TMPG | Treasury Market Practices Group

# Treasury Market Practices Group Clearing and Settlement Outreach

August-October 2018

# Agenda

- Introduction to TMPG
  - Mission, background and structure
  - Development of best practices
  - Publications and initiatives
- Clearing and Settlement
- Appendices
- Resources

# Introduction to TMPG

# Mission

- TMPG is a New York Fed-sponsored group of market professionals committed to supporting the integrity and efficiency of the Treasury, agency debt, and agency mortgage-backed securities markets.
  - Develops recommended best practices on issues that increase the integrity and efficiency of the covered markets
  - Promotes adoption of the best practices it develops, which is critical to their ultimate success as markets evolve
  - Serves as an important forum to discuss new developments and practices in these markets, and shares those insights with the New York Fed and U.S. Treasury
  - Breadth and diversity of membership supports a comprehensive view

# Background and Structure

- Established in February 2007
- New York Fed selects members and designates a Chair
- Secretariat is staffed by the New York Fed
- TMPG may establish standing subcommittees or working groups to focus on specific issues
- Meets regularly (minimum eight times per year)
- Meeting agendas, minutes, and announcements posted on TMPG website (www.newyorkfed.org/tmpg)
- TMPG has created procedures to help maximize compliance with both the letter and the spirit of the antitrust laws

# Development of Best Practices

- Best Practice Recommendations:  Intended to serve as guidelines for any market participant active in the wholesale Treasury, agency debt, and agency MBS markets
  - Promoting market making and liquidity
  - Promoting appropriate use and handling of confidential information
  - Maintaining a robust control environment
  - Managing large positions with care
  - Promoting efficient market clearing
- Best practices seek to promote good market conduct and are updated as needed over time to maintain applicability in these markets
- Adoption of best practices is voluntary

# Publications and Initiatives

- Recent guidance published
  - Update to fails charge practices (April 2018)
    - TMPG updated the existing fails charge trading practices for U.S. Treasury, agency debt and agency MBS by including a floor of 1 per cent per annum to ensure that a minimal charge remains in place, thereby maintaining continuity of operational procedures to process fails claims
  - Information handling (January 2018)
    - TMPG published best practice guidance around the sharing and use of confidential information for market participants in the covered markets
- Current initiatives
  - Clearing and settlement
    - Study and map existing clearing and settlement processes in the secondary Treasury cash market, identify risk and resiliency issues, and explore possible areas for improvement; consultation paper published
  - Outreach
    - Promote awareness of the TMPG's best practice guidance through outreach to diverse market constituents and considerations of ways to measure adherence to best practices

# Clearing and Settlement

# C&S: Background

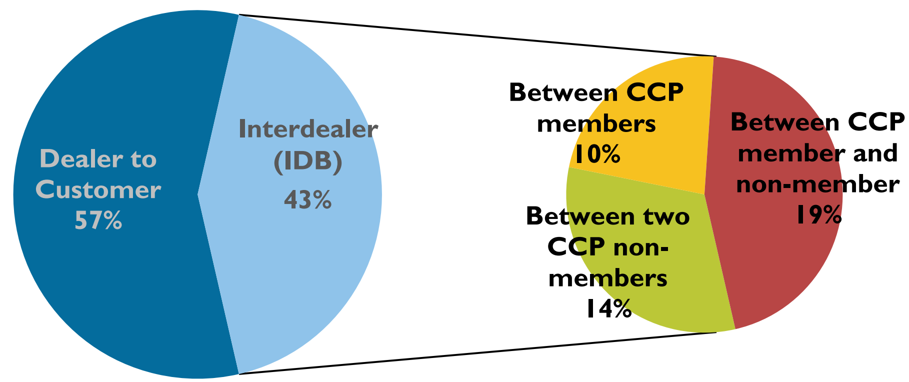
- Uncharacteristic and inexplicable price volatility in Treasury cash market on October 15, 2014
- Focused official sector attention on the evolving structure of the Treasury market
  - Publication of Joint Staff Report (2015)
  - U.S. Treasury issued Request for Information (2016) and published Economic Opportunities Capital Markets report (2017)
- TMPG working group formed in late 2016 to study and report on the current clearing and settlement practices in the secondary market for U.S. Treasury securities
  - Published a consultative *White Paper on Clearing and Settlement in the Secondary Market for U.S. Treasury Securities* on July 12, 2018 that describes the various clearing and settlement arrangements, provides detailed maps that illustrate the process flows, and catalogs potential areas of risk
  - Public comment period open until September 28, 2018

# Evolution of Treasury Cash Market

- Since 2000 the Treasury market has seen significant change
  - Increase in sophisticated and highly automated electronic trading across multiple execution venues has significantly increased the speed of trading
  - New market participants – Principal Trading Firms (PTFs) – trade at high speeds and may present risks to clearing and settlement which may not be properly priced or risk-managed
  - Interdealer Brokers (IDBs) are execution venues for PTFs and dealers and as much as two thirds of notional volume may clear bilaterally
  - Dealers are also engaged in automated trading, and have come to rely upon the pricing and the liquidity of IDBs and PTFs for themselves and their customers
  - A vast majority of cash market trading – across dealer client and IDB platforms – is not centrally cleared
- Innovations in execution venues, participants and clearing have contributed to Treasury market liquidity
  - …but innovations have also introduced novel risks in the clearing and settlement process

# C&S: Treasury Cash Market Segments

- Two segments in the Treasury cash market
  - Dealer to customer segment
  - IDB platform segment
    - High speed central limit order book like futures, equities
    - Traditionally only broker-dealers, but since early 2000's open to others (mostly PTFs)




Notes: The figures are estimated using FR 2004 data covering the first half of 2017 and various assumptions, including that a) primary dealers account for all dealer activity, b) 5% of dealers' trading not through an IDB is with another dealer, c) the shares of dealer and non-dealer activity in the IDB market for coupon securities equal the weighted averages of the shares reported in the October 15 report (that is, 41.5% and 58.5%, respectively), d) only dealers trade bills, FRNs, and TIPS in the IDB market, and e) the likelihood of dealer and non-dealers trading with one another in the IDB market solely reflects their shares of overall volume.

# C&S: Evolution of Market Participants

- Strong presence of PTFs (CCP non-members) on IDBs
  - Trade large volumes intraday but have small overnight positions
  - Trading on flash rally saw a manifold increase compared to the average daily volume

**Cash Treasury Volume by Firm Type**

| Firm Type | 5 Year | 10 Year | 30 Year |
|---|---|---|---|
| Asset Manager | 0.1% | 0.1% | 0.0% |
| Bank/Dealer | 38.4% | 34.7% | 40.5% |
| Hedge Fund | 4.8% | 3.9% | 9.4% |
| PTF | 52.6% | 56.3% | 46.6% |
| Non-bank Dealer | 4.2% | 5.0% | 3.5% |
| **Avg Daily Volume ($ millions)** | **53,077** | **44,088** | **9,860** |

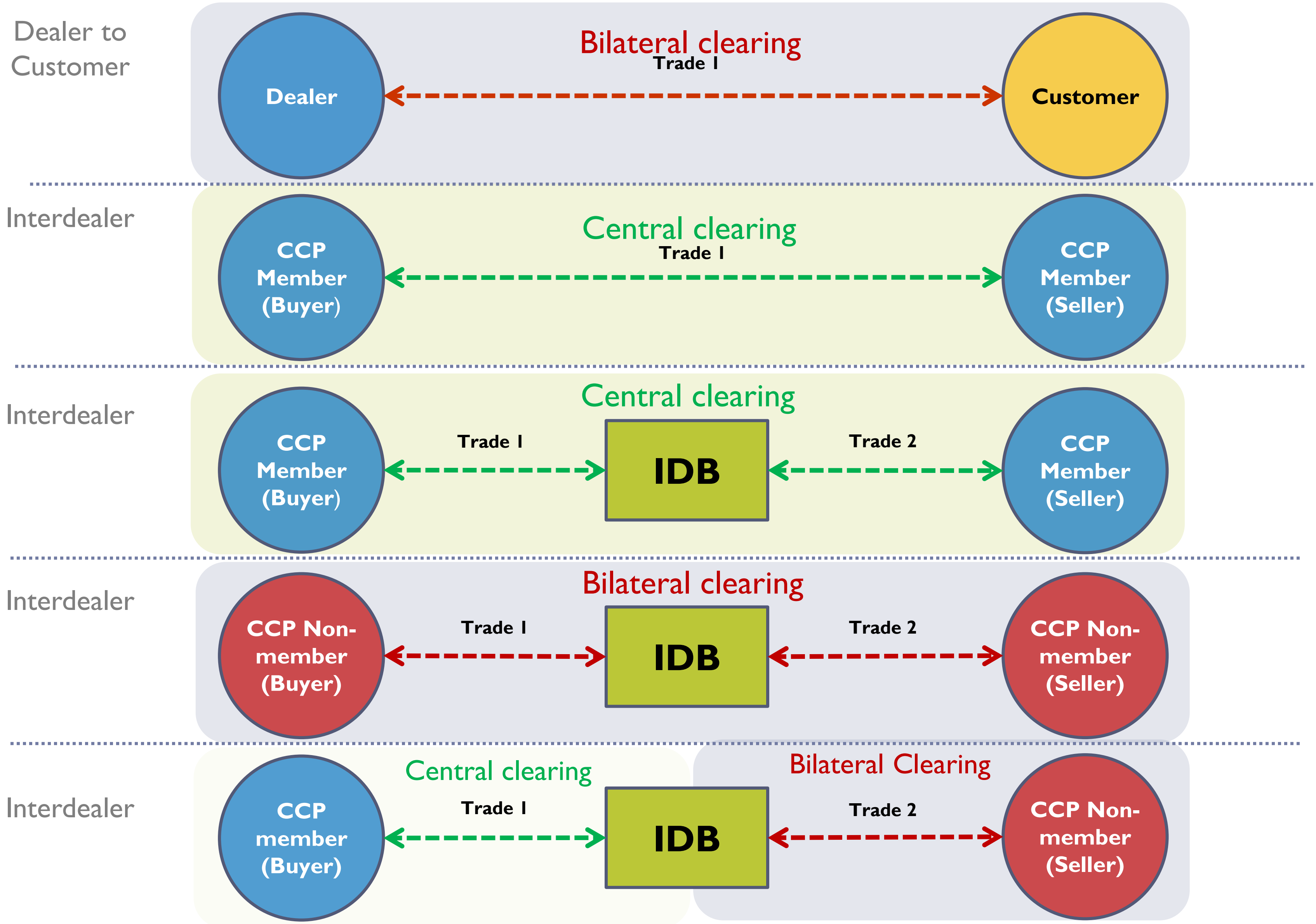
Note: Control days: 04/02/2014 - 04/17/2014
Source: Joint Staff Report, based on data from BrokerTec

**Cash Treasury Volume on October 15 by Firm Type**

| Firm Type | 5 Year | 10 Year | 30 Year |
|---|---|---|---|
| Asset Manager | 0.0% | 0.0% | 0.0% |
| Bank/Dealer | 30.1% | 35.7% | 40.6% |
| Hedge Fund | 9.0% | 5.6% | 6.0% |
| PTF | 57.1% | 54.8% | 51.4% |
| Non-bank Dealer | 3.9% | 3.9% | 2.0% |
| **Total Volume ($ millions)** | **150,386** | **123,198** | **21,915** |

Note: Unless otherwise noted, tables are based on entire trading session, 19:30 prev. day – 17:30 ET
Source: Joint Staff Report, based on data from BrokerTec.

# Trades in Treasury Cash Market




**Bilateral clearing:** Credit risk managed by counterparties bilaterally; clearing completed by T+1

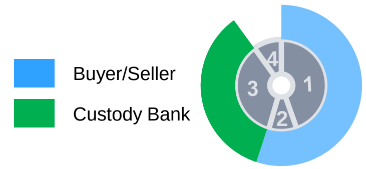
**Central clearing:** Credit risk transfers rapidly to CCP on novation which occurs within minutes of execution on T+0

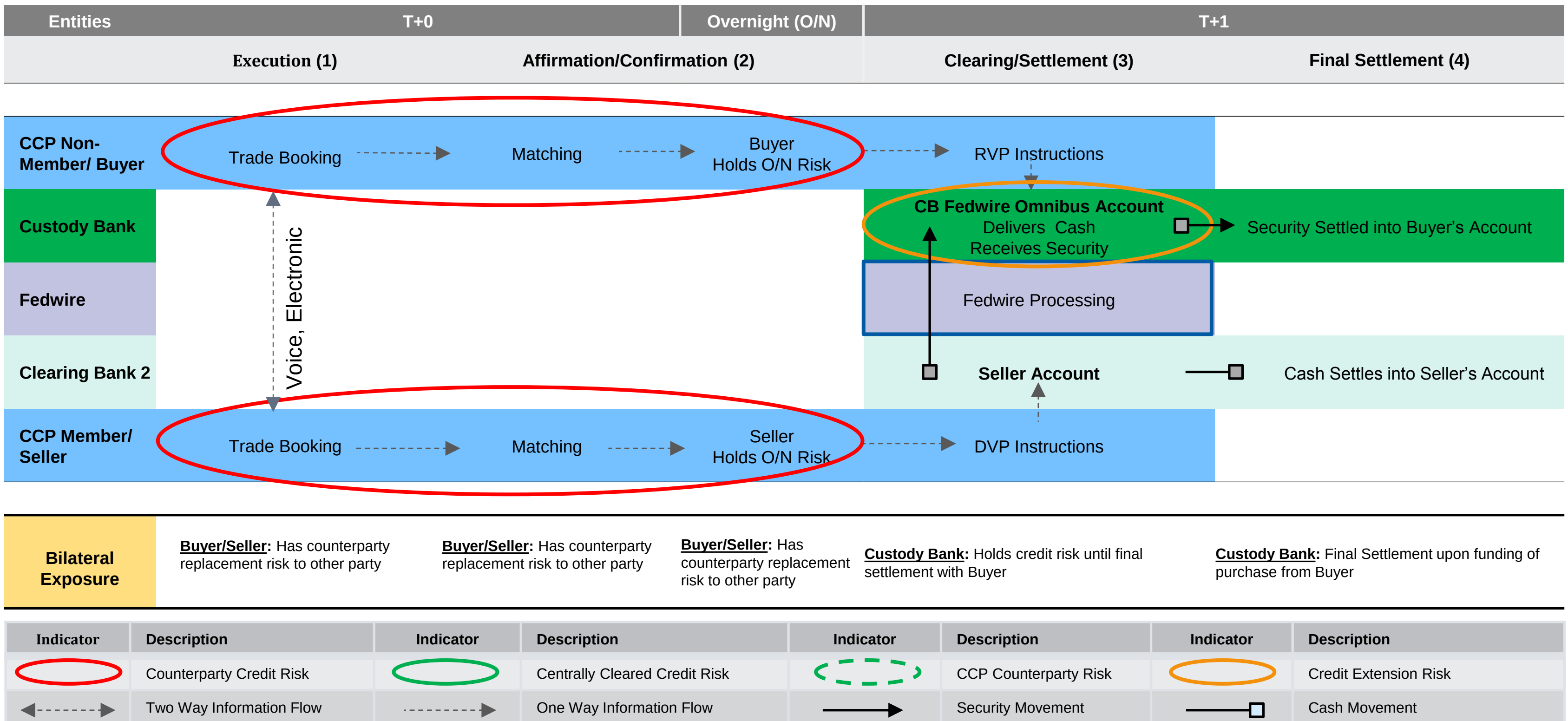
# C&S: Process Flow Maps

- TMPG developed a set of maps that illustrate the detailed clearing and settlement processes in the secondary market for Treasury securities
- Details include
  - Trade life cycle stages
  - Participants involved in different stages
  - Timeline
  - Information flows and movements of cash or securities
  - Identification of exposures in both bilateral and central clearing

# Figure 1A: Bilateral Clearing (no IDB)

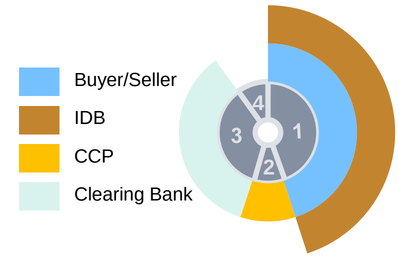
## CCP member selling to CCP non-member; bilateral clearing

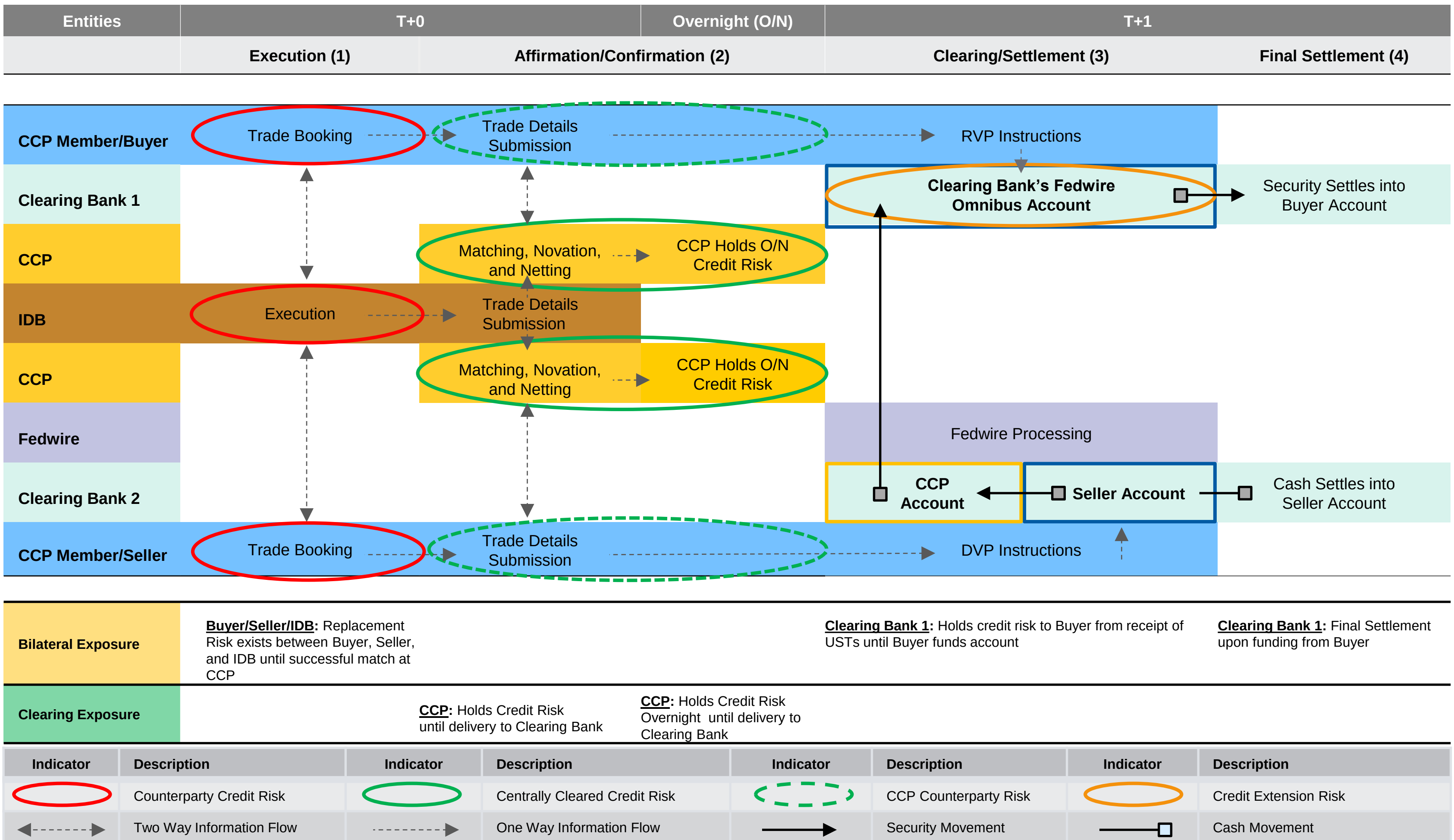


# Figure 3: Central Clearing (IDB)

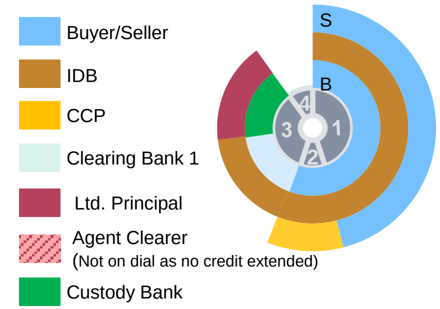
## Two CCP members trade via IDB; central clearing

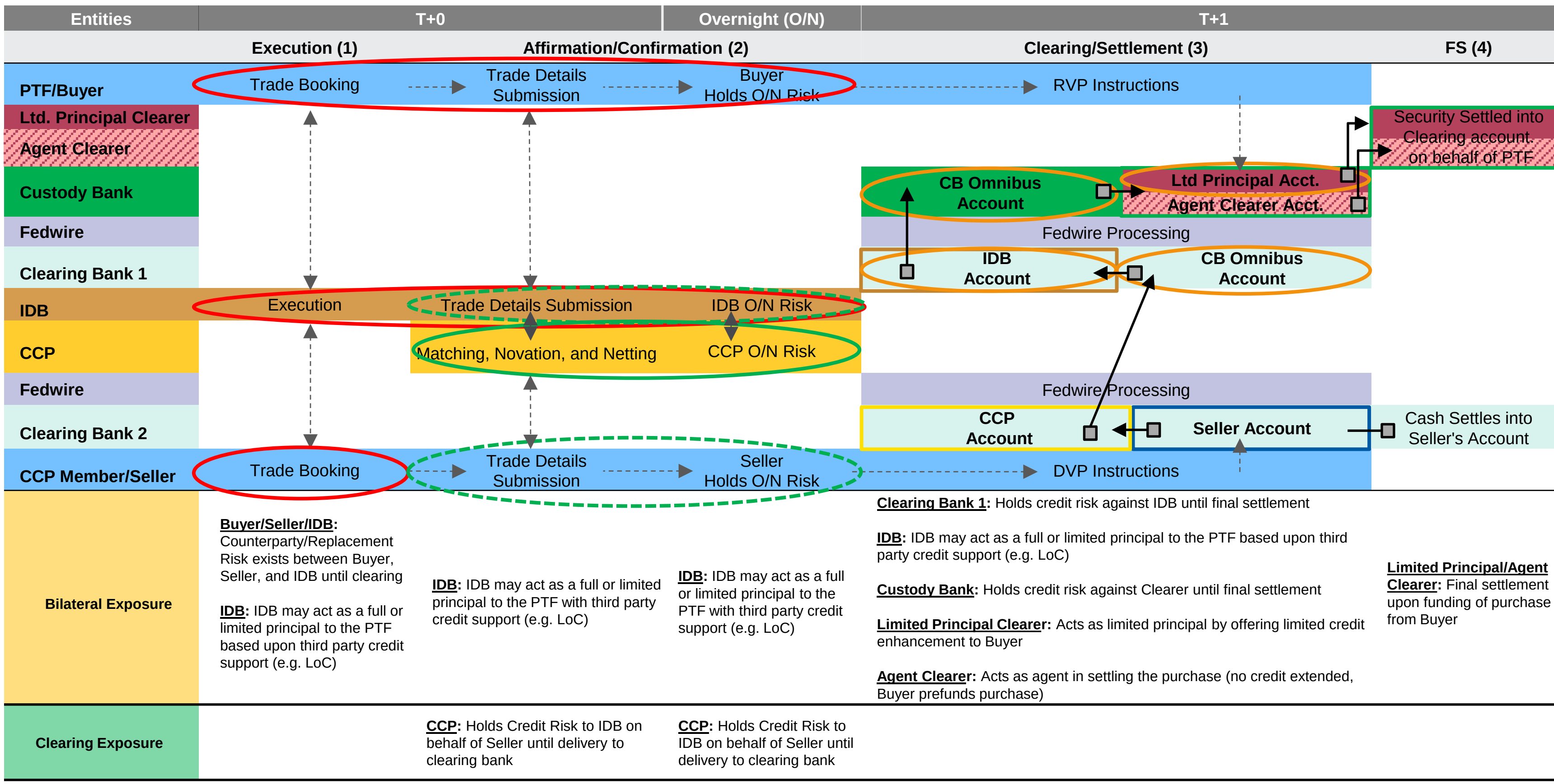


# Figure 5A: Hybrid Clearing (IDB)

## CCP member and CCP non-member trade via IDB; bilateral and central clearing




| Indicator | Description | Indicator | Description | Indicator | Description | Indicator | Description |
|---|---|---|---|---|---|---|---|
| | Counterparty Credit Risk | | Centrally Cleared Credit Risk | | CCP Counterparty Risk | | Credit Extension Risk |
| | Two Way Information Flow | | One Way Information Flow | | Security Movement | | Cash Movement |

# C&S: Preliminary Risks Identified in Current Clearing Structure

- Market participants may not be applying the same risk management rigor to their US Treasury clearing and settlement activities as they do to other aspects of risk taking
  - Counterparty credit risk incurred indirectly through the clearing chain may not be transparent to participants in the market
  - Role of IDB platforms and the associated risks have evolved and are not well understood by all market stakeholders
  - Risk management practices may not have kept pace with market evolution, particularly in a high-speed trading environment
  - Increased prevalence of bilateral clearing and use of bespoke risk management practices creates greater system-wide risk
  - Operational disruptions (e.g., from a cyber-attack or a flawed algorithm) may have systemic implications
  - Concentration risk related to limited number of IDBs and clearers that play an essential role
  - Some may not fully understand credit enhancement practices in bilateral settlement chain
  - Unmatched trades or delays in matching trades creates uncertainty about counterparty exposures
  - Risk management should contemplate gross value of trade as entire notional amount is required for settlement

# C&S: Consequences of Mispricing Risks

- Consequence of not recognizing and pricing clearing and settlement risks
  - Defaults have the potential to create systemic risk given the importance of the Treasury market
  - Default of dominant IDB (80 percent share) would result in a loss of a key execution platform for Treasury trading and a transparent source of pricing information for benchmark securities
  - Loss mutualization may expose CCP members to non-members in unexpected ways

# Next Steps

- TMPG engaged in a public comment period to get feedback on the following elements:
  - accuracy and completeness of clearing and settlement processes described
  - risk and resiliency issues identified, and
  - any other observations or suggestions
- TMPG expects to finalize the White Paper following the consultation period and may develop best practice recommendations around clearing and settlement

# Appendices and Resources

# Resources

- Consultative White Paper on Clearing and Settlement
  - https://www.newyorkfed.org/medialibrary/Microsites/tmpg/files/CS-PressRelease-071218.pdf
- Best Practices (updated January 2018 to include guidance on information handling)
  - https://www.newyorkfed.org/medialibrary/Microsites/tmpg/files/TMPG_BestPractices_012218.pdf
- Best Practice Recommendations on Information Handling with Illustrative Examples
  - https://www.newyorkfed.org/medialibrary/Microsites/tmpg/files/TMPG_Info_Sharing_Examples.pdf
- Synopsis of TMPG Recommendations (2007-2017)
  - https://www.newyorkfed.org/medialibrary/microsites/tmpg/files/Synopsis-TMPG-Recommendations-092017.pdf
- Liberty Street Economics Blog Post
  - http://libertystreeteconomics.newyorkfed.org/2017/09/the-treasury-market-practices-group-a-consequential-first-decade.html
- FRBNY Staff Report: The Treasury Market Practices Group: Creation and Early Initiatives
  - https://www.newyorkfed.org/research/staff_reports/sr822.html