

TMPG Meeting Minutes

December 19, 2016

TMPG attendees

| | | |
|----------------------------------|---|--------------------------------|
| Julia Coronado (Graham Capital) | Ari Kavour (Wells Fargo) | Kourtney Gibson (Loop Capital) |
| Dan Dufresne (Citadel) | Edward McLaren (Bank of America) | Ryan Sheftel (GTS) |
| Deirdre Dunn (Citigroup) | Steven Meier (State Street Global Advisors) | James Slater (BNY Mellon) |
| Mike Garrett (Wellington) | Giuseppe Nuti (UBS America) | Stu Wexler (ICAP) |
| Beth Hammack (Goldman Sachs) | Sandie O'Connor (JPMorgan Chase) | Thomas Wipf (Morgan Stanley) |
| Gary Kain (AGNC Investment Corp) | Murray Pozmanter (DTCC) | |

FRBNY attendees

| | | |
|---------------|----------------|-------------------|
| Nashrah Ahmed | Christina Getz | Brett Rose |
| Chris Burke | Lorie Logan | Janine Tramontana |
| Michelle Ezer | Radhika Mithal | Nate Wuerffel |
| Josh Frost | Simon Potter | |

SIFMA attendees

| | |
|-----------|-------------|
| TR Lazo | Randy Snook |
| Tom Price | Rob Toomey |

U.S. Department of Treasury attendee

James Clark

- The meeting commenced with a welcome to new members Ryan Sheftel from Global Trading Systems and Sheryl King from the Bank of Canada. The schedule for [2017 TMPG meetings](#) was confirmed. The Chair then introduced representatives from Securities Industry and Financial Markets Association (SIFMA).
- The SIFMA representatives updated the TMPG on the preparedness work of its Market Response Committees for the fixed income and equity markets and the recommendations¹ of these standing committees regarding market closures (see presentation in Appendix). SIFMA representatives reported that the Committee's proposed policy is that, absent the extraordinary circumstance of a Fedwire[®] Services² closure, SIFMA would recommend that the U.S. fixed income markets remain open during crisis events.³ The TMPG was informed that SIFMA's current expectation is that significant market participants and critical market infrastructure providers for the fixed income markets (for example, central clearing and settlement entities and trading platforms) have the necessary capabilities/procedures to operate, either through

¹ This update follows previous SIFMA presentations to the TMPG on business continuity issues.

² Fedwire Services include the Fedwire Funds and the Fedwire Securities Services that banks, businesses and government agencies rely on for critical, same-day funds and securities transfers. 'Fedwire' is a registered service mark of the Federal Reserve Banks. A complete list of marks owned by the Federal Reserve Banks is available at FRBservices.org.

³ SIFMA noted that it is still working to determine the policy for certain exceptions to this principle including Good Friday when Fedwire Services is open but fixed income markets tend to be closed.

geographically diverse secondary sites or otherwise, during crises. The SIFMA representatives also briefly discussed their recommendations for the U.S. equity market and procedures established by its Business Continuity Planning Committee. It was noted that SIFMA would publish its revised market response policy in the coming weeks.

The TMPG supported SIFMA's views that participants in the fixed income market should be expected to operate during crisis events and recommendations for fixed income market closure should be extraordinary events and not the result of, for example, regional weather events. Members observed that establishing clear and transparent criteria for convening the Market Response Committees reduces uncertainty and conveys preparedness expectations for market participants. The TMPG commended SIFMA for their approach to keeping fixed income markets open and developing clear criteria for market closure recommendations. Members encouraged SIFMA representatives to socialize their policy broadly and raise awareness of participants across various segments of the market. Following this discussion, SIFMA representatives left the meeting.

- The TMPG discussed recent market developments, including market expectations for the future path of domestic monetary policy following the December FOMC, expectations for money market functioning following implementation of money fund reform and over year-end, and assessments of ongoing global financial and political risk events.
- Members then received an update from the information handling working group. The TMPG discussed certain draft best practice recommendations, including a proposed recommendation on communication of information handling practices to counterparties. The TMPG suggested that the working group continue refining the draft best practices and consider drafting an accompanying release with additional information and examples related to information handling. Members were requested to provide additional feedback following the meeting.
- Next, the working group on clearing and settlement provided an update. Members were informed that the working group had begun delineating the various elements (e.g., products, market participants, and types of flows) for an initial set of clearing structure maps for the cash market for Treasury securities. The TMPG provided feedback on the work underway and supported the working group's recommendation to invite repo clearing solution providers at a future TMPG meeting.
- Finally, the TMPG had a follow on discussion from the [November meeting](#) on improving the quality of tri-party repo data to support a more comprehensive and accurate view for supervisors into the tri-party repo market and to aid in the development of more robust benchmark rates. TMPG members agreed to consider developing a best practice recommendation designed to reduce inconsistencies in reporting repo trade ticket information,

particularly around identifiers for collateral type and open trades; a more specific proposal will be reviewed at an upcoming meeting.

- The next TMPG meeting is scheduled to take place on Thursday, January 19th, 2017 from 3:00-5:00 PM.



Invested in America

FIXED INCOME, EQUITY MARKET RESPONSE AND SIFMA BCP PROCEDURES

DECEMBER 2016

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Background and Committee Structure

Background to SIFMA's Business Continuity Planning (BCP) and Market Response Committees

- Following the September 11 attacks, SIFMA organized Business Continuity Planning committees and incident response procedures to help ensure industry readiness and coordinate the industry response to emergencies
- After Hurricane Sandy, SIFMA created formal Market Response Committees for the Fixed Income and Equity Markets to deliver recommendations in the event of a disruption that may affect fair and orderly market operations
- Market Response Committees use a well-defined decision tree process to deliver recommendations, developed in dialogue with industry participants/stakeholders

Committee Roles

- Business Continuity Planning Committee and BCP incident response procedures provide for continuous monitoring, evaluation, and communications throughout an incident, connecting firms, trade associations, and regulators
- Market Response Committees are convened specifically for the purpose of delivering recommendations, including closure if necessary, in the event of a disruption that may affect fair and orderly market operations. Committee representatives are nominated by the SIFMA board and speak on behalf of their firm in delivering any recommendations

Market Response Committee Purpose & Objective

- **Fixed Income Market Response Committee:**

- **Purpose:** To determine if the issuance of a special trading or settlement recommendation is warranted with respect to U.S. dollar denominated OTC fixed income cash, securities financing and securities lending markets
- **Scope of Recommendation:** SIFMA recommendations have applied to “trading of U.S. dollar-denominated government securities, mortgage- and asset-backed securities, over-the-counter investment-grade and high-yield corporate bonds, municipal bonds and secondary money market trading in bankers’ acceptances, commercial paper and Yankee and Euro certificates of deposit.” (from SIFMA calendar press releases)
- **Objective:** To provide market participants and other global market participants that are linked to the US Fixed Income Markets with the necessary guidance to prepare for and/or respond to the crisis
- **Committee Formation & Authority:** Representatives (one primary and one back up) to the Committee are appointed by SIFMA’s Board of Directors. There are also representatives from the key infrastructure providers and other key market participants for the fixed income markets including: DTCC, the clearing banks, inter-dealer brokers/electronic trading platforms and the public sector. The individuals from all participants have sufficient seniority within their institutions to speak on behalf of their firm or agency about recommendations for potential market actions

- **Equity Market Response Committee:**

- **Purpose:** To collectively discuss, evaluate, and communicate the proper course of action for the US Equity Markets, including closure if necessary, in the event of a disruption that may affect fair and orderly operations
- **Objective:** To provide market participants and other markets (e.g., options, futures, etc.) that are linked to the US Equity Markets with the necessary guidance to prepare for and/or respond to the crisis
- **Committee Formation & Authority:** Representatives (one primary and one back up) to the Committee are appointed by SIFMA’s Board of Directors. There are also representatives from equity exchanges (cash and options), market utilities, and regulators. The individuals from all participants have sufficient seniority within their institutions to speak on behalf of their firm or agency about recommendations for potential market actions

Convening the Market Response Committees

- **Convening the market response committees is an extraordinary event and these procedures recognize and assume that market participants and critical market infrastructure providers (including Fedwire, FICC, DTCC, exchanges, clearing entities) have the necessary capabilities/procedures to operate, either through access to secondary sites or otherwise, during events that in the past may have necessitated market closures (including, but not limited to, severe weather events in the NYC area)**
- The process will typically be kicked off by a crisis event either internal or external to the markets that impacts the critical infrastructure supporting market functioning
- Some examples of threats that could lead to disruption of critical market infrastructure are:
 - Natural disaster
 - Public infrastructure outages (e.g., power, water)
 - Pandemic or infectious disease
 - Terrorist Attack / Acts of War / Civil Unrest
 - Cyber Attack
 - Disruptions of Equity or Fixed Income Operations (e.g., SIP Failure, Financial Utility Disruption)
 - Declaration of a National Holiday
- The process is structured so that the two committees can meet together or independently based on the situation

Convening the Market Response Committees (cont.)

- SIFMA can be made aware of the need to convene the committees via a number of different mechanisms:
 - Recommendations from SIFMA Members
 - SIFMA Committee Leadership (Equity Markets & Trading Committee, Primary Dealers Committee, etc.)
 - Two Members of Equity or Fixed Income Market Response Committees
 - Recommendation from Treasury, SEC or FRB
 - SIFMA staff leadership (CEO or Principal Staff Advisor) based on information gathered from applicable points of contact (e.g., BCP and other member committees, government agencies, and FS-ISAC)
- Committee Unable to Convene:
 - In the unlikely event that the Committee is unable to convene, the Committees grant SIFMA's CEO (or in his or her absence, the Principal Staff Advisor to the Committee) independent authority to issue recommendations (Fixed Income Only) and take any other reasonable actions (Equity/Fixed Income)
 - In this case the SIFMA representative would expend all efforts to consult with representatives from members, the official sector (regulators/supervisors) and infrastructure providers

Guiding Principles – Fixed Income Markets

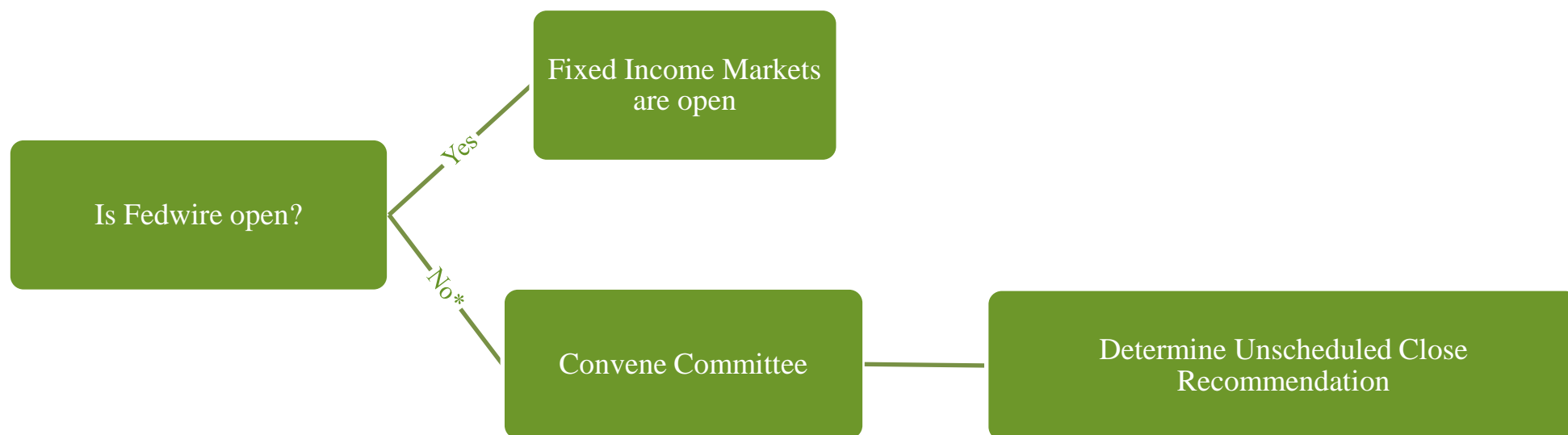
- **Fedwire is the Key Driver of Market Close Recommendations: If Fedwire is operational SIFMA will not recommend a market close.** If Fedwire is not operational because of a unscheduled disruption, the Committee will convene to determine an unscheduled close recommendation. We note that primary dealers will be required to be open to serve the needs of the Treasury and the Federal Reserve Bank of New York notwithstanding a widespread disruption in the New York City area*
- **Unscheduled Closing is Absolutely Extraordinary:** Absent extraordinary circumstances (*i.e.*, unscheduled closing of Fedwire), the U.S. fixed income markets, should remain open. The expectation is that market participants and critical infrastructure providers will fail over to secondary (and in some cases, tertiary) sites and that unscheduled closings will be unnecessary. **Market participants should develop appropriate fail over capabilities to support market functioning**

* “A primary dealer must also have a robust business continuity plan and be able to interface with the New York Fed, FICC-GSD, and its clearing organization from an alternate location staffed by trained personnel. Primary dealers’ disaster recovery capabilities, as reflected in their business continuity plans and routinely tested, should ensure that robust end-to-end participation in New York Fed’s trading desk operations and Treasury auctions (including trading, clearing and settling) will occur even amid a wide-scale disruption in the firm’s primary location by employing geographic dispersion between primary and secondary locations.” Federal Reserve Bank of New York, *Administration of Relationships with Primary Dealers*, March 24, 2016

Guiding Principles – Fixed Income Markets (cont.)

- **Resumption Recommendation:** If there is an extraordinary market close recommendation in connection with an unscheduled close of Fedwire, the Committee should recommend resumption of trading as soon as practicable after a reopening of Fedwire. Such a recommendation should take into account the time of day, expectations of market participants, coordination with other parts of the market (e.g., futures). The Committee should ensure key stakeholders and infrastructure providers are in a position to allow for a smooth and continuing resumption. In addition, the Committee may provide guidance to the market to ensure smooth resumption of activity if a segment of the market reopens after an unscheduled close while the cash market remains open
- **Impact of Disruptions of Other Fixed Income Market Infrastructure:** If Fedwire is operational, but other key fixed income market infrastructure (i.e., FICC or Clearing Banks) is impacted, the Committee will likely make recommendations for changes to settlement conventions and other post trade issues while the fixed income markets remain open
- **Impacts on Global Fixed Income Markets:** The Committee should always consider the effects that unscheduled market closure/adjustments to settlement could have on the global fixed income cash markets, securities financing markets and securities lending markets and not only the effects to a specific geographic region

Fixed Income Markets: Unscheduled Close Decision Tree

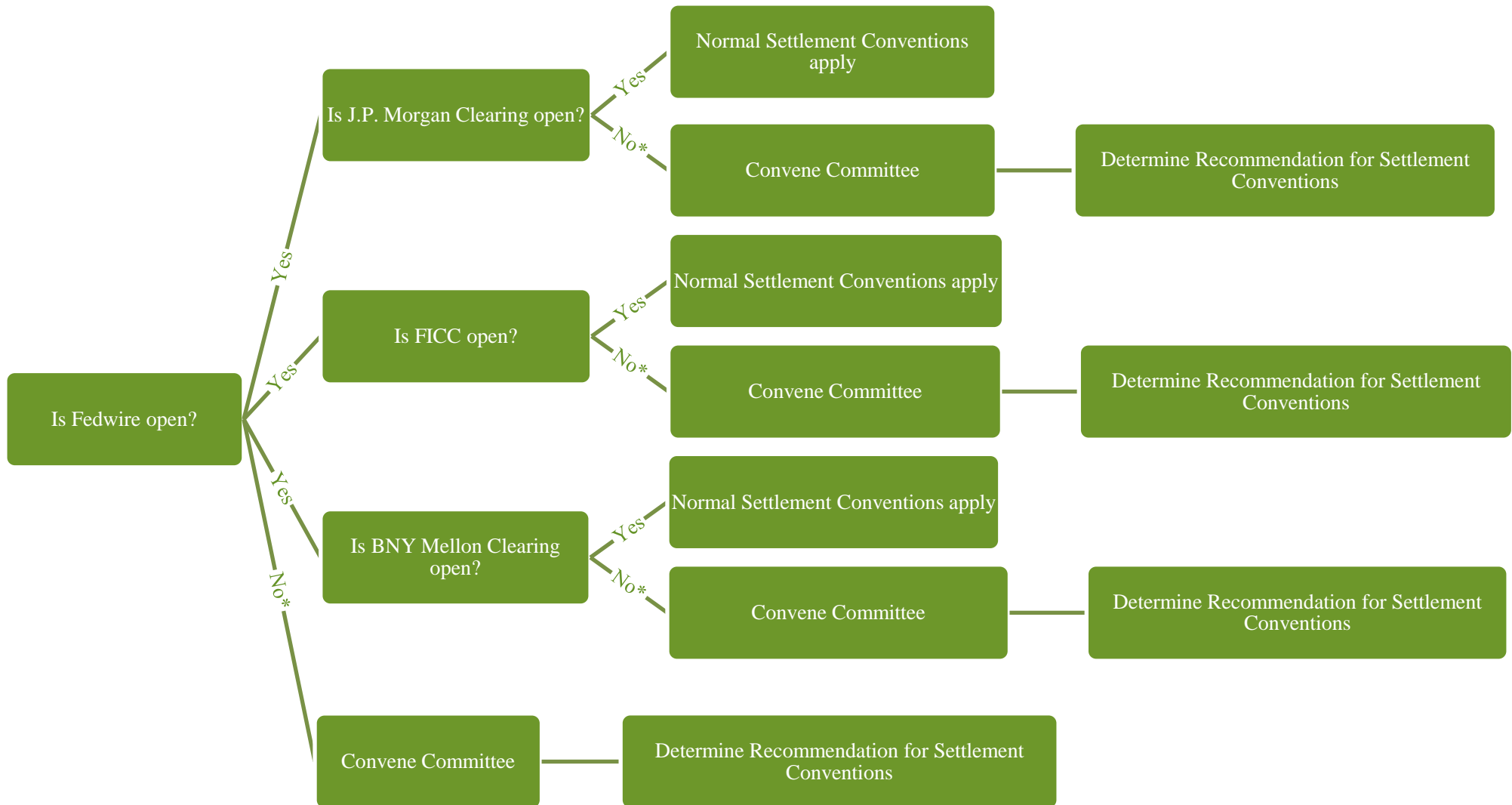


Notes:

- **National Day of Mourning:** Usual practice is that, notwithstanding that Fedwire is open on a National Day of Mourning, fixed income markets will be closed. Consistent with past practice, SIFMA would recommend that primary dealers provide sufficient staffing to accommodate NY Fed operations. At the Committee's discretion, an open with an early close may be appropriate if the National Day of Mourning occurs on the Friday preceding or the Tuesday succeeding a three day weekend
- **Good Friday:** Notwithstanding that Fedwire is open on Good Friday, fixed income markets will usually be closed. Consistent with past practice, SIFMA would recommend that primary dealers provide sufficient staffing to accommodate NY Fed operations. If Good Friday occurs on the day the Employment Report is published, FI markets are opened for a shortened day (usually a noon recommended close)

* (unscheduled close/material disruption/failure of resiliency plan)

Fixed Income Markets: Settlement Conventions Decision Tree



Note: Expectations are that these entities have resilient and tested fall over capabilities and therefore unscheduled closures/material disruptions should be extraordinary. We note the BCP principles in the *IOSCO/BIS Principles for Financial market infrastructures* (April 2012 at <http://www.bis.org/cpmi/publ/d101a.pdf>). These include continued testing and review of BCP plans and the maintenance of secondary sites that would not be affected by an event that affects a primary site. Secondary sites are expected to have robust resilience as well.

Fixed Income Markets: Settlement Conventions Considerations

- **Fedwire Unscheduled Disruption:** If there is a closure/material disruption at Fedwire necessitating a market closure, settlements that would have been made on the day of disruption would be scheduled on the day the Fedwire resumes operations (*i.e.*, settlements roll to next day). If Fedwire resumes operations mid-day, the Committee may be asked to provide guidance/recommendations as to possible settlement changes
- **Other Settlement Recommendations:** In the unlikely event that there has been a material disruption in the operations of any key infrastructure providers, the Committee will be asked to opine on possible recommendations for adjustments to settlement conventions
- **Regulatory Consultation:** Any potential adjustments to settlement time frames should be reviewed fully with official sector representatives including at the U.S. Treasury, SEC, Federal Reserve, CFTC
- **Impacts:** Consideration should be given to possible impacts/required changes to: (1) any regulatory mandates; (2) books and records requirements; and (3) legal/contractual arrangements
- **Considerations:** In developing any recommendations to adjust settlement conventions, the Committee should consider the following, focusing in particular on non-disruptive resumption of trading and settlement:
 - Length of time of any cessation of trading
 - Length of time of material disruption at key infrastructure providers
 - Time of day of resumption (if not at the beginning of a day)
 - Levels of settlement fails in the system
 - Expected volumes/activity
 - Regulatory requirements

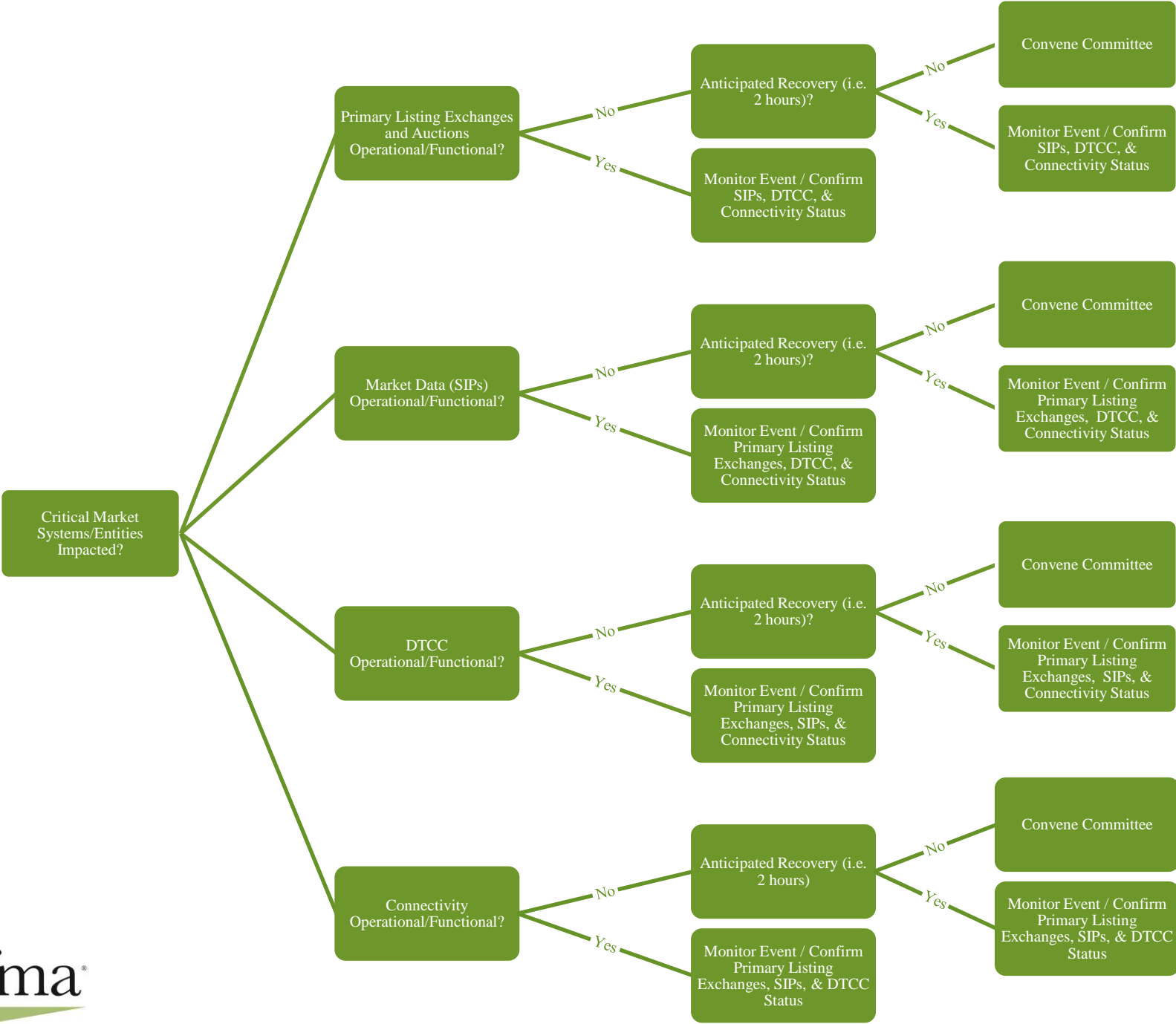
Equity Markets: Convening Market Response Committee

- **Guiding Principle:**
 - Any market response decision should be made with a bias toward keeping the equity markets open
- **Market Incident/Event:** The process will be initiated in response to a significant event, which may be either internal or external to the markets
 - *Event Scope:* Any event that may/has (1) resulted in widespread systemic disruption to critical market systems, and/or (2) impeded the ability of the equity markets to operate with integrity
 - *Additional Considerations:* In certain circumstances, the Equity Market Response Committee will convene immediately, for example an act of war or cyber attack
- **Event Examples:**
 - Cyber Attack
 - Terrorist Attack / Acts of War
 - Significant Disruption of Equity Operations (Failure of Critical Market Systems with Inability to Recover)
 - Failure of Connectivity Infrastructure

Equity Markets: Key Considerations - Evaluation of Critical Systems/Entities

- **Critical Systems/Entities:** Certain systems/entities pose greater risk to the markets in the event of an issue/disruption and therefore are of paramount importance to the proper functioning of the U.S. securities markets:
 - *Primary Listing Exchanges/Opening & Closing Auctions:* NYSE, NASDAQ, BATS
 - *Market Data/Securities Information Processors (SIPs):* Tape A/B (CTA Plan SIPs - NYSE, NYSE ARCA, NYSE MKT, BATS Listed), Tape C (UTP Plan SIP - NASDAQ Listed)
 - *Clearing Agencies:* Depository Trust & Clearing Corporation (DTCC)
 - *Connectivity:* Telecommunications Providers, Energy Suppliers
- **Factors to Consider:** Following an event, SIFMA will consider the following factors before convening the Equity Market Response Committee:
 - How many critical systems/entities impacted?
 - Is the system/entity operational/online? If not, will the system/entity be able to failover to DR on schedule (e.g. 2 hours per Reg. SCI)?
 - Is market data corrupted or potentially corrupted? Is price discovery compromised?
 - Is the entity and/or any of its related systems experiencing persistent or intermittent disruptions (trade processing, confirmations, dissemination of market data, etc.)?

Equity Markets: Market Response Decision Tree



Committee Representatives

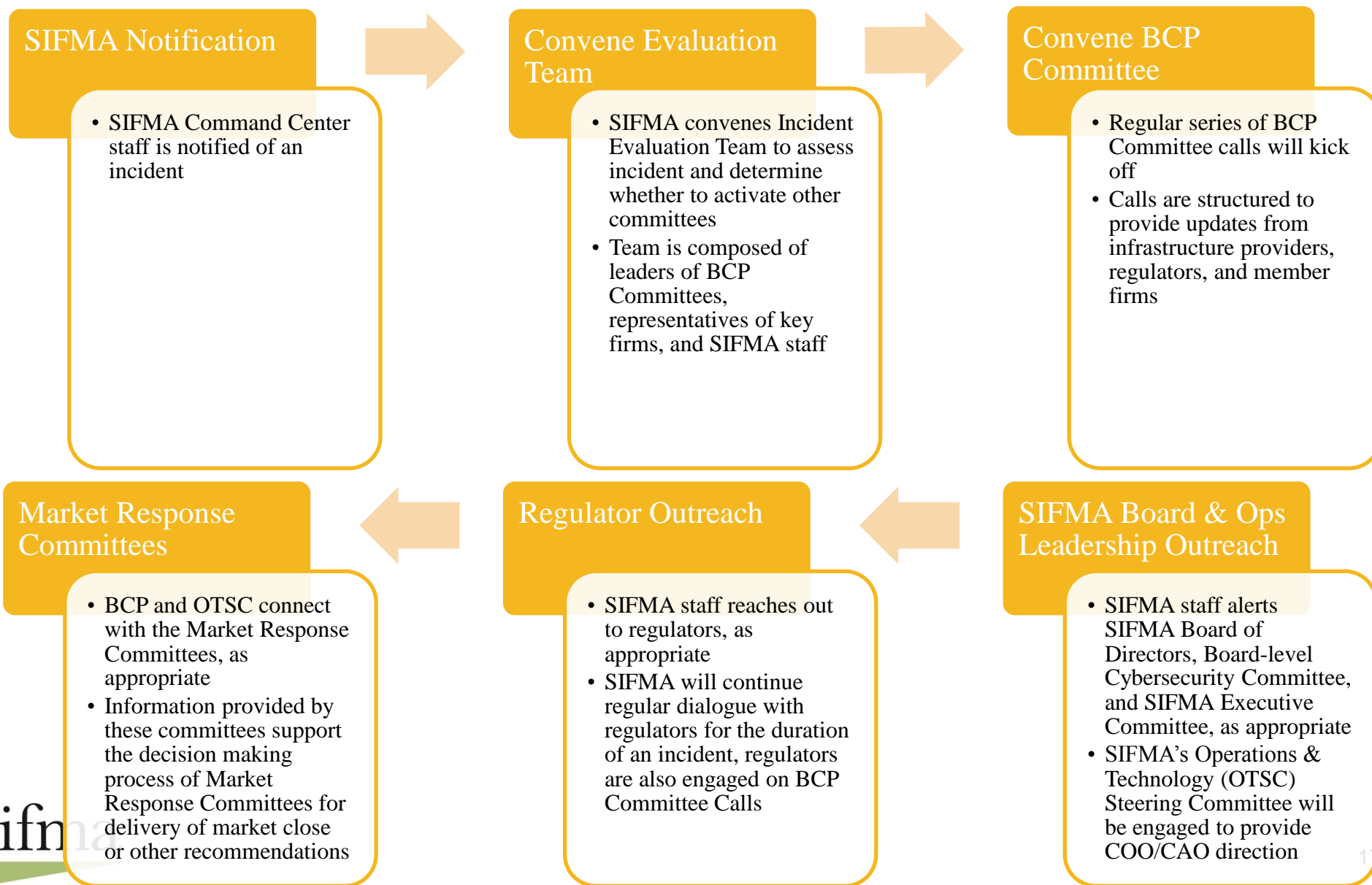
- **SIFMA Member Firms:**
 - The firms represented on the Equity Market Response Committee and the Fixed Income Market Response Committee vary in size and activities, from across the industry
 - The composition of the committees will change annually based on the composition of the SIFMA Board
- **Market Exchanges, Utilities, Trades and Public Sector:**
 - The committees include exchanges, financial market utilities, trades and regulators represented, covering all key functions within the Equity and Fixed Income Markets
- **SIFMA Employees:**
 - SIFMA staff are trained to convene and guide the processes outlined in this document including senior leadership and primary staff advisors

Business Continuity Planning Committee Purpose & Objective

- **Business Continuity Planning (BCP) Committee:**
 - **Purpose:** To collectively discuss, evaluate, and communicate information around disruptions to the markets, market infrastructure, or critical physical infrastructure to market participants, and provide information to support the decision making processes of SIFMA's Market Response Committees
 - **Objective:** Ensure that market participants and other SIFMA committees have the necessary information to respond to disruptions that could affect the functioning of the market and/or the safety of their staff
 - **Committee Formation & Authority:** The Committee reports to SIFMA's Operations and Technology Steering Committee (OTSC), which is the most senior ops & tech committee within SIFMA and is itself nominated by SIFMA's Board of Directors. The committee works in partnership with market infrastructure providers, regulators, and emergency management organizations such as the New York Office of Emergency Management and Northeast First
 - **Testing and Exercises:** SIFMA regularly organizes drills and tests to exercise our BCP procedures and playbooks; these are carried out both internally and with external partners
 - **External Coordination:** SIFMA's BCP planning activities are closely coordinated with a range of external partners, including the FS-ISAC, exchanges and utilities, regional Offices of Emergency Management (OEMs), and regulators and supervisors

Emergency Command Center Response Procedures

SIFMA has established a series of emergency procedures for the BCP committee in the event of an incident which could affect the functioning of the market and/or the safety of staff. These procedures provide a framework for notification, assessment, review by committees, dialogue with regulators and emergency management agencies, information sharing, and the delivery of information to support the decision making processes of the SIFMA Market Response Committees



BCP Command Center Composition

SIFMA's BCP Committee brings together a broad range of SIFMA member firms, utilities and exchanges, and other trade associations.

Participants on the BCP Committee include:

| Key Member Firms | Trade Associations | Exchange / Utility | Regulators |
|---------------------------------|--------------------|------------------------------|-----------------------|
| Bank of America – Merrill Lynch | ABA | BATS Global Markets Inc | CFTC |
| Bank of New York - Mellon | FIA | Bloomberg | FRB-NY |
| BNP Paribas | FS-ISAC | CBOE | Federal Reserve Board |
| Citi | FSR - BITS | CME Group | FINRA |
| Edward Jones | ICI | ICE | FSR / BITS |
| Goldman Sachs | SEC | ISE | ICI |
| HSBC | | NASDAQ | SEC |
| JPMorgan Chase | | NASDAQ PHLX | The Clearing House |
| Morgan Stanley | | NYSE Euronext | Treasury |
| | | Options Clearing Corporation | |
| | | SEF representative | |
| | | DTCC | |
| | | FRBNY - Fedwire | |

BCP Committee Size and Composition

The BCP Committee includes over 430 individuals, representing over 150 organizations.

Firms on the committee cover the full range of SIFMA's membership, covering both buy and sell side firms, institutional and retail business models, and global banks to regional firms.

Communicating the Recommendation

- The Market Response Committee's recommendations (e.g., a unscheduled market close recommendation) shall be announced in a press release by SIFMA and posted on SIFMA's website. SIFMA's notification will not be exclusive, and may be supplemented by notices from other industry participants
- The goal will be to disseminate the recommendation as broadly as possible using all available channels
- In addition, a key consideration will be impact on trust and confidence within the markets by firm clients. Depending on the recommendation, further communication processes may be kicked off in order to calm markets and maintain confidence in the markets ability to respond to the crisis and to recover in a timely manner
- These additional communication processes will occur via a coordinated plan between the public and private sector

Next steps: publication, maintenance, testing

- **Publication/Distribution:** SIFMA will publish these principles, including the firm composition of the Committees, the expectations for key market participants and the approach to market closures/adjustments. These principles have been reviewed extensively by the Committees and SIFMA should be in a position to disseminate no later than the end of January 2017. SIFMA will further socialize at all relevant committee meetings to ensure that market participants adjust internal plans accordingly
- **Refresh Committees:** Coincident with the re-constitution of SIFMA's Board each year in October, the Committees' composition will be refreshed with firms new to the SIFMA Board designating appropriate individuals
- **Scheduled Committee Calls-January, July:** Market Response Committee calls will be scheduled for January and July each year. The purpose of these calls will be to test the notification/connection process and to review the function of the committees and solicit feedback on the principles/approach to decision making
- **Core Leadership Group:** SIFMA has formed a Core Leadership Group (four representatives from each of the FI and Equity Committees, two representatives from the Business Continuity Planning Committee; representation reflects the broad constituencies within the market response committees including large dealing firms, infrastructure providers, regional firms and buy-side firms) to provide leadership during the periodic refresh calls and any event driven call. This group will also meet prior to the regularly scheduled full committee calls to review/validate the approach and assumptions. In addition, SIFMA staff expects to use this group as a resource in determining whether a call is necessary to address an event