

US Financial Reform Legislation & Regulations

Impact on the Derivative Markets

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Citi Speakers

U.S Financial Reform Legislation Overview—Sunil Harford, North America Head of Capital Markets

U.S Financial Reform Legislation Details—Robert Klein, Silas Findley, Legal, Capital Markets

Citi Clearing—Chris Perkins, Product Head of Prime Finance Clearing

Citi OTC Services—Bikram Singh, Product Head of OTC Derivative Services, Global Transaction Services

U.S Financial Reform Legislation—Overview

The Wall Street Reform and Consumer Protection Act demands changes that are far-reaching and will affect a wide range of market participants. The mechanics of implementation will be determined by the forthcoming rulemaking process, however, the broad implications of the Act are already apparent.

- **Corporate Governance**
- **Regulatory Oversight**
- **Systemic Risk Regulation**
- **Consumer Financial Protection**
- **Fiduciary Responsibility**
- **Proprietary Trading**
- **Other**
 - Mortgage Lending
 - Rating Agencies
 - Hedge Funds

U.S Financial Reform Legislation—Overview

The most dramatic changes will occur in the OTC Derivatives markets. The legislation can be broken down into 3 Key Segments— Oversight, Structure and Infrastructure

Oversight

Regulators

- Provides for significant regulatory supervision of dealers and major swap participants
- The regulatory bodies primarily responsible for oversight of the derivatives market going forward are the CFTC, the SEC, and the Federal Reserve Board.
- Responsibility is divided by type of derivative, though much of the authority is either shared, or rule making is predicated on joint decisions and/or consultation with the other parties.
- Reporting Requirements increase for all parties: Both pre and post trade reporting is required under the legislation
- Reporting requirements exist for both centrally cleared and OTC, non-cleared transactions
- There will be real time price and volume reporting requirements, and an established central repository for data.

Structure

Swap Push Out

- Bill allows depository institutions to continue to trade those swaps related to traditional banking business, including interest rate swaps, foreign exchange swaps, cleared investment grade credit derivatives, and certain precious metals
- Other types of swaps activity, including un-cleared or non-investment grade credit default swaps, equity and most commodity derivatives must be pushed out to an affiliate.
- Banks are allowed to use derivatives to hedge their business

Capital Requirements

- Clearing members will be subject to minimum capital requirements and other robust membership criteria
- Major Swap Participants and Swap Dealers will be subject to conservative capital adequacy and margin requirements
- In order to incent market participants to clear derivatives, there likely will be higher capital requirements on non-cleared transactions

Infrastructure

Participants

- Participants defined as a “Swap Dealer” or a “Major Swap Participant” (“MSP”) will be subject to new requirements, including registration, margin, capital and other various business conduct standards.
- Generally, non-financial end users hedging commercial risk will be exempt from the clearing requirement.
- If not exempt from the rules, Centralized Clearing will be required for all “standard” swaps
- Exchange Trading is mandated for all swaps that are required to be cleared
- Ownership of clearinghouses will be subject to rules regarding possible conflict of interest and other issues.
- Existing swaps are grandfathered from the clearing requirement
- Dealers must offer tri-party segregation for margin for uncleared trades

U.S Financial Reform Legislation—Details

Swap Definition

- The bill establishes broad coverage by defining a “swap” as any agreement, contract, or transaction that is, or in the future becomes, commonly known as a swap, followed by specific examples.
- The bill also defines “security based swaps” as swaps based on a single security, a narrow-based index of securities, or the occurrence/non-occurrence of an event relating to an issuer.
- The bill excludes from the definition of swaps sales of non-financial commodities for deferred delivery, so long as the transaction is intended to be physically settled.
- The bill includes foreign exchange swaps and forwards in the definition of swap unless the Treasury Secretary makes a determination that they should not be included (but even in that case, anti-fraud, reporting, and business conduct standards would continue to apply).
- The definitions exclude transactions where one party is a Federal Reserve Bank or a government agency backed by the full faith and credit of the federal government.

Treatment of Major Swap Participants

- Be subject to capital requirements
- Be required to register with CFTC and/or SEC, even if already regulated by bank regulators.
- Be subject to initial and variation margin requirements to be established by either prudential regulators or the CFTC/SEC.
- Be subject to business conduct rules that require transaction-specific disclosures and verification of counterparty’s status as an ECP, among other things.
- The bill further provides that dealers and major participants must provide daily transaction valuation for non-cleared swaps.

Central Clearing

- All swaps must be cleared unless an exemption applies. There are exemptions for the following: Swaps where one of the parties 1) is using the swap to hedge its commercial risk, 2) notifies SEC/ CFTC, and 3) is not a “financial entity”. Also exempt if no clearing organization is available to clear.
- A swap dealer is not permitted to act as a clearing member for customers unless registered as an FCM (for swaps) or a broker-dealer or security-based swap dealer (for security-based swaps). Clearinghouses will be subject to CFTC and/or SEC rules and oversight.

U.S Financial Reform Legislation—Details

Exchange Trading & Reporting

- If a class of transactions is subject to clearing requirement, it must be traded on an exchange or swap execution facility.
- Trading requirement does not apply if no exchange or execution facility makes the product available for trading.
- The bill defines a swap execution facility as a facility in which multiple participants have the ability to execute swaps by accepting bids/offers from multiple participants in the system. That and “core principles” for swap execution facilities leave little distinction from fully regulated exchanges.
- If a swap is not cleared, it must be reported to a swap repository or regulator.
- Dealer or major swap participant must report the swap if the other party is an end user. Regulators are to promulgate rules for public reporting of swap transactions and pricing information in as close to real time as is technologically practicable.

Segregation of Margin

- For un-cleared swaps: Dealers are required to segregate initial margin with an independent custodian if requested by counterparty.
- Dealers and major swap counterparties are required to notify counterparty that it has the right to require segregation of initial margin.
- Clearing houses will require margining of cleared positions.

Business Conduct Standards

- Swap dealers and MSPs will be subject to new business conduct standards to be adopted by the applicable regulators.
- Regulators have broad authority to set new business conduct standards that relate to: fraud, manipulation, and other abusive practices involving swaps, and otherwise to require diligent supervision of the swap dealer’s or MSP’s business.
- Regulators will require adherence to position limits.
- Rules will require swap dealers and MSPs to disclose to non-swap dealer and non-MSPs: Information about the material risks and characteristics of the swap. Any material incentives or conflicts of interest that the swap dealer or MSP may have.
- Upon request, swap dealers must provide the daily mark from the clearing organization for cleared swaps.
- Swap dealers must provide the daily mark for non-cleared swaps (even if not requested by counterparty).

U.S Financial Reform Legislation—Details

Business Conduct Standards— Continued

- Act requires new standards with respect to **special entities** (States, municipalities, and State and Federal agencies Pension plans, governmental plans, and endowments).
- A swap dealer that acts as an “advisor” to a special entity must act **in the best interest of the special entity**.
- A swap dealer or MSP “that offers to enter into or enters into” a swap with a special entity must **comply with any duty established by the** applicable regulator that requires the swap dealer or MSP to have a **reasonable basis to believe that the special entity is advised by a** qualified independent advisor

Effective Date & Grandfathering Provisions

- The derivatives subtitle generally takes effect 360 days after enactment. Many of the provisions require the applicable agency to implement regulations. Registration requirements for swap dealers and major swap participants take effect one year after enactment.
- Bill has more specific provisions that “grandfather” existing swaps: Generally, swaps entered into prior to the effective date of the clearing requirement are exempt from clearing if they are reported to a registered swap repository or the CFTC/SEC.
- Swaps entered into prior to enactment are exempt from clearing if they are reported not later than 180 days after the effective date of the clearing requirement.
- Swaps entered into prior to the application of the clearing requirement are exempt if they are reported not later than the later of i) 90 days after the effective date, and ii) such other time after entering into the swap as the CFTC/SEC may prescribe by rule or regulation.
- There is no express grandfathering with respect to margin or capital requirements on existing trades.

Citi Clearing

Citi Clearing—Built Around Client-Centric Principals

Our Derivatives Clearing solution delivers key enhancements to provide our clients a solid foundation for migrating and growing their cleared OTC portfolios

Reduced Systemic Risk	<ul style="list-style-type: none">▪ Central clearing houses will require margin from all participants and additional guaranty funds will be required from clearing members to provide enhanced systemic protection▪ In the event of an individual firm failure, risk “waterfalls” will provide adequate capital cushion to mitigate systemic risk
Segregation	<ul style="list-style-type: none">▪ Rules generally require clearing members to segregate the clearing house minimum for each client (gross)▪ Clearing members will consume and pass on clearing house marks and valuations to clients▪ Point of trade clearing will eliminate lingering concerns about same-day affirmation of positions and resolve any uncertainty about the state of pre-cleared trades
Portability	<ul style="list-style-type: none">▪ All solutions must provide pre-default and post-default portability▪ Arranging a back up clearing member will provide superior post-default guarantees on portability
Margin Optimization	<ul style="list-style-type: none">▪ Benefits of holding balanced portfolios may be realized more fully by clients participating in our Cross Product Margin (CPM) program
Standardized Documentation	<ul style="list-style-type: none">▪ Leveraging its experience from Futures & Derivatives Intermediation, the industry has agreed to standardize the legal documentation for central clearing to minimize costs and on boarding time▪ For ISDA-based solutions, only two ISDAs should be necessary for cleared transactions▪ Standard breakage language will eliminate legacy compensation agreements in some cases

Citi's Derivatives Clearing Differentiators

Citi's platform-agnostic approach with competitive fees and margin optimization positions us to be the premiere derivatives clearing service provider

Industry
Leading
Offering

- **Agnostic and Comprehensive OTC Connectivity:** Citi is willing to connect clients to their choice of any OTC clearing platform that has broad buy-side and sell-side support
- **Best in Class Global Clearing Experience:** At Citi, we offer direct custody and clearing services in 96 markets with local agent banks in 57 countries. Citi has over 60 years experience clearing derivatives as an FCM and enjoys unparalleled support from senior management to provide Derivatives Clearing services with this same level of excellence
- **Competitive Pricing:** Citi views Clearing as a core part of our franchise and a key relationship service, removing obstacles to clearing for the buy side
- **Margin Optimization Platform:** Our Cross Product Margining and Portfolio Optimization team will maximize capital efficiencies and margin relief
- **Cross-Product Approach:** Our offering is fully integrated across OTC products, providing clients with a single point of contact. We are affiliated with, but physically separated from our execution desks, on the right side of the “Chinese” wall, and supported by a market-leading , cross-product on-boarding & client service representatives
- **Integrated Derivatives Offering:** As part of our commitment to clearing, we will offer Derivatives Intermediation as well as Derivatives Clearing to meet our client's requirements and expectations

Citi OTC Middle & Back Office Services

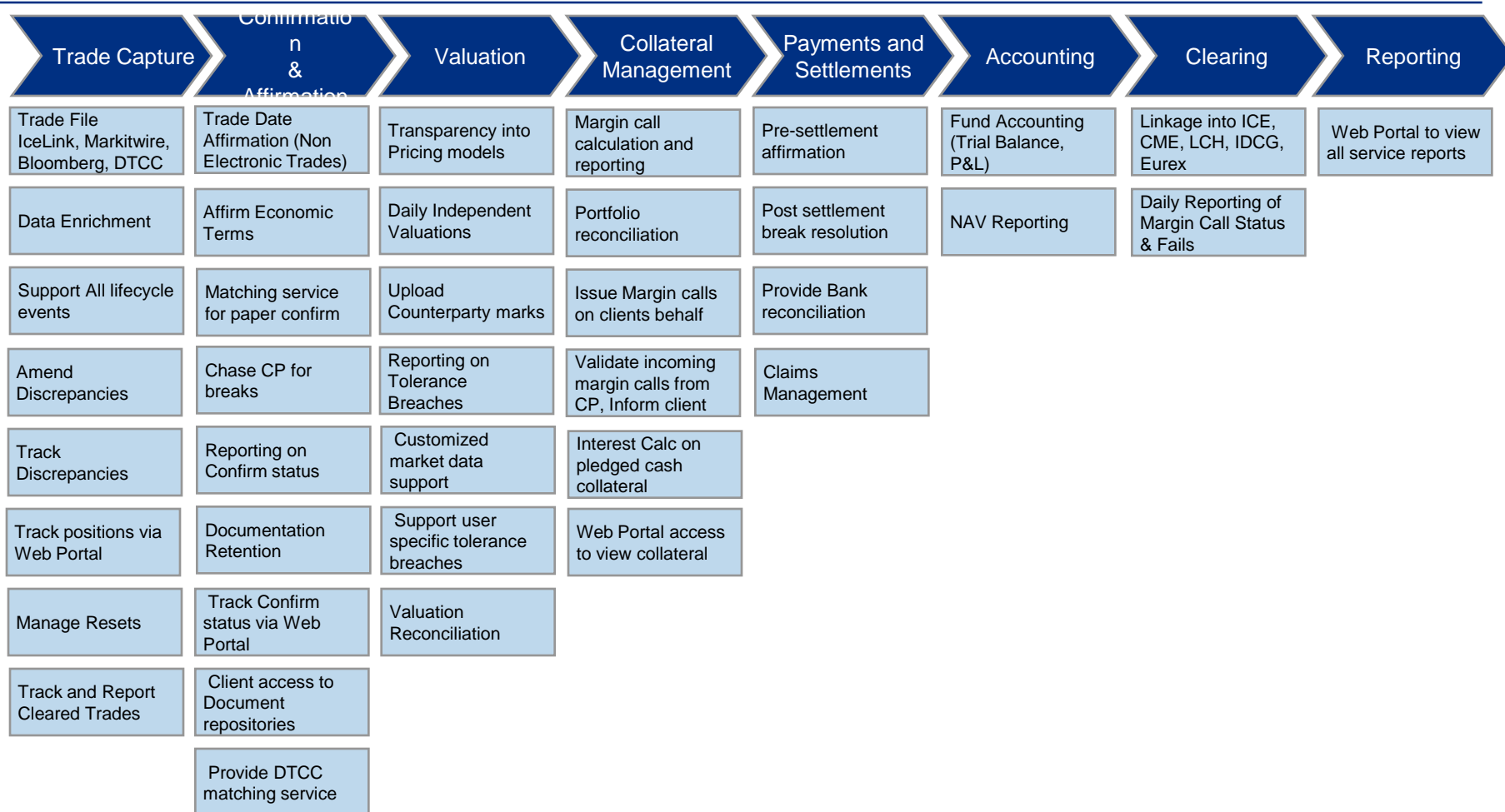
Financial Reform Bill—Impact to OTC Trading, Operations & Technology

Regulatory rulemaking over the next year will define how market participants operate. Over time, need for some functions like confirmations will decrease as more products are centrally cleared but client needs for multiple connectivity points, valuations for non cleared trades, reg reporting, PB & CCP margin validation and collateral optimization will be key focus points.

Key Bill Provisions	OTC Functions	Impact	Trading, Operational & Tech Considerations
<ul style="list-style-type: none"> Mandated clearing for standardized products 	Trade Capture	↑	<ul style="list-style-type: none"> Connectivity to multiple affirmation/trade capture platforms Connectivity to swap execution facilities when available
<ul style="list-style-type: none"> Reporting of non cleared trades to central warehouse 	Confirmations	↓	<ul style="list-style-type: none"> Multiple CCP Marks for same product, CCP marks (Avg Price) may need validation as they may not be used by counterparties who need to account for other risk factors
<ul style="list-style-type: none"> Daily valuations for non cleared trades 	Valuations	↑	<ul style="list-style-type: none"> IM management & Pricing (CCP+CM marks)
<ul style="list-style-type: none"> Margin segregation 	Margin/Collateral	↑	<ul style="list-style-type: none"> Legislation vague about products needing IM
<ul style="list-style-type: none"> Portability of positions 			<ul style="list-style-type: none"> Documentation differences (Bilateral vs. CCP), e.g. Downgrade triggers
<ul style="list-style-type: none"> Regulatory Registration 	Payments	→	<ul style="list-style-type: none"> Higher capital for non cleared trades
<ul style="list-style-type: none"> Trade Execution on Swap execution facilities 			<ul style="list-style-type: none"> Daily valuations for non cleared trades, Portfolio valuations for cleared and non cleared trades
	Accounting	→	<ul style="list-style-type: none"> Cross product margining for capital relief, Collateral optimization for maximum cap allocation Netting across clearing member relationships MSP compliance for big sized funds & institutions
	Reporting	↑	<ul style="list-style-type: none"> Registration with Regulators Potential Position limit monitoring Trade reporting to regulators and central warehouse, trade validation for reporting Reconciliation across clearing members, houses and counterparties will require additional cross checks

Citi OTC Services—Built to suit Client’s Middle & Back Office needs

Operational Servicing to Clearing, Citi offers automated end to end OTC servicing solutions. Clients get complete transparency into trade processing based on a robust reporting and reconciliation framework

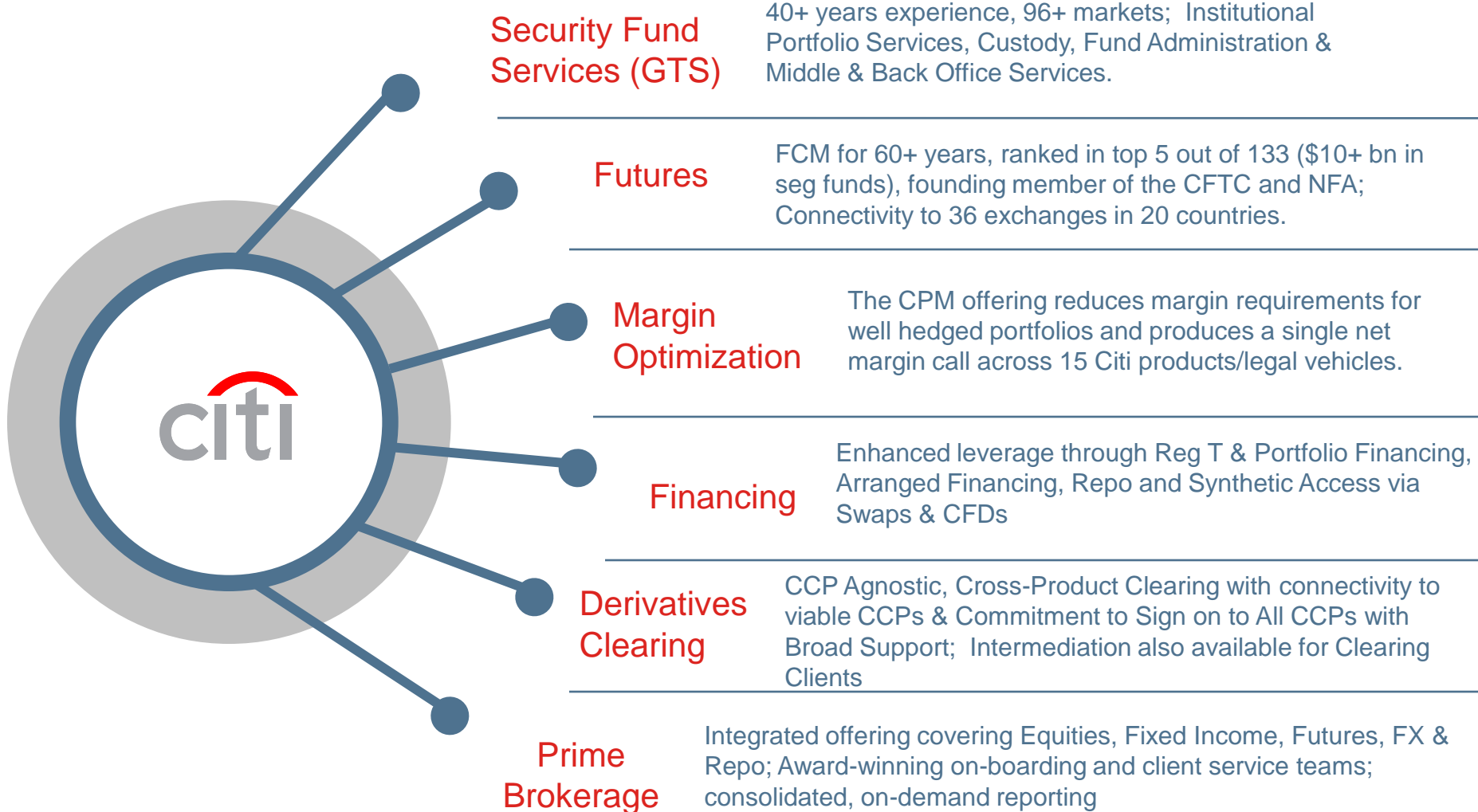


End to End Operational Processing



Part of Our One-Stop Operational & Clearing Services

Citi's comprehensive and integrated servicing and clearing solution supports all of our clients' needs.



Appendix

Delivering Standardized Access & Service Across US Credit CCPs

CCPs will continue to evolve and mature during the regulatory rule making process post legislative enactment

Venue	ICE Trust	CME (CDS)	ICE Clear	Eurex	Clearnet SA
Region	US	US	Europe	Europe	Europe
Products	CDS Single Name* and Index	CDS Single Name* and Index	CDS Single Name* and Index	CDS Single Name* and Index	CDS Single Name* and Index
Structure	CFTC—OTC Account Class	CFTC—OTC Account Class	TBD	TBD	TBD
Affirmation Platform	ICE Link, Bloomberg VCON	Bloomberg VCON, Clearport,	ICE Link, Bloomberg VCON	TBD	TBD
Client Account Structure	Gross Omnibus	Gross Omnibus	TBD	TBD	TBD
Documentation Requirements	TBD—as ICE transitions to an “FCM” model post legislative enactment	Master Futures Agreement (DCM) OTC Addendum (DCM) End User License Agreement (CME) Give Up (DCM, EB)	ISDA Master Agreement (DCM) ISDA Annex (DCM) Customer Clearing Agreement (DCM) DCM Annex (DCM)	TBD	TBD
Live Date	Live	Live	Q4	TBD	TBD

*Index constituents and highly liquid single name CDS; single name CDS will be ready Q3/Q4

Delivering Standardized Access & Service Across US Rates CCPs

CCPs will continue to evolve and mature during the regulatory rule making process post legislative enactment

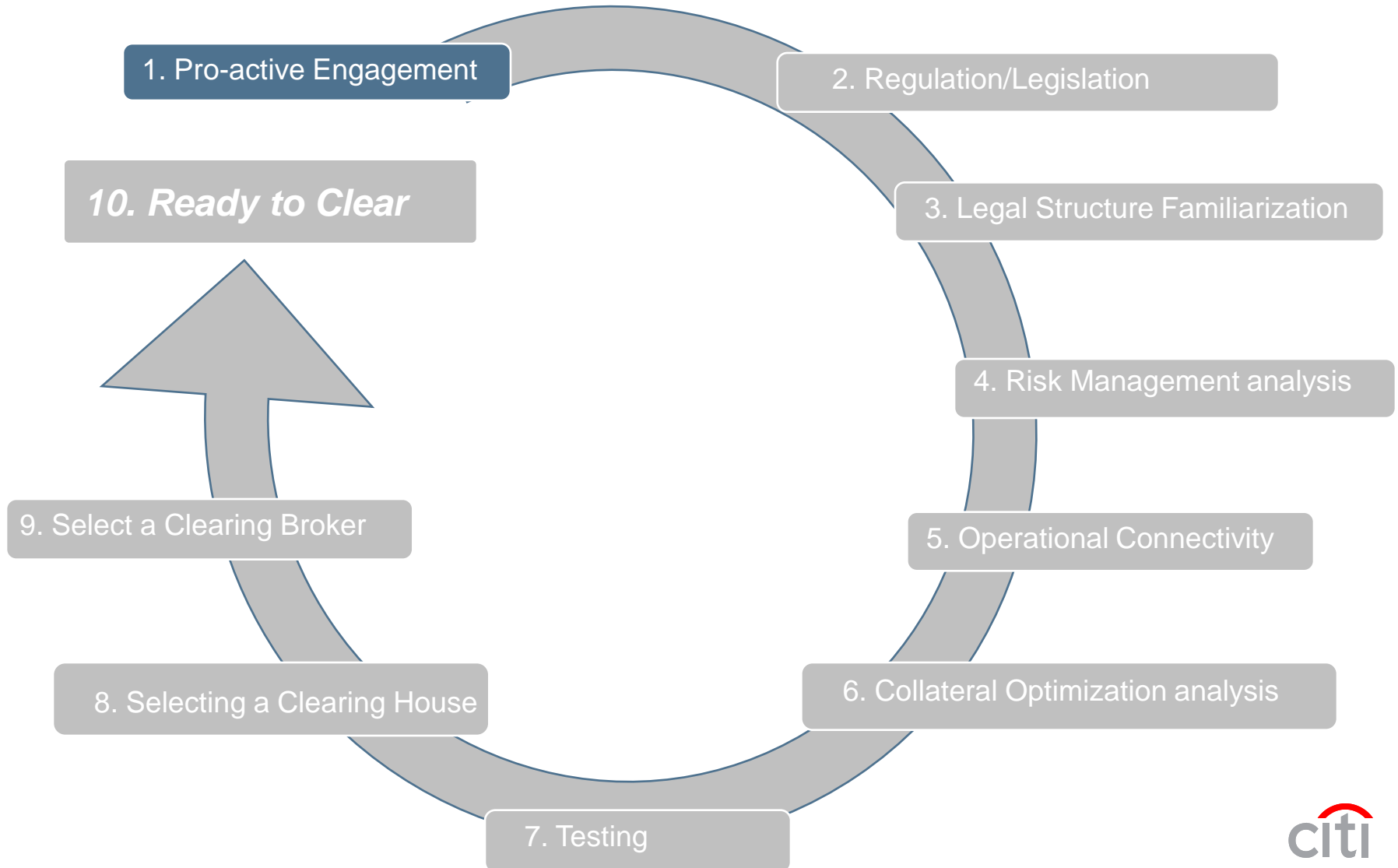
Venue	LCH	LCH	CME (Rates US)	IDCG
Region	Global	US	US	US
Products	<p>IRS:</p> <p>USD, EUR & GBP up to 50 years</p> <p>AUD, CAD, CHF, JPY & SEK up to 30 years</p> <p>DKK, HKD, NOK, NZD, PLN & ZAR up to 10 years</p> <p>OIS:</p> <p>CHF, USD, EUR & GBP</p>	<p>IRS:</p> <p>USD, EUR & GBP up to 50 years</p> <p>AUD, CAD, CHF, JPY & SEK up to 30 years</p> <p>DKK, HKD, NOK, NZD, PLN & ZAR up to 10 years</p> <p>OIS:</p> <p>CHF, USD, EUR & GBP</p>	<p>IRS: USD & EUR</p>	<p>IRS: USD</p>
Structure	Individual Segregated Accounts	CFTC – OTC Account Class*	CFTC—OTC Account Class*	Segregated Account (CFTC 4D order)
Affirmation Platform	MarkitServ	MarkitServ	Bloomberg VCON, MarkitServe,	Swap Drop, MarkitServ
Client Account Structure	Omnibus or Individual	Gross Omnibus	Gross Omnibus	Gross Omnibus
Documentation Requirements	ISDA Master Agreement (SCB) Compensation Agreement (EB) Client Static Data Form (LCH) Deed of Assignment (SCB, LCH) Agreement Relating to Clearing (SCB)	In development	Master Futures Agreement (DCM) OTC Addendum (DCM) End User License Agreement (CME) Give Up (DCM, EB)	Masters Futures Agreement (DCM) IRS Addendum (DCM) Give Up (DCM, EB) Terms of Use (IDCG)
Live Date	Live	Q42010	Q4 2010	TBD

*Expected account class upon go live



Road Map to Clearing

Whilst clients have taken a wait-and-see approach to client clearing, we recommend proactive engagement with participants in order to establish the ground work ahead of regulation



Citi OTC Valuation Service

Citi offers clients world class experience and expertise to secure independent valuations ranging from vanilla to the most complex instruments. Clients are offered full transparency into the pricing methodology and have the flexibility of customizing market data inputs into pricing models

Services

- Validate and Execute client valuation policy
- Transparency into pricing models
- Daily independent valuations
- Upload counterparty marks
- Reporting on tolerance breaches
- Customized market data support
- Support user specific tolerance breaches
- Valuation reconciliation
- Month-end reconciliation and validation

Securities Coverage

Interest Rate

- Vanilla swaps
- Amortizing, structured & basis swaps
- Forward rate
- Swaptions
- Interest rate exotic options

Equities

- Equity swaps, options
- OTC warrants
- Dividend swaps
- Exotic equity options

Volatility

- FX, equity & index variance & volatility swaps

Credit Products

- Single name credit default swaps
- Index credit default swaps
- CDS options
- Tranche CDS
- Synthetic CDOs
- Credit linked notes
- First to default swaps
- Recovery swaps
- Asset backed CDS
- ABX, CMBX & TABX Indices
- Bank debt
- Single name loan CDS
- Index loan CDS

Foreign Exchange

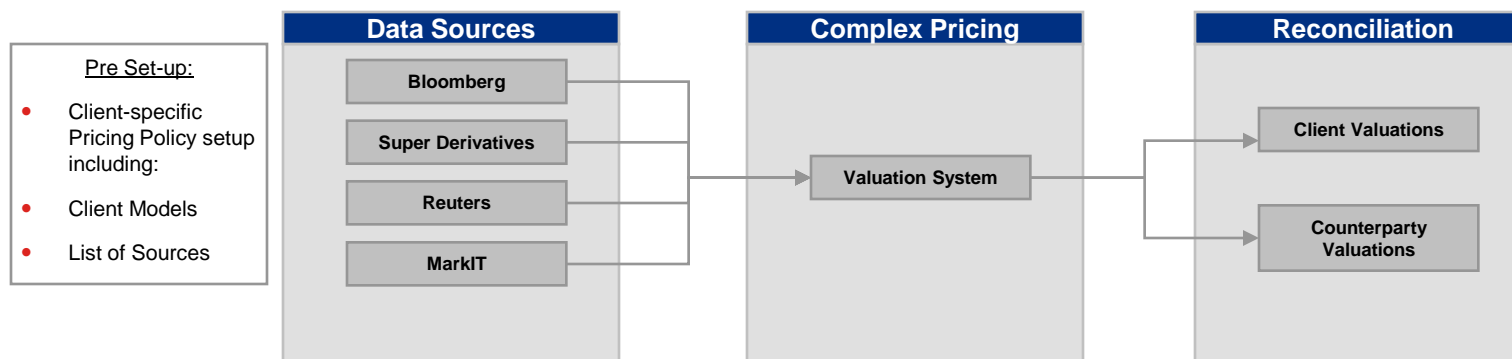
- FX forwards
- Vanilla & exotic FX options

Commodities

- Commodity swaps & options

Additional Products

- Total rate of return swaps
- Inflation swaps
- Ascots
- Tender option bonds
- Freight derivatives



Sample OTC Middle & Back Office Reconciliations

Function	Recon Service	From/To	Frequency	Timing	Data Reconciled (Sample Fields)
Trade Capture	End of Day Position reconciliation	CITI ↔ Client OMS	Daily	EOD	Sample Fields for CDS -Global Trade ID -Cpty Entity Code -Transaction Type -Trade Date -Maturity Date -Pay/Rec Floating/Fixed -Pay/Rec Currency Code -Pay/Rec Notional -Pay/Rec Fixed Rate/Coupon -Pay/Rec Frequency -Pay/Rec Payment Daycount Convention -Pay/Rec Holiday Schedule Code -Issuer Name -RED -Transaction Payment (Premium) -Transaction Payment Currency Code
Affirm/Confirm	Day 0 Trade reconciliation (With CP trade recap)	CITI (Confirmations) ↔ CP Trade Recap	Daily	EOD	
Valuation	Valuation reconciliation	CITI (Complex Pricing) ↔ Client Valuation	Daily	EOD	-Global Trade ID -Valuation Date -NPV Dirty -Currency
	Month-end reconciliation and validation	CITI (Complex Pricing) ↔ Independent Valuations	Monthly	EOM	
Collateral	Collateral Position reconciliation	CITI (Collateral) ↔ Client Positions	Daily	EOD	-Account Number -Position -Currency -Position Date -CSA Id -Calculation Date -Initial Margin Amount -Initial Margin Currency -Variation Margin Amount -Variation Margin Currency -Call Amount -Call Currency
	CP Margin Calculation reconciliation	CITI (Collateral) ↔ CP Margin Calculations	Daily	BOD	
Settlements	Bank Payment Reconciliation	CITI (Geneva) ↔ Bank Statements	Daily	EOD	-Bank from/to -Currency -Amount (Individual/Net)

