex-date for listed securities could cause risk (e.g. entitlement, out of balance) to participating organizations.
Risk & Compliance	✓	Risk (e.g. financial, reputational) and compliance issues related to corporate actions (e.g. dividends, stock splits) may occur if ex-date notifications and data are not updated to reflect the shortened settlement cycle.
Customer Experience	✓	Incorrect ex-date notifications and 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).
Technology Enablers	✓	Issues may occur across an organization's technology platforms if ex-date notifications and data are not comprehensively updated.
Opportunity to Leverage the EU's T+2 Experience	◆	The IWG determined no or minimal risk. Organizations should perform a risk assessment.

4.3.1c Dimensions to Modify Internal Processing Systems that Calculate Ex-Dates		
Dimension	Impacted?	Summary of Risk
Business Model	◆	The IWG determined no or minimal risk. Organizations should perform a risk assessment.
Product Type	✓	Impacted products could experience income payment errors and operational issues if ex-date calculations are not updated for T+2.
Vendor & Service Bureau Support	✓	Vendors and service bureaus that do not properly update ex-date calculation data and instructions provided to their customer organizations could cause risk (e.g. financial, reputational) to those organizations.
Trading Venue	✓	Trading venues that do not properly update calculations to establish the ex-date for listed securities could cause risk (e.g. entitlement, out of balance) to participating organizations.
Risk & Compliance	✓	Risk (e.g. financial, reputational) and compliance issues related to corporate actions (e.g. dividends, stock splits) may occur if ex-date calculations are not updated to reflect the shortened settlement cycle.
Customer Experience	✓	Incorrect ex-date calculations may cause upstream and downstream implications for internal functions (e.g. reconciliation, income

		processing) and impact external clients (e.g. client statements, processing errors).
Technology Enablers	✓	Issues may occur across an organization's technology platforms if ex-date calculations and data are not comprehensively updated.
Opportunity to Leverage the EU's T+2 Experience	◆	The IWG determined no or minimal risk. Organizations should perform a risk assessment.

4.3.1d Dimensions to Adjust Due Bill Processing		
Dimension	Impacted?	Summary of Risk
Business Model	◆	The IWG determined no or minimal risk. Organizations should perform a risk assessment.
Product Type	✓	Impacted products could experience income payment errors and operational issues if due bill processing and redemption periods are not updated for T+2.
Vendor & Service Bureau Support	✓	Vendors and service bureaus that do not properly update due bill processing data and redemption periods provided to their customer organizations could cause risk (e.g. financial, reputational) to those organizations.
Trading Venue	◆	The IWG determined no or minimal risk. Organizations should perform a risk assessment.
Risk & Compliance	✓	Risk (e.g. financial, reputational) and compliance issues related to due bill processing may result if the redemption period is not updated to reflect the shortened settlement cycle.
Customer Experience	✓	Incorrect ex-date calculations may cause erroneous income payments to customer resulting in risk (e.g. financial, reputational).
Technology Enablers	✓	Issues may occur across an organization's technology platforms if systems and data related to due bill processing are not comprehensively updated.
Opportunity to Leverage the EU's T+2 Experience	◆	The IWG determined no or minimal risk. Organizations should perform a risk assessment.

4.3.1e Dimensions to Modify Interim Accounting Processes		
Dimension	Impacted?	Summary of Risk
Business Model	◆	The IWG determined no or minimal risk. Organizations should perform a risk assessment.
Product Type	◆	The IWG determined no or minimal risk. Organizations should perform a risk assessment.
Vendor & Service Bureau Support	✓	Vendors and service bureaus that do not properly update interim accounting information supplied to organizations could cause reputational and financial risk to the organizations
Trading Venue	◆	The IWG determined no or minimal risk. Organizations should perform a risk assessment.

Risk & Compliance	✓	Risk and compliance issues related to DTC interim accounting process may result if the process is not updated to reflect the shortened settlement cycle
Customer Experience	✓	Incorrect interim accounting data may cause downstream and upstream implications for internal clients (e.g. reconciliation). Incorrect data could also impact external clients (e.g. client statements)
Technology Enablers	◆	The IWG determined no or minimal risk. Organizations should perform a risk assessment.
Opportunity to Leverage the EU's T+2 Experience	◆	The IWG determined no or minimal risk. Organizations should perform a risk assessment.

4.3.2a Dimensions to Review Reorganization Announcement Platforms

Dimension	Impacted?	Summary of Risk
Business Model	◆	The IWG determined no or minimal risk. Organizations should perform a risk assessment.
Product Type	◆	The IWG determined no or minimal risk. Organizations should perform a risk assessment.
Vendor & Service Bureau Support	✓	Vendors and service bureaus that do not properly update reorganization announcements provided to their customer organizations could cause risk (e.g. financial, reputational) to those organizations.
Trading Venue	◆	The IWG determined no or minimal risk. Organizations should perform a risk assessment.
Risk & Compliance	✓	Risk (e.g. financial, reputational) and compliance issues related to corporate action events (e.g. missing elections) may occur if reorganization announcements are not updated to reflect the shortened settlement cycle.
Customer Experience	✓	Incorrect reorganization announcements may cause upstream and downstream implications for internal functions (e.g. corporate actions processing) and impact external clients (e.g. missing elections).
Technology Enablers	✓	Issues may occur across an organization's technology platforms if reorganization announcements are not comprehensively updated.
Opportunity to Leverage the EU's T+2 Experience	◆	The IWG determined no or minimal risk. Organizations should perform a risk assessment.

4.3.2b Dimensions to Modify Voluntary Reorganization Processing Applications

Dimension	Impacted?	Summary of Risk
Business Model	◆	The IWG determined no or minimal risk. Organizations should perform a risk assessment.

Product Type	◆	The IWG determined no or minimal risk. Organizations should perform a risk assessment.
Vendor & Service Bureau Support	✓	Vendors and service bureaus that do not properly update voluntary reorganization data provided to their customer organizations could cause risk (e.g. financial, reputational) to those organizations.
Trading Venue	◆	The IWG determined no or minimal risk. Organizations should perform a risk assessment.
Risk & Compliance	✓	Risk (e.g. financial, reputational) and compliance issues related to voluntary reorganization processing may occur if applications are not modified to reflect the shortened settlement cycle.
Customer Experience	✓	Incorrect voluntary reorganization processing may cause upstream and downstream implications for internal functions (e.g. corporate actions processing) and impact external clients (e.g. missing elections).
Technology Enablers	✓	Issues may occur across an organization's technology platforms if voluntary reorganization processing applications are not comprehensively updated.
Opportunity to Leverage the EU's T+2 Experience	◆	The IWG determined no or minimal risk. Organizations should perform a risk assessment.

4.3.2c Dimensions to Update Internal Processing Systems That Calculate Cover/Protect Dates		
Dimension	Impacted?	Summary of Risk
Business Model	◆	The IWG determined no or minimal risk. Organizations should perform a risk assessment.
Product Type	✓	Impacted products could experience income payment errors and operational issues if cover/protect date calculations are not updated for T+2.
Vendor & Service Bureau Support	✓	Vendors and service bureaus that do not properly update cover/protect date data provided to their customer organizations could cause risk (e.g. financial, reputational) to those organizations.
Trading Venue	◆	The IWG determined no or minimal risk. Organizations should perform a risk assessment.
Risk & Compliance	✓	Risk (e.g. financial, reputational) and compliance issues related to cover/protect dates may occur if internal processing systems are not modified to reflect the shortened settlement cycle.
Customer Experience	✓	Incorrect cover/protect date processing may cause upstream and downstream implications for internal functions (e.g. corporate actions processing) and impact external clients (e.g. missing elections to participate in voluntary corporate action events, financial loss).
Technology Enablers	✓	Issues may occur across an organization's technology platforms if cover/protect date calculations are not comprehensively updated.
Opportunity to Leverage the EU's T+2 Experience	◆	The IWG determined no or minimal risk. Organizations should perform a risk assessment.

5.3.1a Dimensions to Update External Client-Facing Documentation		
Dimension	Impacted?	Summary of Risk
Business Model	◆	The IWG determined no or minimal risk. Organizations should perform a risk assessment.
Product Type	✓	Impacted products and related services could be misrepresented to clients if documents that reference in-scope products are not updated for T+2.
Vendor & Service Bureau Support	✓	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	◆	The IWG determined no or minimal risk. Organizations should perform a risk assessment.
Risk & Compliance	✓	Risk (e.g. financial, reputational) and compliance issues related may occur if external client-facing documentation is not updated to reflect the shortened settlement cycle.
Customer Experience	✓	Incorrect external client-facing 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.
Technology Enablers	✓	Issues may occur across an organization's technology platforms if reference data and systems that populate client statements and other documentation are not comprehensively updated.
Opportunity to Leverage the EU's T+2 Experience	◆	The IWG determined no or minimal risk. Organizations should perform a risk assessment.

5.3.1b Dimensions to Update External Service Agreement Documentation		
Dimension	Impacted?	Summary of Risk
Business Model	◆	The IWG determined no or minimal risk. Organizations should perform a risk assessment.
Product Type	◆	The IWG determined no or minimal risk. Organizations should perform a risk assessment.
Vendor & Service Bureau Support	✓	Vendors and service bureaus that do not properly update service agreements and documentation for the shortened settlement cycle could provide inaccurate and potentially misleading information to their customer organizations.
Trading Venue	◆	The IWG determined no or minimal risk. Organizations should perform a risk assessment.
Risk & Compliance	✓	Risk (e.g. financial, reputational) and delivery of service issues may occur if external service agreement documentation is not updated to reflect the shortened settlement cycle.

Customer Experience	✓	Incorrect external service agreement documentation may cause reputational damage to an organization and impact clients by potential misinformation. Potential fines and financial liabilities could result from client losses based on misinformation from inaccurate documentation.
Technology Enablers	✓	Issues may occur across an organization's technology platforms if reference data and systems that populate external service agreement documentation are not comprehensively updated.
Opportunity to Leverage the EU's T+2 Experience	◆	The IWG determined no or minimal risk. Organizations should perform a risk assessment.

5.3.2a Dimensions to Adjust Operating Procedures and Internal Control Documentation		
Dimension	Impacted?	Summary of Risk
Business Model	◆	The IWG determined no or minimal risk. Organizations should perform a risk assessment.
Product Type	◆	The IWG determined no or minimal risk. Organizations should perform a risk assessment.
Vendor & Service Bureau Support	✓	Vendors and service bureaus that do not properly update operating procedures provided to their customer organizations could cause risk (e.g. operational, reputational) to those organizations and potential upstream and downstream issues.
Trading Venue	✓	References to the T+3 settlement cycle in the operating procedures and internal control documentation will not align to updated rules of trading venues.
Risk & Compliance	✓	Risk (e.g. operational, financial, reputational) and compliance issues may occur if operating procedures and internal control documentation is not updated to reflect the shortened settlement cycle.
Customer Experience	◆	The IWG determined no or minimal risk. Organizations should perform a risk assessment.
Technology Enablers	✓	Issues may occur across an organization's technology platforms if operating procedures and internal control documentation are outdated.
Opportunity to Leverage the EU's T+2 Experience	◆	The IWG determined no or minimal risk. Organizations should perform a risk assessment.

5.3.3a Dimensions to Educate Customers and Staff on T+2 Settlement		
Dimension	Impacted?	Summary of Risk
Business Model	◆	The IWG determined no or minimal risk. Organizations should perform a risk assessment.
Product Type	✓	Internal and external documentation about the industry's move to T+2 should be updated in order for customers and staff to be aware of impacts to in-scope products.
Vendor & Service Bureau Support	✓	Vendors and service bureaus that do not properly update training materials provided to their customer organizations could cause risk (e.g. operational, financial, and reputational) to those organizations.
Trading Venue	◆	The IWG determined no or minimal risk. Organizations should perform a risk assessment.
Risk & Compliance	✓	Risk (e.g. operational, financial, reputational) and compliance issues (e.g. licensing exams) may occur if training materials are not updated to inform staff about the T+2 settlement cycle.
Customer Experience	✓	Incorrect customer education materials may cause reputational damage to an organization and impact clients by potential misinformation.
Technology Enablers	✓	Online and computer based training programs, and internet and intranet information could be obsolete and cause operational issues an organization.
Opportunity to Leverage the EU's T+2 Experience	✓	The risk of not investing in awareness campaign in advance of the move to T+2 could impact organizations and their clients.

6.3.1a Dimensions to Remediate Global Considerations Processes		
Dimension	Impacted?	Summary of Risk
Business Model	◆	The IWG determined no or minimal risk. Organizations should perform a risk assessment.
Product Type	✓	ADRs could experience operational and settlement issues if settlement dates, processes, and procedures are not updated for T+2. ADR issuance and cancellation procedures should be reviewed to ensure that the T+2 settlement cycle does not cause issues. Product type purchases and sales that are linked to a foreign exchange should be reviewed.
Vendor & Service Bureau Support	✓	Vendors and service bureaus that do not properly update operation management systems (OMS) used by customer organizations to ensure that global processing supports the T+2 settlement could cause risk (e.g. financial, reputational) to those organizations.
Trading Venue	◆	The IWG determined no or minimal risk. Organizations should perform a risk assessment.
Risk & Compliance	✓	Risk (e.g. financial, reputational) and compliance issues may occur if global trade processes are not properly updated for T+2 settlement.
Customer Experience	✓	Issues with global trade processes may cause upstream and downstream implications for internal functions (e.g. trade funding)

		and impact external clients (e.g. failed trades, overdrawn currency balances).
Technology Enablers	✓	Cross border trades may fail if trading systems that link foreign exchange to trade orders are not updated for T+2 settlement. Without system updates, the cash side of the orders will be expecting T+3 settlement and cleared funds will not be available.
Opportunity to Leverage the EU's T+2 Experience	✓	Experiences from the EU's T+2 implementation should be reviewed with regards to cross border transactions.

6.3.2a Dimensions to Assess Liquidity and Collateral Management		
Dimension	Impacted?	Summary of Risk
Business Model	◆	The IWG determined no or minimal risk. Organizations should perform a risk assessment.
Product Type	◆	The IWG determined no or minimal risk. Organizations should perform a risk assessment.
Vendor & Service Bureau Support	✓	Vendors and service bureaus that do not properly update systems related to liquidity and collateral management provided to customer organizations could cause risk (e.g. financial, reputational) to those organizations.
Trading Venue	◆	The IWG determined no or minimal risk. Organizations should perform a risk assessment.
Risk & Compliance	✓	Risk (e.g. financial, reputational) and compliance issues may occur if liquidity and collateral management processes are not properly updated for T+2 settlement.
Customer Experience	✓	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	✓	Issues may occur across an organization's technology platforms if systems and data related to liquidity and collateral management are not comprehensively updated.
Opportunity to Leverage the EU's T+2 Experience	◆	The IWG determined no or minimal risk. Organizations should perform a risk assessment.

6.3.3a Dimensions to Review Securities Lending Processes and Procedures		
Dimension	Impacted?	Summary of Risk
Business Model	◆	The IWG determined no or minimal risk. Organizations should perform a risk assessment.
Product Type	◆	The IWG determined no or minimal risk. Organizations should perform a risk assessment.
Vendor & Service Bureau Support	✓	Vendors and service bureaus that do not properly update systems and data related to securities lending provided to their customer

		organizations could cause risk (e.g. operational, financial, and reputational) to those organizations.
Trading Venue	◆	The IWG determined no or minimal risk. Organizations should perform a risk assessment.
Risk & Compliance	✓	Risk (e.g. operational, financial, and reputational) and compliance issues may occur if securities lending processes is not properly updated for T+2 settlement.
Customer Experience	✓	Security lending processing issues may impact external clients and cause risk (e.g. financial, reputational).
Technology Enablers	✓	Issues may occur across an organization's technology platforms if securities lending processes are not comprehensively updated.
Opportunity to Leverage the EU's T+2 Experience	◆	The IWG determined no or minimal risk. Organizations should perform a risk assessment.

6.3.4a Dimensions to Assess Processes Related to Dividend Reinvestment Plans		
Dimension	Impacted?	Summary of Risk
Business Model	◆	The IWG determined no or minimal risk. Organizations should perform a risk assessment.
Product Type	◆	The IWG determined no or minimal risk. Organizations should perform a risk assessment.
Vendor & Service Bureau Support	✓	Vendors and service bureaus that do not properly update dividend reinvestment plan data provided to their customer organizations could cause risk (e.g. financial, reputational) to those organizations.
Trading Venue	◆	The IWG determined no or minimal risk. Organizations should perform a risk assessment.
Risk & Compliance	✓	Risk (e.g. financial, reputational) and compliance issues related to dividend reinvestment plans may occur if the processes are not updated to reflect the shortened settlement cycle.
Customer Experience	✓	Inaccurate dividend reinvestment plan information may cause upstream and downstream implications for internal functions (e.g. income processing) and impact external clients (e.g. client statements, financial loss).
Technology Enablers	✓	Issues may occur across an organization's technology platforms if systems and data related to dividend reinvestment plans are not comprehensively updated.
Opportunity to Leverage the EU's T+2 Experience	◆	The IWG determined no or minimal risk. Organizations should perform a risk assessment.

6.3.5a Dimensions to Assess Options Exercise and Assignment Processes		
Dimension	Impacted?	Summary of Risk
Business Model	◆	The IWG determined no or minimal risk. Organizations should perform a risk assessment.
Product Type	✓	Underlying securities could experience operational and settlement issues if settlement dates are not adjusted for T+2.
Vendor & Service Bureau Support	✓	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	✓	Options exercise and assignment processes not properly updated for T+2 settlement could cause out of balances with the Options Clearing Corporation (OCC).
Risk & Compliance	✓	Risk (e.g. operational, financial, and reputational) and compliance issues may occur if options exercise and assignment processes are not properly configured for T+2.
Customer Experience	✓	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	✓	Issues may occur across an organization's technology platforms if options exercise and assignment processes and options settlement data configuration are not comprehensively updated.
Opportunity to Leverage the EU's T+2 Experience	◆	The IWG determined no or minimal risk. Organizations should perform a risk assessment.

7.3.1a Dimensions to Assess Rule Changes and Regulatory Reporting		
Dimension	Impacted?	Summary of Risk
Business Model	◆	The IWG determined no or minimal risk. Organizations should perform a risk assessment.
Product Type	✓	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	✓	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	◆	The IWG determined no or minimal risk. Organizations should perform a risk assessment.
Risk & Compliance	✓	Risk (e.g. operational, financial, and reputational) and compliance issues may occur if rule changes are not properly applied for T+2 settlement.
Customer Experience	✓	Incorrectly applied rule changes may impact external clients (e.g. failed trades) and cause risk (e.g. operational, financial, and reputational).

Technology Enablers	✓	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).
Opportunity to Leverage the EU's T+2 Experience	◆	The IWG determined no or minimal risk. Organizations should perform a risk assessment.

8.1.1a Dimensions to Develop Test Plans		
Dimension	Impacted?	Summary of Risk
Business Model	◆	The IWG determined no or minimal risk. Organizations should perform a risk assessment.
Product Type	✓	Trades involving various securities could process incorrectly or fail if testing is not comprehensive across product types.
Vendor & Service Bureau Support	✓	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	✓	Test plans will need to be developed for each trading venue included in industry testing.
Risk & Compliance	✓	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+2 settlement.
Customer Experience	✓	Insufficient testing may cause upstream and downstream implications for internal functions and impact external customers.
Technology Enablers	✓	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.
Opportunity to Leverage the EU's T+2 Experience	◆	The IWG determined no or minimal risk. Organizations should perform a risk assessment.

8.3.2b Dimensions to Review Processes Related to Claiming Failed Deliveries, Recalling Securities, and Tracking Pending Trades Prior to Migration		
Dimension	Impacted?	Summary of Risk
Business Model	◆	The IWG determined no or minimal risk. Organizations should perform a risk assessment.
Product Type	◆	The IWG determined no or minimal risk. Organizations should perform a risk assessment.
Vendor & Service Bureau Support	✓	Vendors and service bureaus that do not properly update processes related voluntary reorganization expiration dates provided to their customer organizations could cause risk (e.g. financial, reputational) to those organizations.
Trading Venue	◆	The IWG determined no or minimal risk. Organizations should perform a risk assessment.

Risk & Compliance	✓	Risk (e.g. financial, reputational) and compliance issues related to voluntary reorganization expiration dates may occur if processes are not modified to reflect the shortened settlement cycle.
Customer Experience	✓	Incorrect voluntary reorganization expiration date processing may cause upstream and downstream implications for internal functions (e.g. corporate actions processing) and impact external clients (e.g. missing elections).
Technology Enablers	✓	Issues may occur across an organization's technology platforms if processes related to voluntary reorganization expiration dates are not comprehensively updated.
Opportunity to Leverage the EU's T+2 Experience	◆	The IWG determined no or minimal risk. Organizations should perform a risk assessment.

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10.11. Regulatory Bodies

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

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10.12. Sample Remedial Activities Table

Remedial Activities			
#	Implementation Steps	Organization Participants (Front, Middle, Back, IT, Vendor)	Systems
1			
2			
3			
4			
5			
6			
7			
8			
9			
10			

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10.13. Sample Dimensions Table

Dimension		
Dimension	Impacted?	Summary of Risk
Business Model	✓ ◆	
Product Type	✓ ◆	
Vendor & Service Bureau Support	✓ ◆	
Trading Venue	✓ ◆	
Risk & Compliance	✓ ◆	
Customer Experience	✓ ◆	
Technology Enablers	✓ ◆	
Opportunity to Leverage the EU's T+2 Experience	✓ ◆	

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11. Glossary

Glossary		
Term	Acronym	Description
Automated Customer Account Transfer Service	ACATS	A system that facilitates the transfer of securities from one trading account to another at a different brokerage firm or bank. The National Securities Clearing Corporation (NSCC) developed the ACATS system, replacing the previous manual asset transfer system with a fully automated and standardized one.
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.
Automated Subscription Offer Program	ASOP	DTC's ASOP is an agent application offered by DTC that displays participant rights subscription instruction details.
Automated Tender Offer Program	ATOP	DTC's ASOP is an agent application offered by DTC that displays participant rights subscription instruction details.
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	A slang 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.

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 provide 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.
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, 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.
Industry Steering Committee	ISC	The ISC provides guidance, direction, and support for the effort to migrate to a T+2 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
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.

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 PTOPTOP 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 vacuum of an absence of government oversight and regulation.
Standing Settlement Instruction	SSI	Settlement instructions governing the delivery of financial instruments between two counterparties.
Sub-Working Group	SWG	The IWG was made up of 5 SWGs named Teams Alpha, Bravo, Charlie, Delta, and Lima. Team Alpha focused on identifying the in-scope products for the transition to T+2, Team Bravo on identifying the buy-side industry requirements, Team Charlie on operational processes including asset servicing, Team Delta on identifying sell-

		side as well as DTC/ NSCC industry requirements, and Team Lima focused on regulatory changes.
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.

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