



Introduction to CLS

May 2015

www.cls-group.com

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CLS seeks to be the leading provider of risk mitigation and operational services to the global foreign exchange market

About CLS



About CLS

- Created as a result of regulatory concern regarding the potential for FX settlement risk to be a major source of systemic risk
- Provides settlement services for FX spot, FX forwards, and FX swaps in 17 currencies:
 - Directly to 62 settlement members; and
 - Indirectly to their 18,000 clients
- Settles approximately USD5 trillion of gross FX payment instructions daily
- Unique oversight framework: regulated by the Federal Reserve; Oversight Committee of 22 central banks
- Designated as a Systemically Important Financial Market Utility (Financial Stability Oversight Council)
- Recognized as being a contributing factor to the US Department of the Treasury's determination that FX swaps and FX forwards would be exempt from the central clearing and trading requirements of Dodd-Frank

Our services

- Our **core settlement service** settles payment instructions for FX spot, FX forwards, and FX swaps
- **USD/CAD same-day settlement** allows members to execute and settle same-day trades within an additional settlement session
- Trade compression service through **CLS Aggregation Services** which reduces the operational risk and costs associated with high-frequency trading
- **In/out swap service** reduces the payment obligations to CLS and mitigates liquidity pressures
- Settlement of certain CDS transactions on behalf of DTCC

The numbers

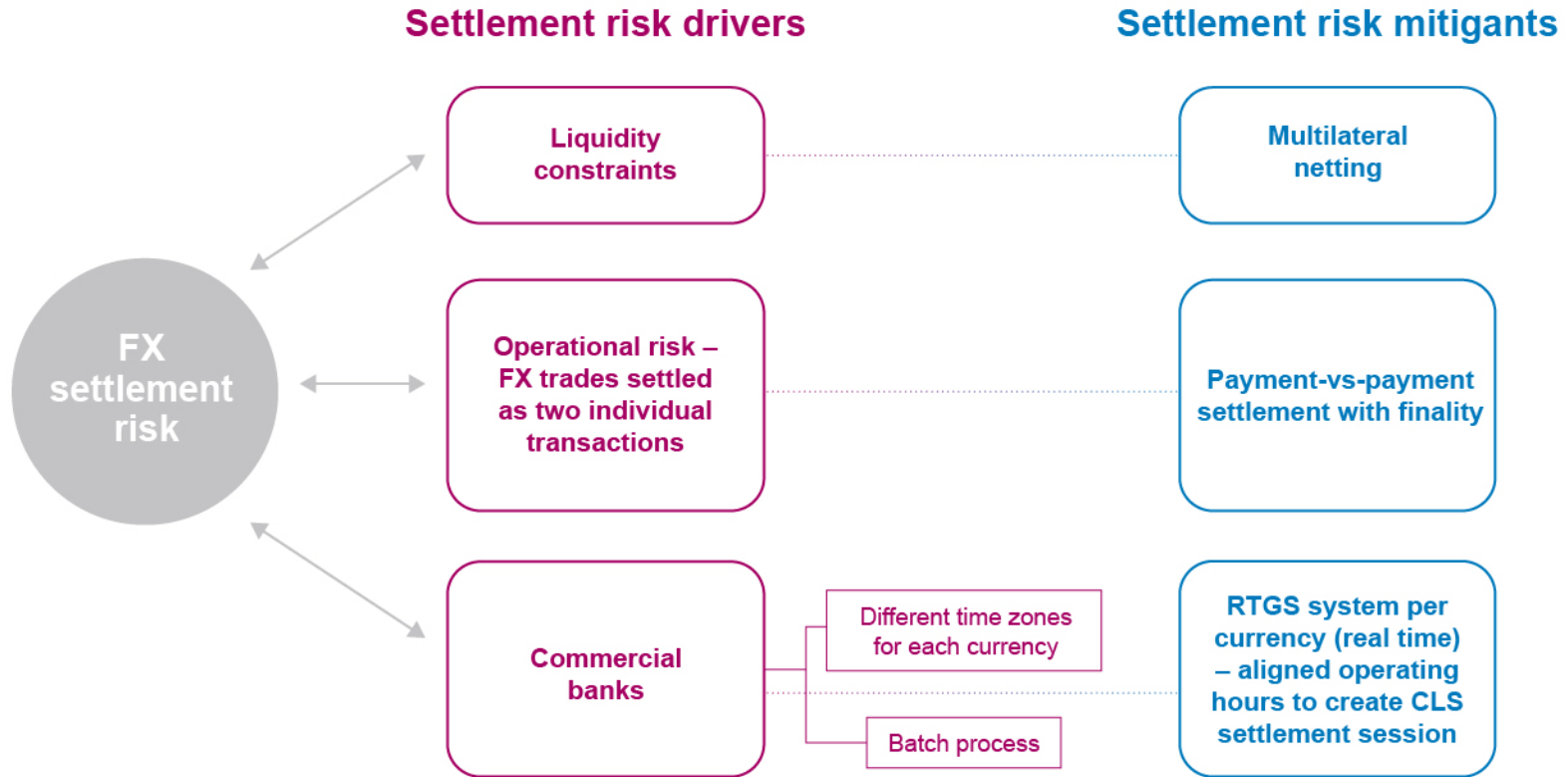
- Average daily volumes submitted:
circa 1.2 million instructions
 - Settlement service input: 800,000
 - Aggregation input: 400,000
- Average daily values settled:
USD5.1 trillion
 - Multilateral netting reduces the funding required to settle this amount to less than USD50 billion a day
- Record daily volume and settled value:
 - **Volume:** 2,258,192 sides (20 Jan 2015)
 - **Value:** USD10.67 trillion (17 Dec 2014 – quarterly IMM settlement date)
- **Participation**
 - 76 shareholders
 - 62 settlement members
- **26 settlement members** provide settlement services to approximately 18,000 third parties
 - **Third party business** accounts for approximately 22% of the total value settled

Source: CLS, October 2014

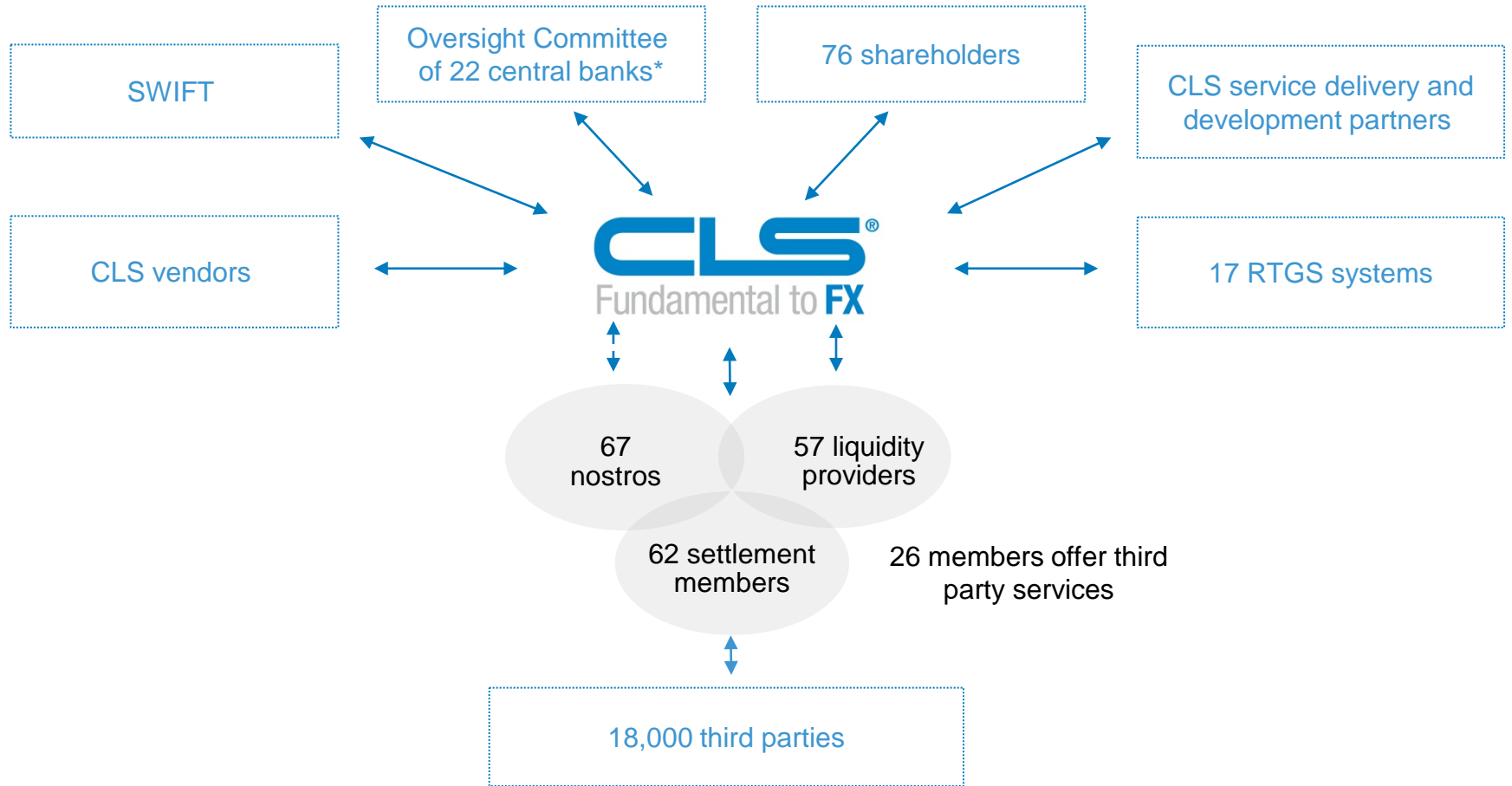
Evolution of CLS



Pre-CLS (2002)



The CLS ecosystem



*CLS is subject to regulation and supervision by the Federal Reserve as well as cooperative oversight by the CLS Oversight Committee (OC) which includes the 17 central banks of CLS-settled currencies as well as five other Eurosystem banks.

Risk mitigation challenges

- Manage credit risk
- Mitigate gross FX settlement risk across:
 - Own funds
 - Institutional mandates
- Manage operational risk and efficiencies
 - Reduce fails in FX to ensure securities settlement
 - Cash management across the full working day and after-hours
 - Multiple global custodians

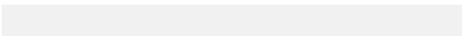
The CLS solution

Operational risk and efficiencies

- FX industry best practice
- SWIFT standards for messaging
- Matching and settlement
 - Trade date settlement instruction matching on average within 20 minutes
 - Real-time reporting trade status to global custodian
 - Lower risk of securities settlement failure due to higher confidence in payment-versus-payment funding
 - High level STP from trade execution through to matching and settlement
- Lower processing costs
 - Reduced cash management resource overheads
 - Significantly reduced investigations and interest claims
 - Reduction in message repairs



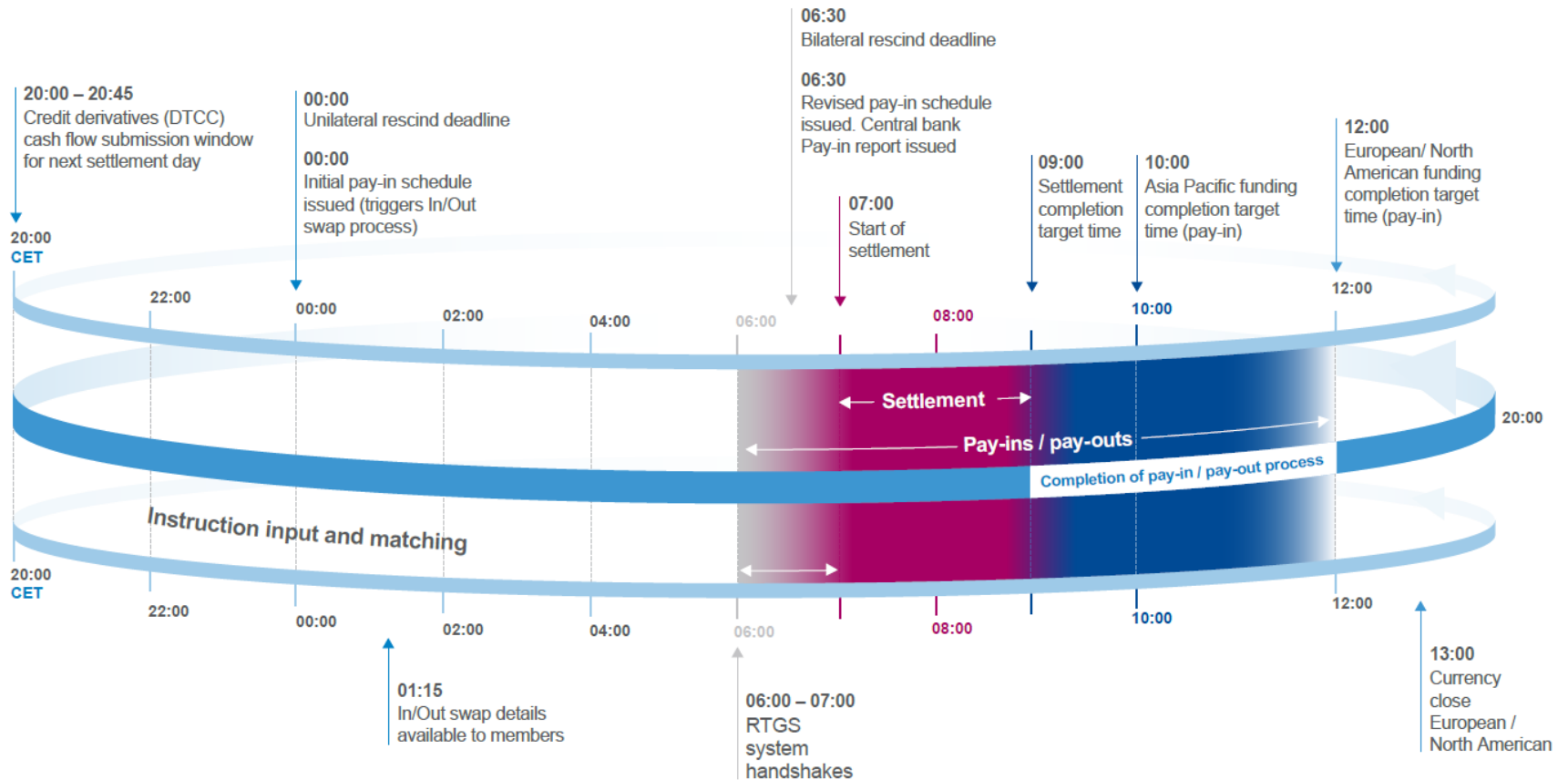
How CLS works



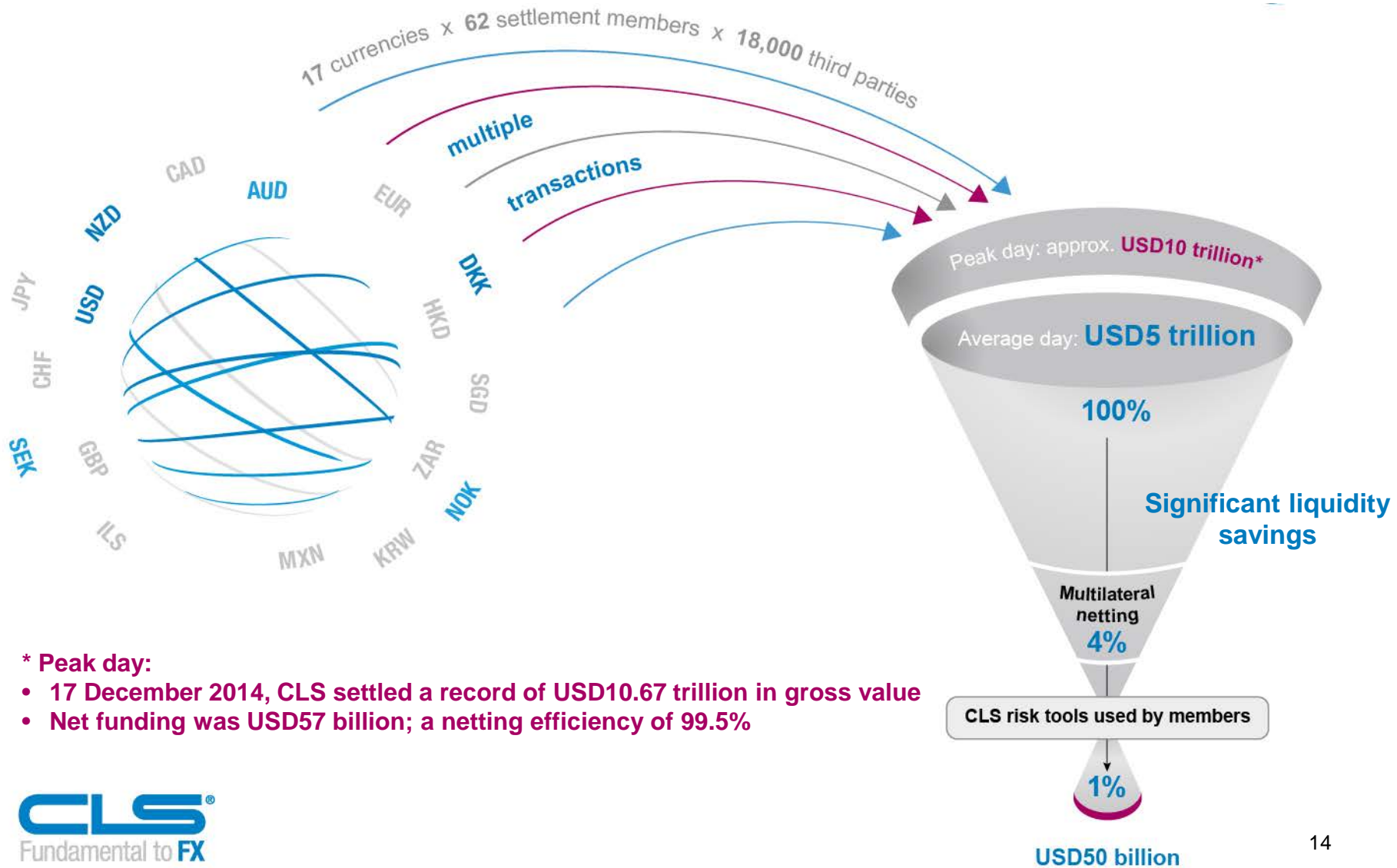
How CLS works

- CLS maintains accounts with all 17 central banks of the currencies settled, with access to the relevant real time gross settlement (RTGS) systems
- Settlement members each have a multicurrency account with CLS
- Funding and pay-out of multilateral net positions is conducted using a daily, defined schedule
- Settlement members pay and receive funds through CLS's central bank account in each currency via their own accounts or nostro bank accounts
- On each settlement date, CLS simultaneously settles each pair of matched instructions, subject to satisfying three risk management tests
- The settlement of the payment instructions and the associated payments are final and irrevocable. Finality is one of the most important elements of the CLS system
- Settlement members offer CLS access to their own customers (CLS third parties)

Operational timeline – core settlement service (CET)



Multilateral netting



* Peak day:

- 17 December 2014, CLS settled a record of USD10.67 trillion in gross value
- Net funding was USD57 billion; a netting efficiency of 99.5%

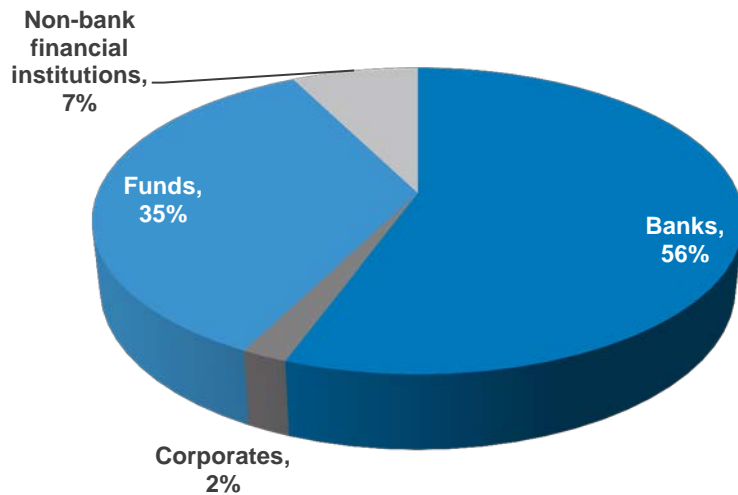
Third parties in CLS

- CLS provides settlement services to its members and their customers:
 - Directly to members
 - Indirectly to third parties – members providing third party access to their customers
- Third parties include banks, nonbank financial institutions, multinational corporates and funds
- Third parties have no contractual relationship with CLS
 - Members handle all payment instructions and funding on behalf of their third party customers
- Available to the investment management community including:
 - Investment managers
 - Hedge funds
 - Pension funds
 - Sovereign wealth funds

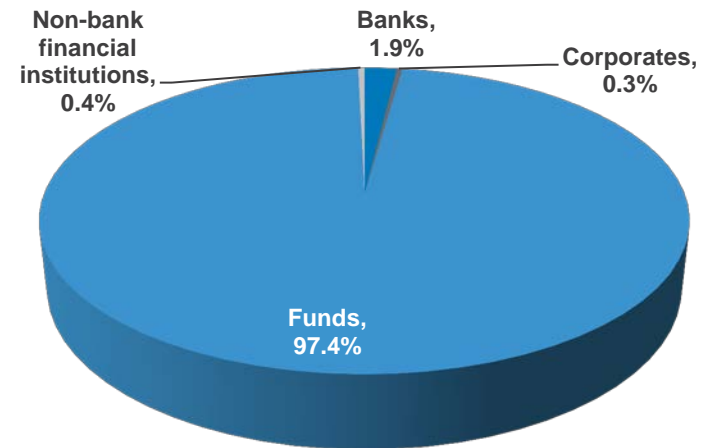
Third party activity

- Third party activity accounts for approximately 22% of the total value and 16% of the total volume settled in CLS

Third parties by value



Third parties by number of participants

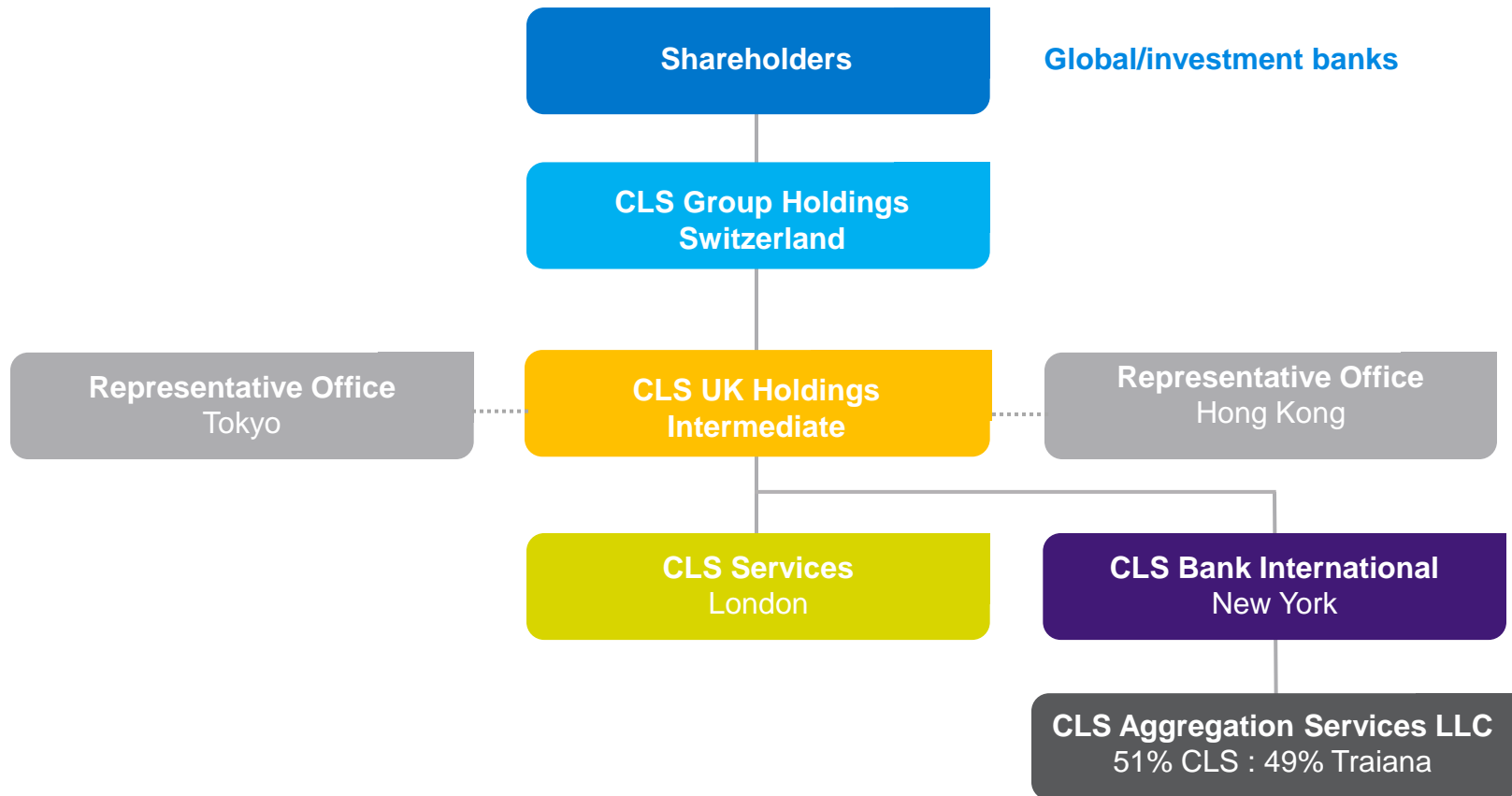


Source: CLS (third party BICs) and funds settled through CLS in 2014 (Jan – Dec 2014)

About CLS's corporate governance

CLS Group corporate structure

- Each of the CLS Group legal entities is subject to the provisions contained in its constitutional documents, as well as applicable laws and governance codes



CLS corporate governance

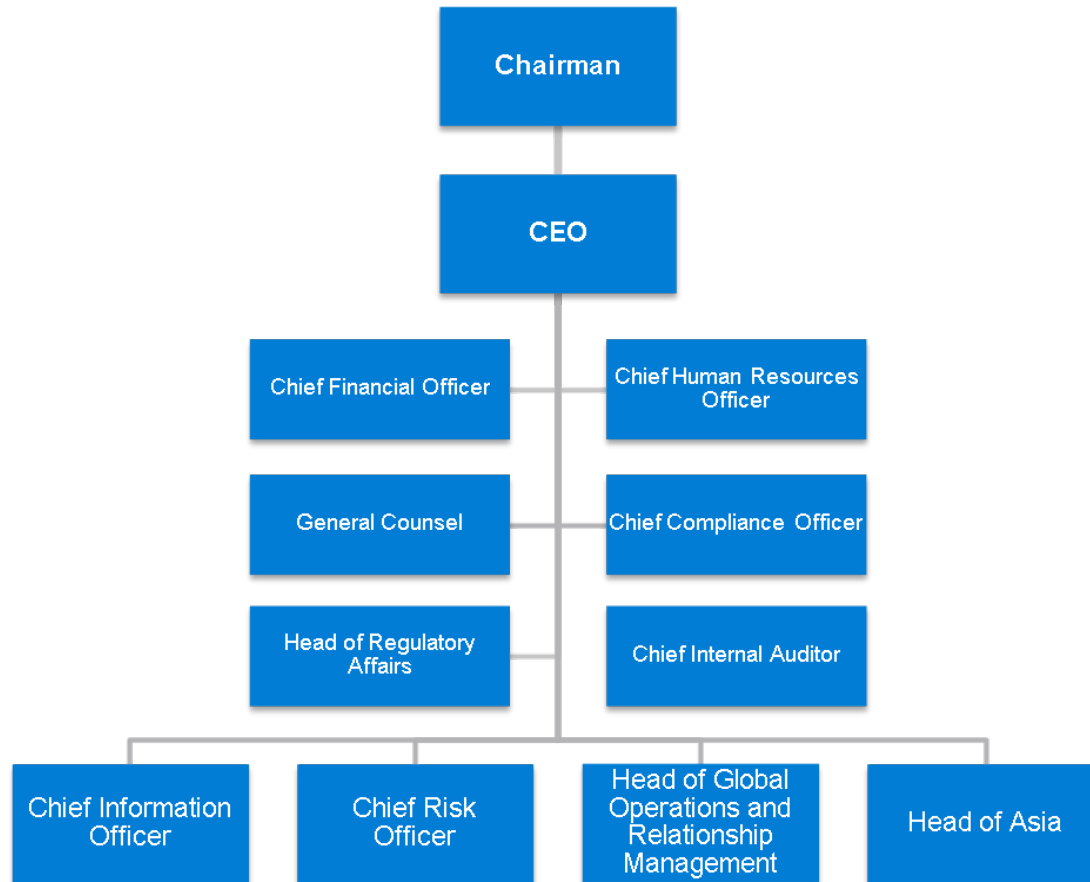
- **CLS Group ownership**
- 76 shareholders with global distribution
 - Voting rights limited to 100 votes per shareholder / affiliated shareholder group
- **CLS Group and CLS Bank Boards – 22 directors**
 - Sixteen Shareholder Representative Directors
 - Five Outside (Independent) Directors, one of whom is Chairman of the Board
 - One Executive Director who is the CEO
- **Duties of the Board of Directors are described in the CLS Group Articles of Association, its Organizational Regulations and applicable laws and governance codes**
 - Supervision, oversight and strategy
 - Governance and compliance
 - Fiduciary duty to CLS Group

CLS Group executive management

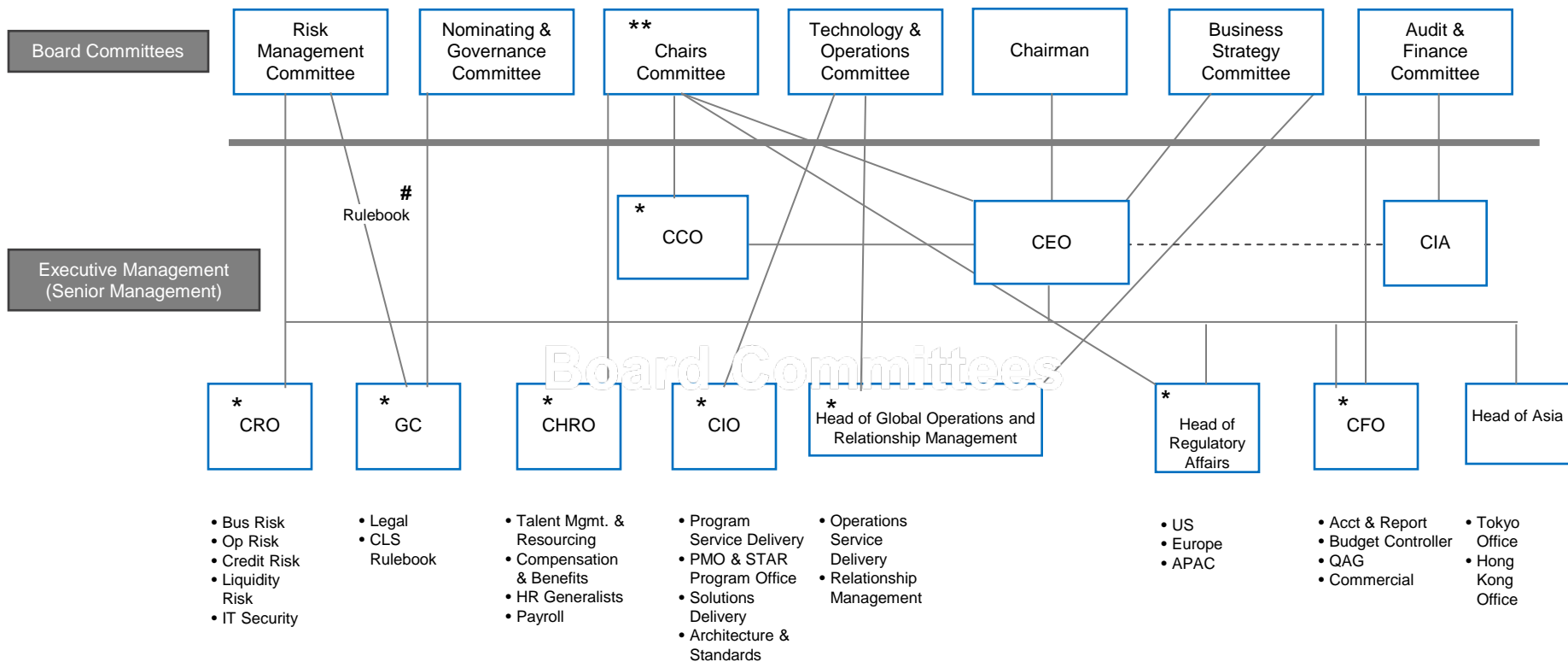


Support Functions

Core Functions



Interaction between board committees and management



Regulatory oversight and stakeholder input

• Regulatory oversight

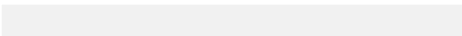
- CLS's oversight framework: regulated by the Federal Reserve; Oversight Committee of 22 central banks
- In addition, CLS, as a systemically important financial market infrastructure, is subject to the oversight and provisions by other market regulators, such as BIS and CPMI-IOSCO.

• Inclusion of stakeholders

- CLS regularly engages with its shareholders
- CLS regularly engages with its settlement members and liquidity providers, including, but not limited to, consultation processes for proposed changes to the CLS Bank Rule Book
- CLS regularly engages with central banks (including exploration of additional currencies)
- CLS participates in the public consultation process by providing comments on proposals published by regulatory entities in various jurisdictions



Current CLS initiatives



Expanding currency footprint

- 17 currencies settled in CLS
- Objective to expand
 - Core mission of CLS – mitigation of settlement and systemic risks
 - Extend reach to include more emerging market currencies
- Working to add Hungarian forint in November 2015
- Governance structure:
 - Board of Directors
 - > Strategy Committee
 - > Provide overall direction and guidance
 - > Approval by Risk Committee and full Board
 - Member working group
 - Regulatory oversight and approval

Same Day Settlement

- CLS's initial product set at go-live included FX spot, forwards, and swaps
- Post crisis: objective to add trades that settle the same day
 - Reduce settlement risks in the system
- Technology and operational challenges
- Live in September 2013 for USD/CAD (“Americas Session”)
- Seek to add MXN in 2016
- Exploring Atlantic Session for SDS in European time zone
- Governance structure:
 - Board of Directors
 - > Strategy and Risk Management Committees of the full Board
 - > Provide overall direction and guidance
 - Member working group
 - Regulatory oversight and approval

Cross currency interest rate swaps

- Cross currency interest rate swaps (“CCS”) not included in initial product set when CLS went live
- Add more products to expand the number and type of transactions that settle with payment-versus-payment
- Working to go live with settlement of initial and final principal exchanges of a cross currency interest rate swap
 - Will not settle intermediate cash flows during life of the swap
- Governance structure:
 - Board of Directors
 - > Strategy Committee of the full Board
 - > Provide overall direction and guidance
 - Working group with initial group of banks
 - Regulatory oversight and approval

FX compression

- Compression of trades (also called “tear-ups”) has been used in derivative markets for years
 - Interest rate swaps and credit default swaps
 - Reduce the outstanding number of trades while keeping the economic value unchanged
 - Reduce gross exposures and reduce capital requirements
- Working with another firm to offer compression services
 - CLS to provide trade info/data – other firm to run process of compression
 - Aiming to go live in second half of 2015
- Governance structure:
 - Board of Directors
 - > Strategy Committee of the full Board
 - > Provide overall direction and guidance
 - Working group with initial group of banks
 - Regulatory oversight and approval

CCP services

- Background:
 - Industry seeking to find a clearing solution for FX options
 - Threshold challenge has been to solve settlement risk in a scenario where a major counterparty fails
 - CCPs and banks have worked with CLS and industry groups to find a solution
- Exploring various options including:
 - Under one scenario, CLS to provide a separate CCP session that would leverage CLS accounts at central banks to settle obligations of clearing members and CCP
 - CCP would maintain responsibility for default management
- Working with CCPs to gauge demand for such a service
- Goal: mitigate settlement risk and foster financial stability
- Governance:
 - Board of Directors
 - > Strategy Committee
 - Industry groups, Clearing Members
 - Regulators and central banks

Other initiatives

- Enhanced liquidity framework
 - Make CLS and ecosystem more resilient
 - Risk Committee
- Technology upgrade
 - Enhance technical resiliency
 - > Including cyber security
 - Assure safe and efficient settlement every day
 - Technology and Operations Committee
- Sustainable financial model
 - Capital raise in 2013
 - Establish principles for how the company will be managed
 - Audit and Finance Committee
- Full Board of Directors engaged in all aspects



Overall governance:

CLS vision

strategy

initiatives

implementation