



CLS for Funds

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CLS

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FX market developments



- Sell side consolidation
 - Interbank share of trading declining; 43% of global FX turnover in 2007 – was 53% in 2004.*
- Expanded buy side activity driving volume growth
 - Share of total global FX turnover done between banks and other financial institutions, including hedge funds and pension funds, rose from 33% in 2004 to 40% in 2007.*
- Emerging market currencies growth
 - 19.8% of global FX turnover in 2007 - up from 15.6% in 2004.*
- Computer based trading showing strong growth
- Major focus on credit and settlement risk

CLS Service structured to minimize risks



Settlement risk

- Eliminated through PVP
- Settlement is not guaranteed – CLS is not a central counterparty

Liquidity risk

- Reduced by multilaterally netted funding obligations
- Further mitigated by “in/out” swaps between Settlement Members

Credit risk

- No credit exposure to CLS Bank
- Credit exposure between Members effectively reduced by stringent membership criteria, currency haircuts and risk management tests

Operational risk

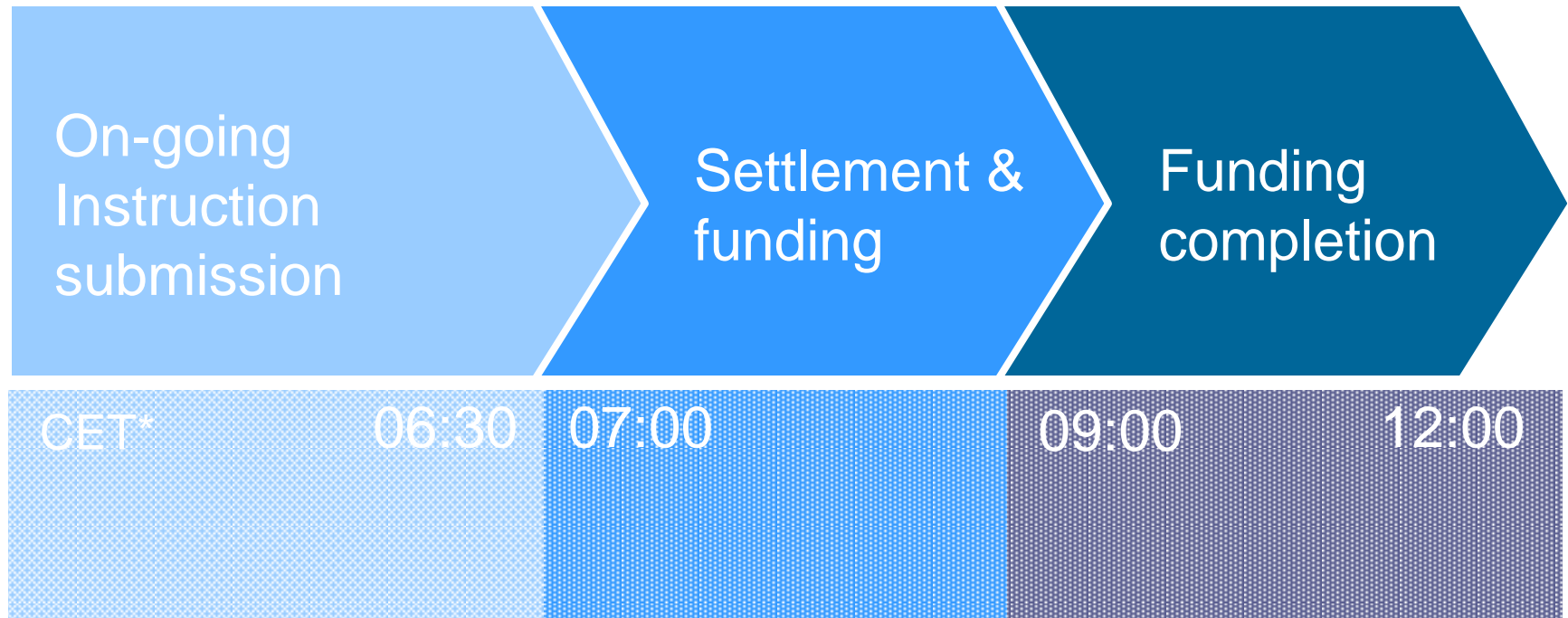
- Minimized by STP, stringently tested reliable and resilient system
- Failover testing required of all participants including RTGS'
- Vanguard Swiftnet user

Legal risk

- CLS Bank protected by a robust legal framework for settlement & funding finality



How CLS Works



Global PvP - overlapping RTGS systems



North America

Europe

Asia / Pacific

CLS - The market standard



One of six critical market infrastructures overseen by FRBNY

- Settles payment instructions related to trades in **six main instruments**:
 - FX spot,
 - FX forwards,
 - FX option exercises,
 - FX swaps,
 - Non deliverable forwards,
 - Credit derivatives

- Settles **seventeen currencies** that account for 95% of daily traded value



CLS is a unique infrastructure



- Two separate but related processes: Gross Settlement and Net Funding
- CLS Bank is not a central counterparty
- Exploits the self-collateralizing nature of FX transactions
- Recognises the concept of equivalent value
- No credit is extended
- Defined structure to manage failure situations
- Legal framework sets a global standard
- Robust and resilient infrastructure
- Meets *Core Principles for Systemically Important Payment Systems*

These elements provide for a safe, effective and efficient process

CLS Passes the test in recent market events



- W/c 15 September: exceptional sustained volumes and values
 - Settlement of **USD 26.5 trillion** and **4.4 million instructions** for the week
- Collapse of Lehman Brothers:
 - CLS community worked together
 - Minimal number of trades were rescinded/withdrawn
 - Lehman trades were settled – greater than \$150bn
- Increased level of AIG related instructions submitted on peak volume day
- New peak volume day of 1.5 million instructions on 17 September

**CLS worked exactly as designed,
huge settlement risk values taken out of the market**



Accomplishments 2008 - 2009



142m sides and over **\$1 Quadrillion** settled in 2008

50% increase in volume in 2008

Record day, **1.55 million** instructions during week of Lehman's failure

100% service delivery throughout the market turmoil

Effectiveness during **major Market events**

Mexico and Israel go live

New Settlement Members go live - CIBC, Leumi, Hapoalim, Shinhan, Bank of China, RBNZ

Expansion of NDF participants

FX Option Premiums enabled

Out of region synchronous production service live

Aggregation service announcement and development

Expansion of settlement of **Credit Derivatives** in CLS from CCP's and buy side

Strong growth in third party participation in 1st half **+ 60%**

Financials strong

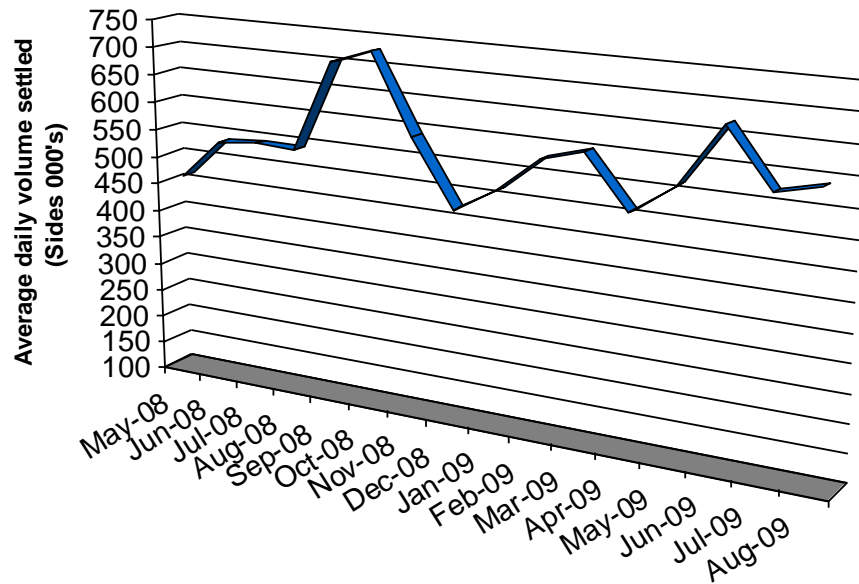
*Increased and strong industry **recognition** of CLS achievements and central role in the FX market!*



CLS volumes and values



Volume

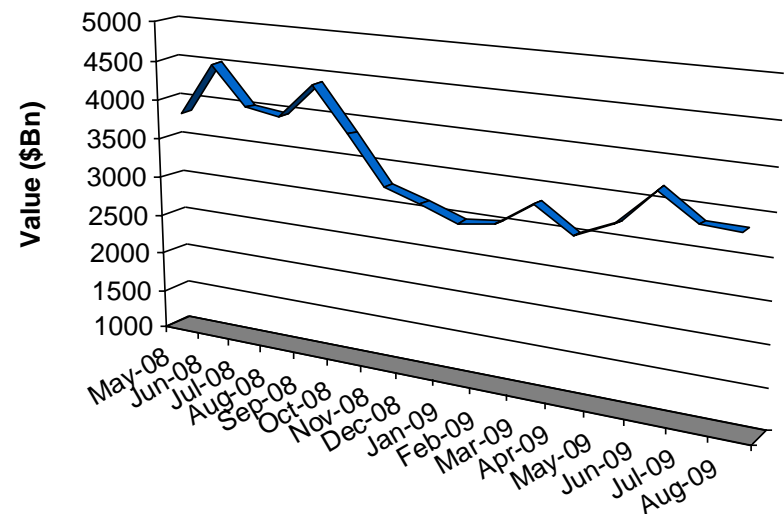


**\$3 trillion daily
(\$10.3 trillion peak day)**

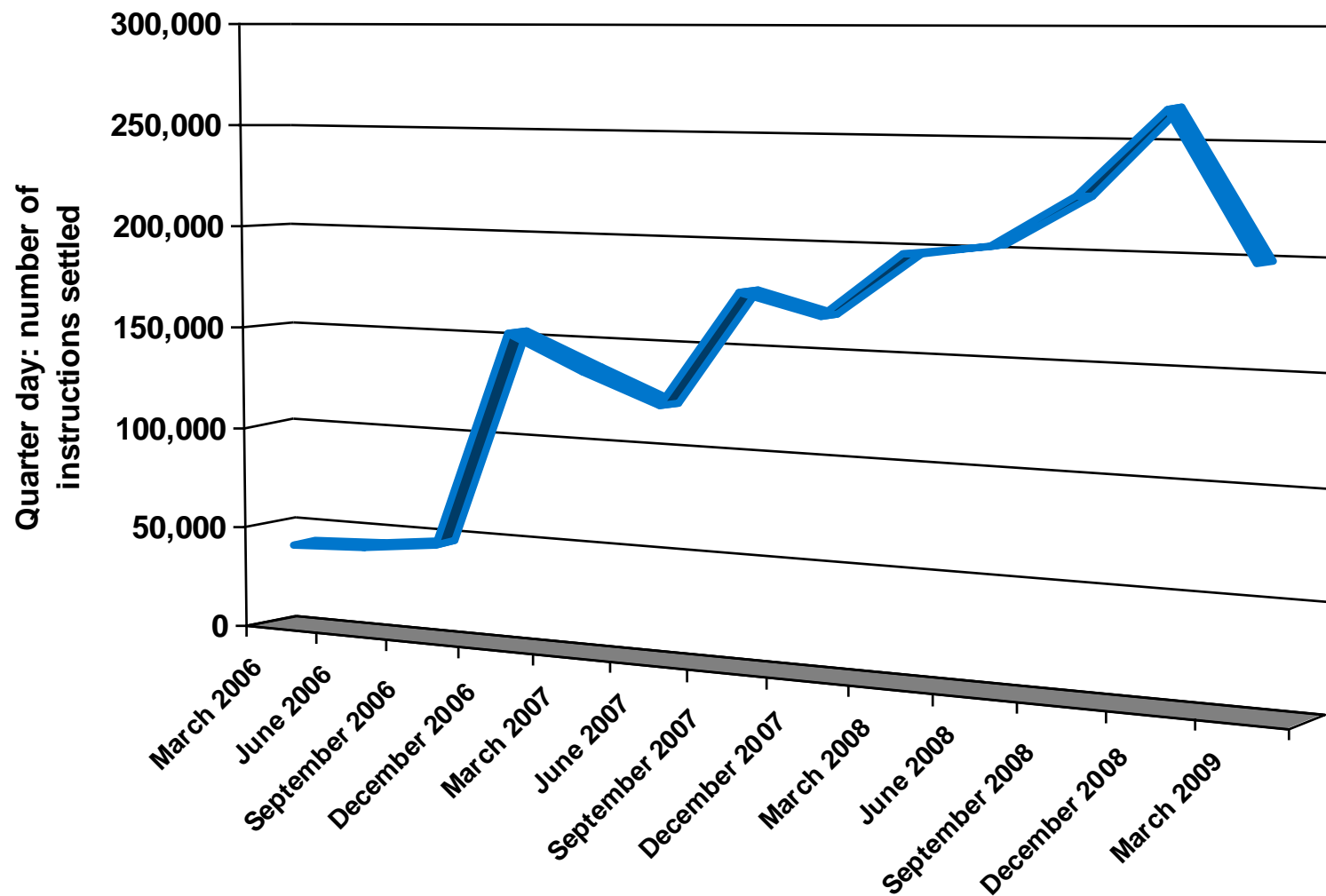


**550,000 instructions daily
(1,554,166 peak day)**

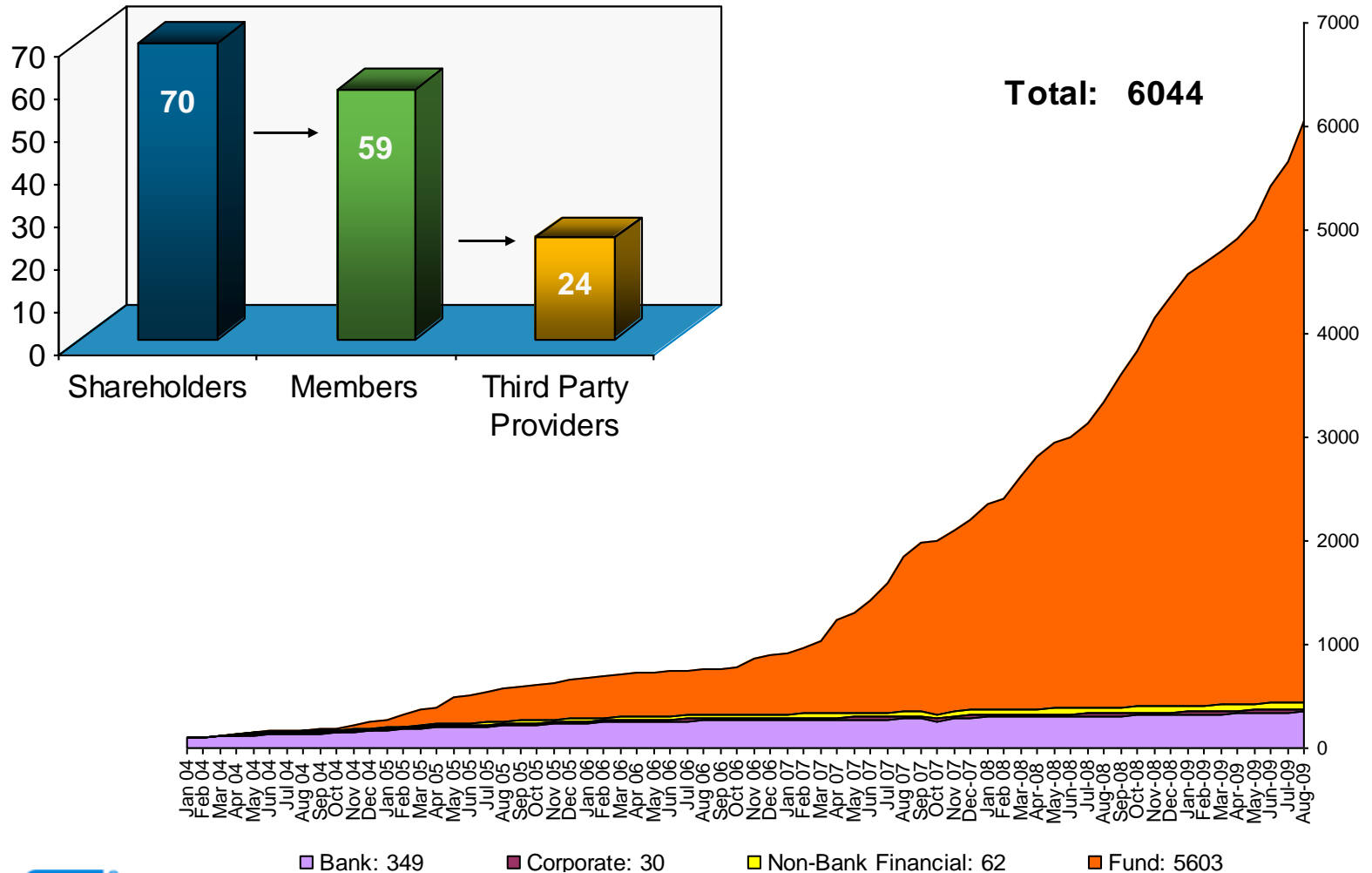
Value



CLS for funds: steady growth, more to do



CLS participation



CLS value summary for funds



Risk reduction	Operational efficiencies
<ul style="list-style-type: none">• Settlement risk elimination• Reduced payment risk• Reduced operational risk• Best execution compliance	<ul style="list-style-type: none">• Automated processes• Operational certainty• Best in class cash forecasting• Real-time reporting on the settlement status of trades• Effective resource allocation

Who can benefit?



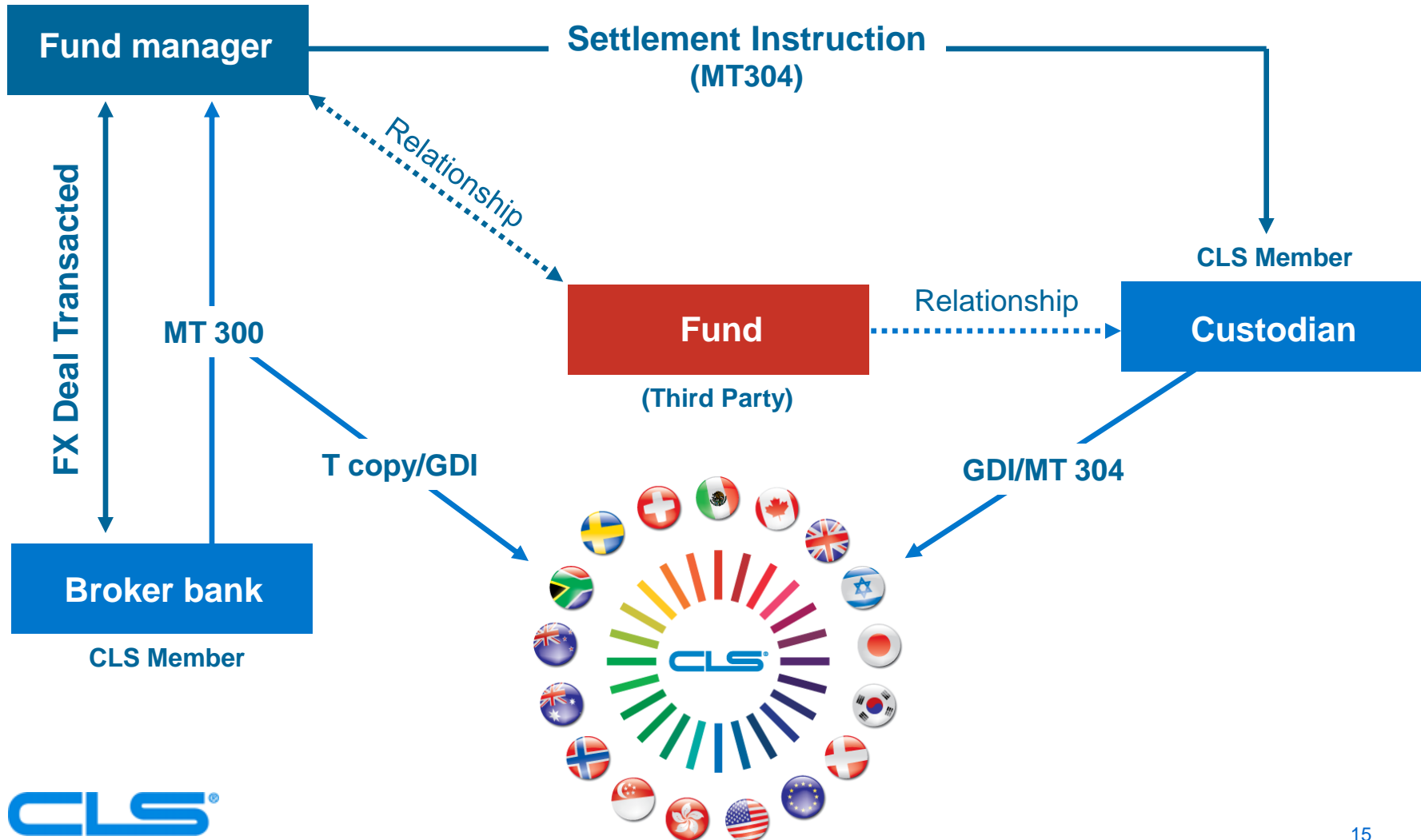
CLS settlement applies to “away trades” and is accessed through CLS-enabled custodians and broker banks.

Used by:

- Investment fund managers
- Hedge funds
- Pension funds
- Overlay funds
- Third party custodians



Streamline operational processing



Implementing CLS in your organisation



- You must have a CLS enabled custodian(s) and broker bank(s) to settle FX trades in CLS.
- Participating custodians and broker banks listed on CLS website: www.cls-group.com/foryou/clsfunds
- Contact your custodians and FX broker banks to review what you'll need to implement CLS.
- Existing fund managers report quick pay-back due to significant operational cost savings.



- The Fund FX solution uses SWIFTNet FIN and SWIFTNet XML messaging standards, with the Custodian Fund Identifier (Fund ID) as the matching criteria within the CLS system.
- SWIFTNet FIN solution – conforms to existing standards & utilises field 83J to identify the Fund ID
- Format and length of Fund IDs can vary significantly between Custodians – the first 11 characters are extracted from the field.
- SWIFTNet XML – utilises current GDI gross input mechanism for CLS. Members input the Fund ID directly into the existing CLS GUI fields and/or API fields.



- MT300 & MT304 instructions mapped into CLS system, with the presence of either “O-” or “C-” in field 83J, to identify whether the party identified is the Original Party ID or the Original Counterparty ID.
- Custody instructions must contain two codes in field 83J:
 - /NAME/ (maximum 35 characters)
 - /ACCT/ (“O-”/”C” and the Fund ID)
- The CLS system mapping of the contents of field 83J will take the first 11 characters following the “O-”/”C-” mapping trigger.
- Format validation of the instruction conducted based on mapping triggers present.



- Format validation of the instruction conducted based on mapping triggers:
 - If trigger “O-” is present, (i.e. the instruction is being received from the Custodian), then the use of options A, D & J will be permitted in field 82a, otherwise A is mandatory.
 - If trigger “C-” is present, (i.e. the instruction is being received from the counterparty), then the use of options A, D & J will be permitted in field 87a, otherwise A is mandatory.
- This allows CLS to receive instructions from Fund Managers who do not have a BIC/BEI, but use an electronic matching system to match instructions with their counterparty (broker).
- The counterparty is able to submit their MT300 to an electronic matching system and confirm the instruction with CLS Bank via T-Copy.



- When submitting via SWIFTNet using gross input object (via the GUI or API), the Original Party Identifier (ThirdPartyIdentifier for the CLS-API) are populated with the Fund ID and the counterparty BIC.
- Field TP Specific2 must be populated with the Fund Manager BIC (if SWIFT registered)
- Field Specific 3 must be populated with the Fund Name.
- Matrix of population of the CLS GUI and CLS API objects from a Custodian and Broker perspective available in the Fund FX Service Description.

Matching Details



- CLS Originator BIC (i.e. CLS Settlement Member BIC)
- CLS Counterparty BIC (i.e. CLS Settlement Member BIC)
- Value Date
- Buy Currency and Amount
- Sell Currency and Amount
- Original Party ID*
- Original Counterparty ID*
- The content of code /NAME/ in field 83J, which is mapped in to the Third Party Specific field is not matched in the CLS system.

* Note: the Custodian Fund ID will be populated in either of these fields as appropriate.

Non-Deliverable Forwards & Non Deliverable Options



- Cost Savings:
 - Elimination of manual long form confirmation processes for NDF & NDO
 - Straight Through Processing
 - Standardisation
 - Integrated with FX Settlement
- Risk reduction:
 - Reduction in market risk
 - Reduction in operational risk
- Significant growth potential – estimated cost of manually processing an NDF /NDO trade ~ US\$20

Non-Deliverable Forwards - Scope



- Currencies: 17 settlement, ~ 50 reference currencies
 - EMTA templates for 15 currency pairs. More under development.
 - Elimination of long form confirmations.
- NDF - Provides confirmation matching and linking of valuation Instructions.
- NDO – Provides confirmation of matching of Option Premium Instructions
- Multilateral net settlement of settlement currency.
- Support for
 - Settlement Members, User Members, Third Party services, Fund Managers and custody trades.



- Direct submission of XML messages over SWIFTNet
- T-Copy of SWIFTNet FIN MT300
 - settlement currency and valuation date in field 77D
- Direct submission of SWIFTNet FIN MT304
 - settlement currency and valuation date in field 72
- Manual entry at browser screen

- SWIFTNet FIN Standard User Guides for Settlement Member and Third Party Use

- Opening and valuation instructions
 - create, amend, rescind



- Forex Notifications approved by the UNIFI FX SEG on 14th March 2007
- These messages can be used to notify operations of:
 - Non Deliverable Forward transactions (messages trea.001 to trea.006)
 - Foreign Exchange Option transactions (trea.009 to trea.011)
 - Both to and from a central settlement system (trea.007, trea.008 and trea.012 used to report status and settlement of trades)



- These messages can be grouped into three categories:
 - Opening of a Non Deliverable or Foreign Exchange Option Trade
 - Valuation of a Non Deliverable Trade
 - Notification/Status Report of a Non Deliverable or Foreign Exchange Option Trade
- For the first two categories, three main flows are covered:
 - Creation
 - Cancellation
 - Amendment
- For the third category, two main flows are covered:
 - Notification
 - Status



Questions & Answers

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