



Settlement

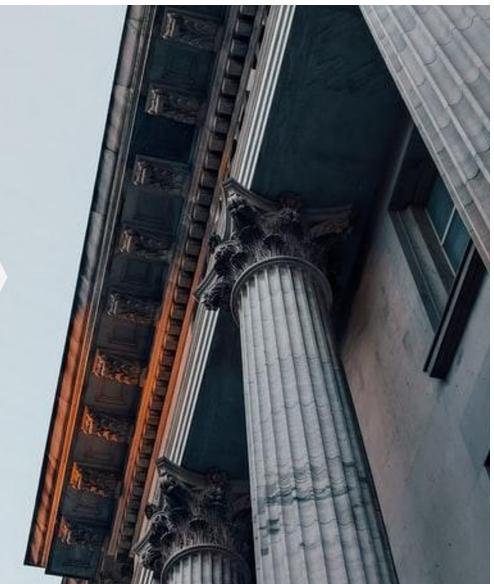


Processing



Data

## 01 CLS FUNCTIONS AND SERVICES



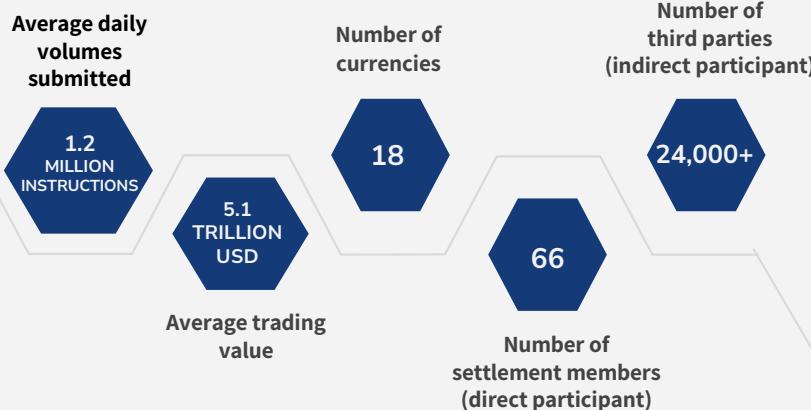
### ABOUT CLS

- An international payment system
- Launched in September 2002 for the settlement of foreign exchange transactions
- Created as a result of regulatory concern regarding the potential for FX settlement risk (**Herstatt risk**) to be a major source of systemic risk
  - Named after the 1974 collapse of Herstatt Bank, A German bank active in the FX market in Cologne
  - Herstatt's banking license was withdrawn when its losses arising from unsuccessful speculative trading was discovered => the business stopped
  - Herstatt's counterparties in US *irrevocably* delivered their liabilities and did not receive corresponding claims => had to find the outstanding US dollars in other ways
  - Trading between two currencies came to a standstill and took few days to recover

### ABOUT CLS

- Eliminates settlement risk via **PvP mechanism**
  - Ensured by means of synchronisation of the payments
  - The currency that has been sold is transferred if and only if the transfer of the currency that has been bought is guaranteed
- Consists of two companies:
  - **CLS Bank International**
    - Responsible for management of the system and across whose accounts are settled
    - Regulated by Federal Reserve Bank of New York
  - **CLS Services**
    - Provides operational and technical back office and IT services for CLS

## CLS NUMBERS



## CLS SERVICES

Services	Description
Foreign Exchange Settlements	<ul style="list-style-type: none"> <li><b>CLSSettlement:</b> Mitigate settlement risk for your FX trades while benefiting from operational efficiencies, in addition to best-in-class netting and liquidity management</li> <li><b>CLSClearedFX:</b> Allows central counterparties and their clients to mitigate settlement risk for over-the-counter cleared FX and derivatives while benefiting from capital, margin, leverage and operational efficiencies</li> <li><b>CLSNOW:</b> Mitigate the FX settlement risk associated with the out-legs of CLSSettlement in/out swaps and other same-day FX transactions using our gross payment-versus-payment settlement service</li> <li><b>Cross currency swaps:</b> Mitigate FX settlement risk, improve operational efficiencies and reduce your liquidity and payment demand for cross currency swap trades using our world-class settlement service</li> <li><b>OTC Derivatives:</b> Simplify and streamline the payment process for your OTC credit derivatives cash flows</li> </ul>

## CLS SERVICES

Services	Description
Processing	<ul style="list-style-type: none"> <li><b>CLSNet:</b> Automated bilateral payment netting solution which reduces risk, drives efficiency and unlocks liquidity for both buy- and sell-side market participants.</li> <li><b>CLSOptimization:</b> Manages gross notional exposures, optimizes capital usage, and mitigate counterparty credit risk with the support of CLS-approved optimization service providers.</li> <li><b>CLSTradeMonitor:</b> Post-trade monitoring and reporting tool which efficiently manage executed FX trades through timely, consolidated reporting across all your CLSSettlement providers.</li> </ul>
Providing data insights	<ul style="list-style-type: none"> <li><b>CLSMarketData:</b> A comprehensive suite of FX alternative data products that provide quality insight and analytics, providing enhanced visibility and control</li> <li><b>CLSReporting:</b> FX-matched instruction report that provides an enhanced view of client's overall FX trade activity and data, allowing effective transactional reporting</li> </ul>



02  
CLS IN SINGAPORE



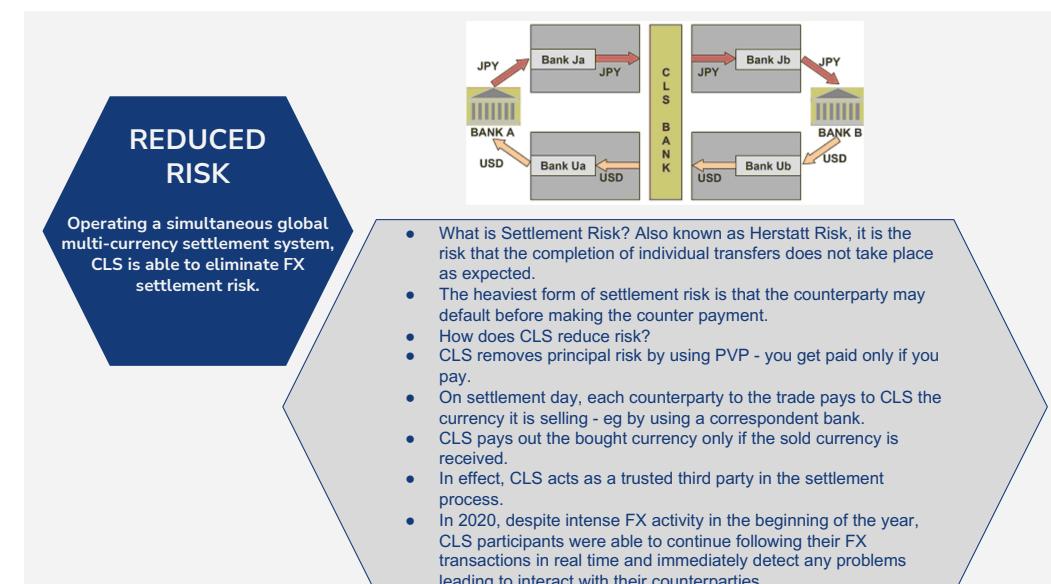
### Are Singapore's local banks members of CLS Group?

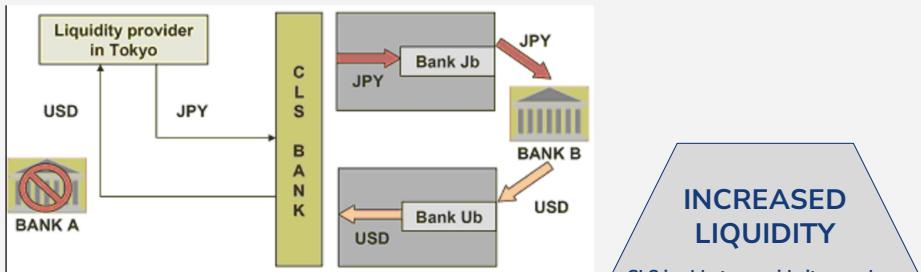
- In October 2001, **DBS**, **OCBC** and **UOB** announced that they have become shareholders of CLS Group
- Officially started settling their eligible FX trades through CLS Bank in December 2002
- On 11th September 2003, Singapore Dollar officially became the 11th eligible currency in CLS
- Established Clearing & Payment Services Pte Ltd (CAPS) in 2002 for efficiency



### What is CAPS?

- World's first collaborative payment utility designed to reduce CLS integration and operating costs
- Shared utility service where banks send their CLS foreign exchange trades reformatted in a CLS-compliant format for submission to CLS
- Forms a link between its customer banks and CLS, achieving economies of scale and efficiency for participating banks
- Differs from the majority of the CLS settlement member banks, which have traditionally built direct connections to CLS Bank





- In the figure above, Bank B was buying yen from Bank A with US dollars but Bank A failed in paying the yen.
- CLS will swap the US dollars for yen with its yen liquidity provider in Tokyo, and then give the yen to Bank B.
- This is made possible because CLS has committed standby lines of credit with major banks in each of the currencies it settles

### INCREASED LIQUIDITY

CLS is able to provide its members increased liquidity with its standby lines of credit.

### INCREASED EFFICIENCY

- CLS represents the most dramatic change in FX settlement in over 300 years.
- Previously banks had to rely on a global network of correspondents and a degree of faith that they had received their payments in one currency as they paid away another.
- CLS turns this faith into certainty.
- In an environment that is highly volatile with a high volume of transactions, CLS's 25,000 participants are able to benefit from the high degree of automation of the CLS settlement.
- This is despite most operational teams working remotely due to pandemic policies.
- CLS's system reduced its participants' operational burden.
- These integrated settlement processes, which are the same regardless of the currency, enabled the sudden increase in volumes and transactions to be absorbed, allowing operational teams to manage their day-to-day business "almost as usual".

## 03 CLS FOREIGN EXCHANGE OPERATIONS



### CLS OPERATION ENTITIES

These are usually financial institutions who are CLS members.



PARTICIPANTS



LIQUIDITY PROVIDER



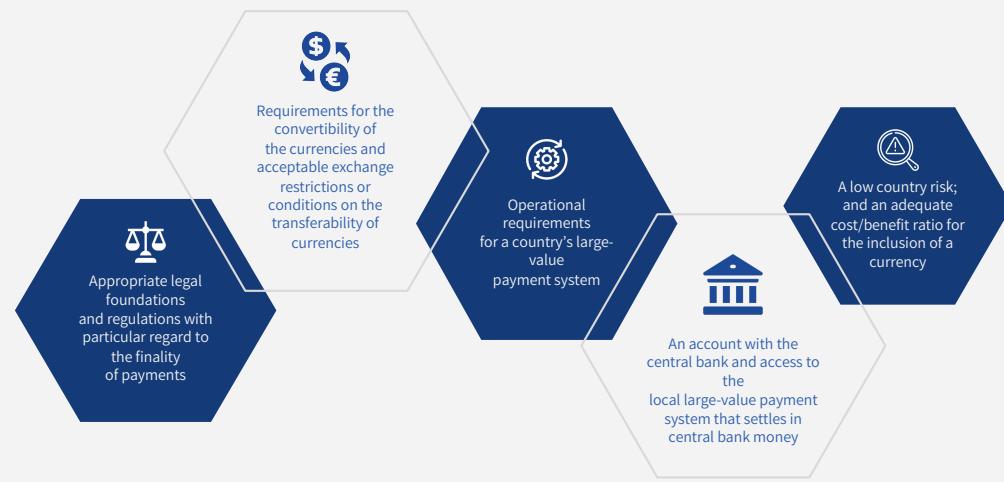
NOSTRO BANKS

A nostro account refers to an account that a bank holds in a foreign currency in another bank

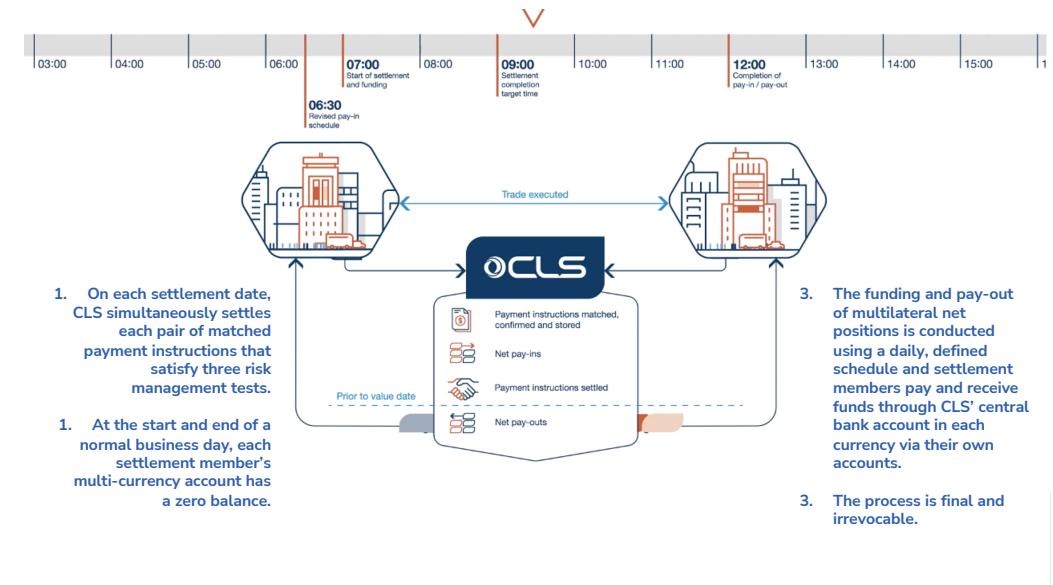
Financial institutions that enter into arrangements with the CLS Bank to help protect it from liquidity risk

Settlement members pay through domestic payments systems that have been approved by the CLS Bank

## CLS REQUIREMENTS



## THE CLS RISK MANAGEMENT



### PAYMENT INSTRUCTIONS SETTLED

From 06:30 CET CLS calculates the final net short positions of all participants in the respective currencies and draws up the revised pay-in schedule. This specifies the minimum amount that must be paid in at set times. Spreading the pay-ins like this minimizes the draw on liquidity. The settlement and funding cycle then commences.



### IN DEPTH LOOK

#### NET PAY-OUTS

CLS pay-outs on net long positions also take place step by step between 07:00 CET and 12:00 CET. The system takes each matched payment instructions from the settlement queue and checks whether it satisfies the CLS risk management tests. The relevant payment instructions are settled simultaneously and irrevocably with the associated long balances paid out to both parties.



### THANKS

For your Kind Attention