

Liquidity Management



Liquidity Management

What is Liquidity Management?

- Liquidity refers to the property of an asset to be quickly converted into cash
- Cash in hand, balances in checking accounts and investments in short term instruments such as short term fixed deposits, liquid funds, call money etc. are among the most liquid of assets on a corporate balance sheet
- Since these assets typically earn lower returns than long term investments, maintaining too high a balance reduces the profitability of the business
- Maintaining too low a level of liquidity may result in a failure to meet scheduled payments and is a big risk to a business's reputation
- Liquidity Management refers to the task of maintaining optimal level of liquidity assets to meet all commitments while not keeping large balances idle

A large corporate customer

- In Liquidity Management, we are talking about large corporates and not retail individuals or small business entities
- Intellect Liquidity Management System (LMS) deals with requirements of such customers
- Managing their corporate treasury is an extremely challenging task
- Using LMS, banks offer solutions to make this task easier

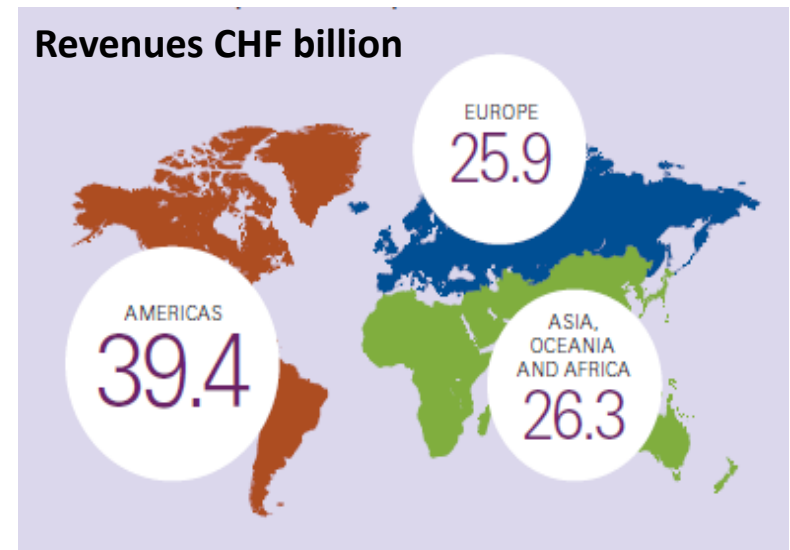


How big is Nestle?

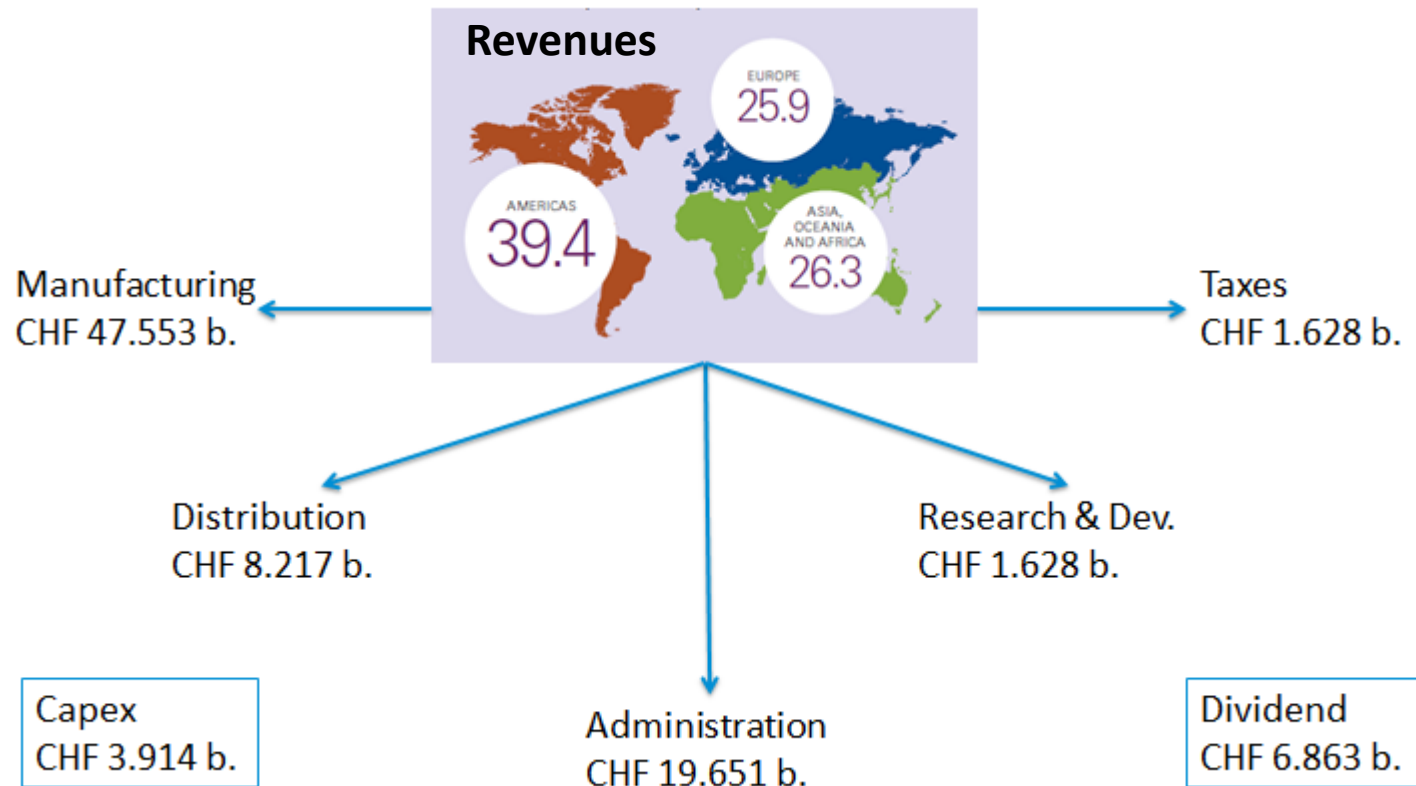


Nestle Group in 2014

- Present in 197 countries
- Has 339,000 employees
- 442 factories in 86 countries
- Sales CHF 91.612 billion (CY2014)
- Over 2000 brands
- 429 subsidiary companies in 116 countries
- Exposure to 94 currencies



Some indicative cash flows



Cash equivalents CHF 7.448 b.

Short Term Investments CHF 1.433 b.

Challenges facing a typical large corporate treasury

- Unpredictable inflows but known outflows
- Complexity of managing
 - Hundreds (even thousands) of accounts
 - Multiple banks
 - Multiple countries
 - Multiple currencies
 - Multiple Legal Entities



This is where we step in!

- What Liquidity Management does
 - Ensure availability of cash for day-to-day operations
 - Reduce borrowing costs
 - Maximize returns on surplus cash
 - Manage risks

BEST IN CLASS ALGORITHMIC LIQUIDITY MANAGEMENT SOLUTION THAT CAN ATTRACT AND RETAIN CORPORATE CLIENTS





Liquidity Management Tools

Sweeps

Notional
Pooling

Investment
Sweeps

Inter –
Company
Loans

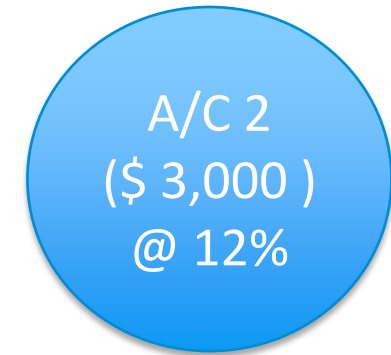
Sweeps

- Sweeps, also called “Cash Concentration”, involves automated movement of funds from one account to another
- Sweeps helps a corporate to
 - Set off credit balances in some accounts with debit balances in other accounts, thus resulting in interest savings
 - Aggregate cash surpluses in various accounts into one or more concentrated accounts, enabling more profitable deployment
 - Gives better visibility to the treasury manager about the cash position of the company
 - Takes care of regulatory & compliance restrictions and avoids human errors

Sweeps – basic business justification

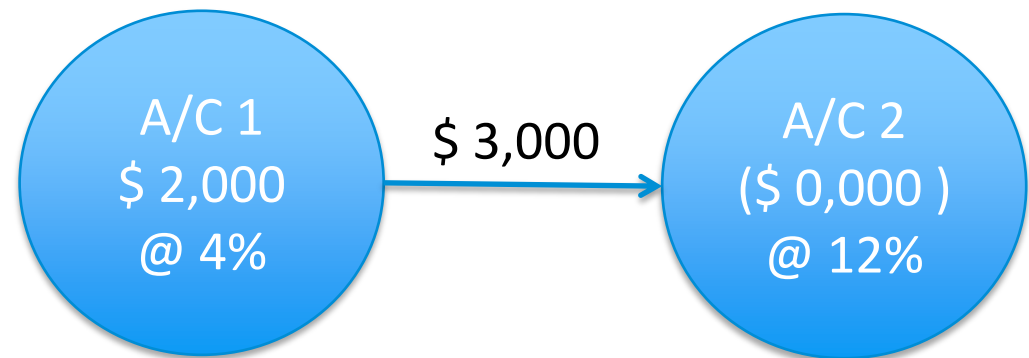
- Scenario 1: Without Sweeps

Interest Received on A/C 1 = 200
 Interest Paid on A/C 2 = (360)
 Net Interest Received / (Paid) = (160)

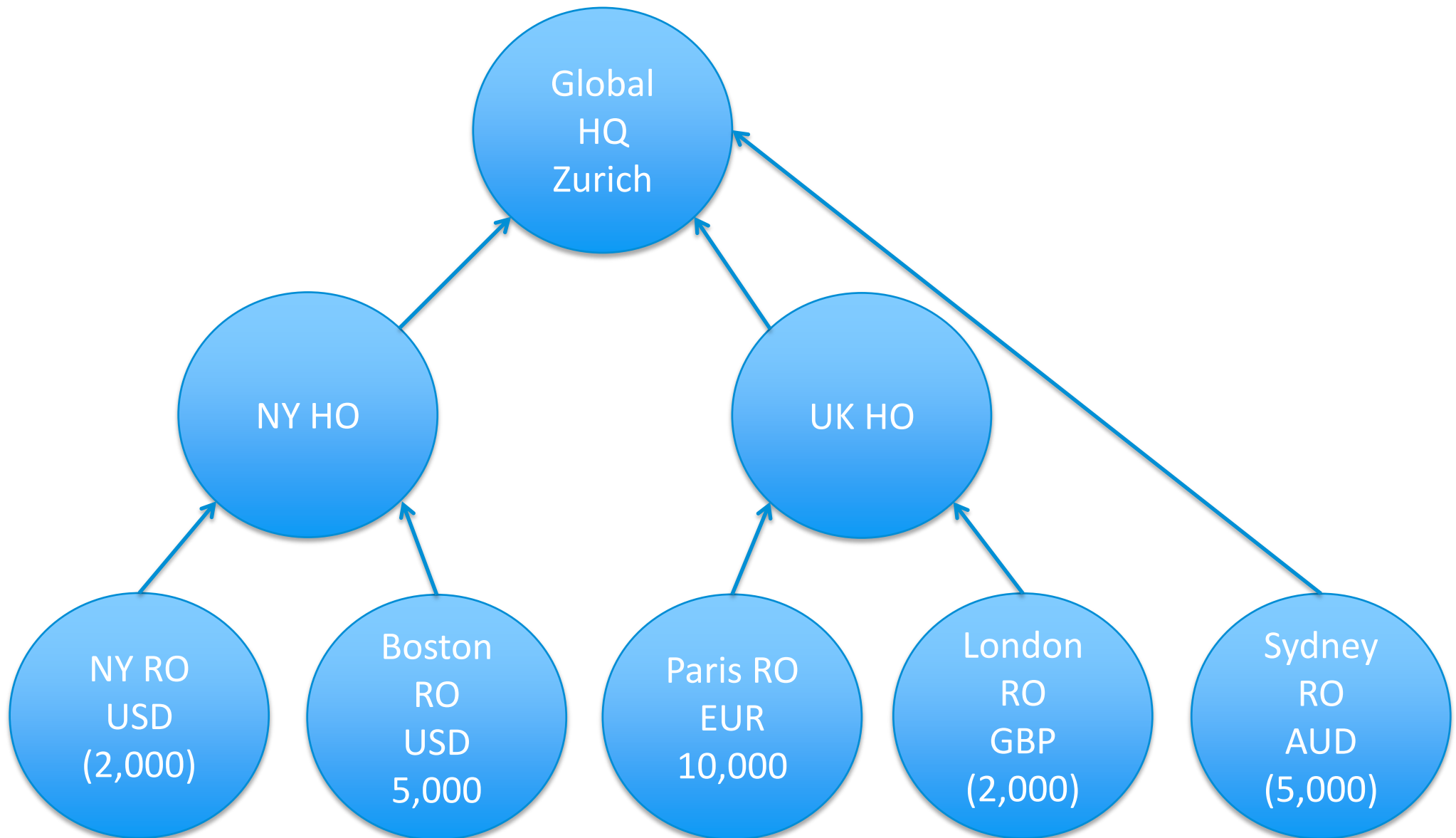


- Scenario 2: With Sweeps

Interest Received on A/C 1 = 80
 Interest Paid on A/C 2 = Nil
 Net Interest Received / (Paid) = 80



Extended Sweep Structure



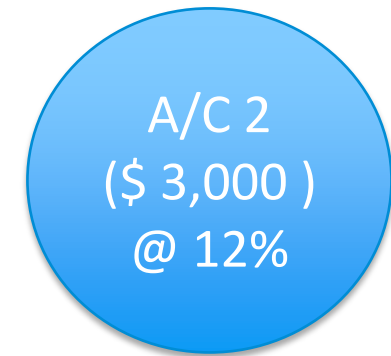
Notional Pooling

- Re-creates similar effect as in case of Sweeps, without actually moving funds from one account to another
- Can be effectively used where Sweeps is not possible or feasible due to legal or regulatory hurdles such as
 - Companies involved are distinct entities
 - Actual transfers are not possible due to legal restrictions
 - Funds Transfer costs are high, resulting in nullifying the benefits of actual transfers
- Benefits of Notional Pooling are similar to Sweeps
 - Results in savings in interest cost by offsetting debit balances with credit balances
 - Gives greater visibility to the corporate treasurer about company cash position
 - Reduces the load & cost of actual fund transfers (as compared to sweeps)

Pool – basic business justification

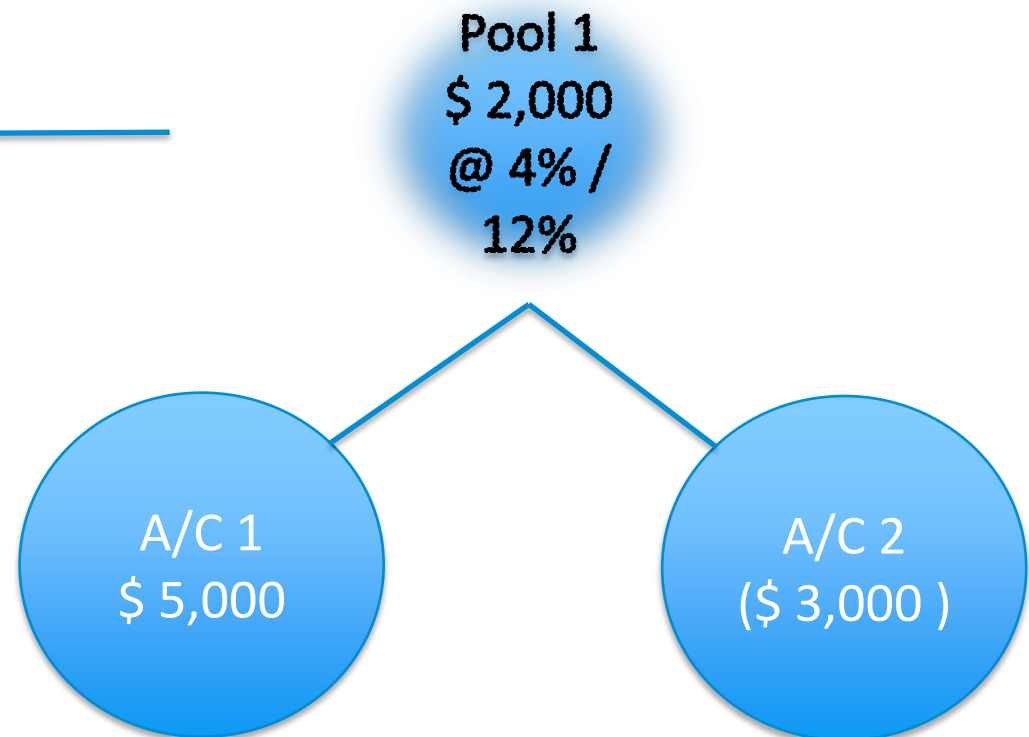
- Scenario 1: Without Pool

Interest Received on A/C 1 = 200
 Interest Paid on A/C 2 = (360)
 Net Interest Received / (Paid) = (160)



- Scenario 2: With Pool

Interest Received on A/C 1 = Nil
 Interest Paid on A/C 2 = Nil
 Interest Received on Pool = 80
*(This could be one sample model.
 There are various options available)*



Investment Sweeps

- Investment Sweeps is a solution which automatically transfers surplus funds into higher yielding investment vehicles to effectively manage liquidity and provide optimal returns
- Funds can be transferred to
 - Term Deposits
 - Money Market Funds (MMFs)
- It leverages the existing capability of LMS to provide a value added service to the customer
- It helps the corporate ensure that its funds are never lying idle in non-interest bearing accounts
- It helps the bank to earn extra income and garner greater wallet share of business from its corporate customer

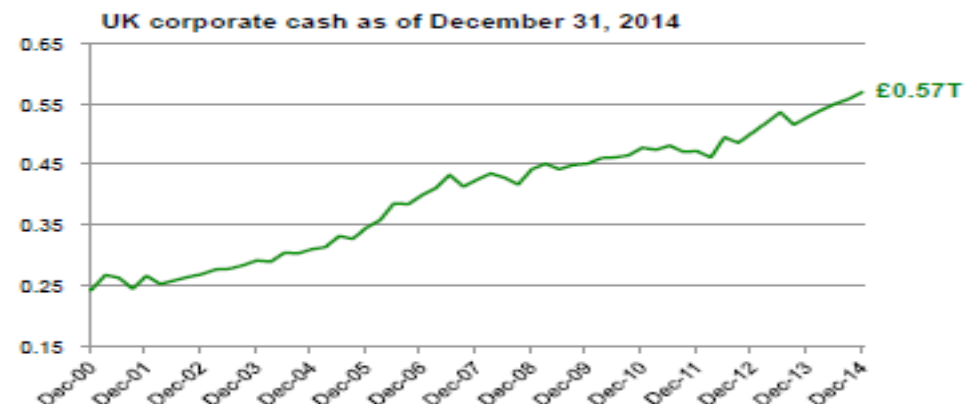
How much corporate cash is lying around the world?



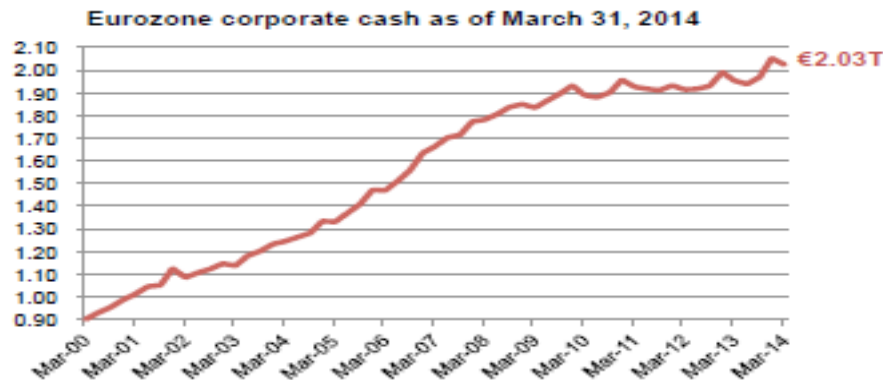
Corporate Cash Levels



Source: Federal Reserve, Treasury Strategies



Source: Office of National Statistics, Treasury Strategies

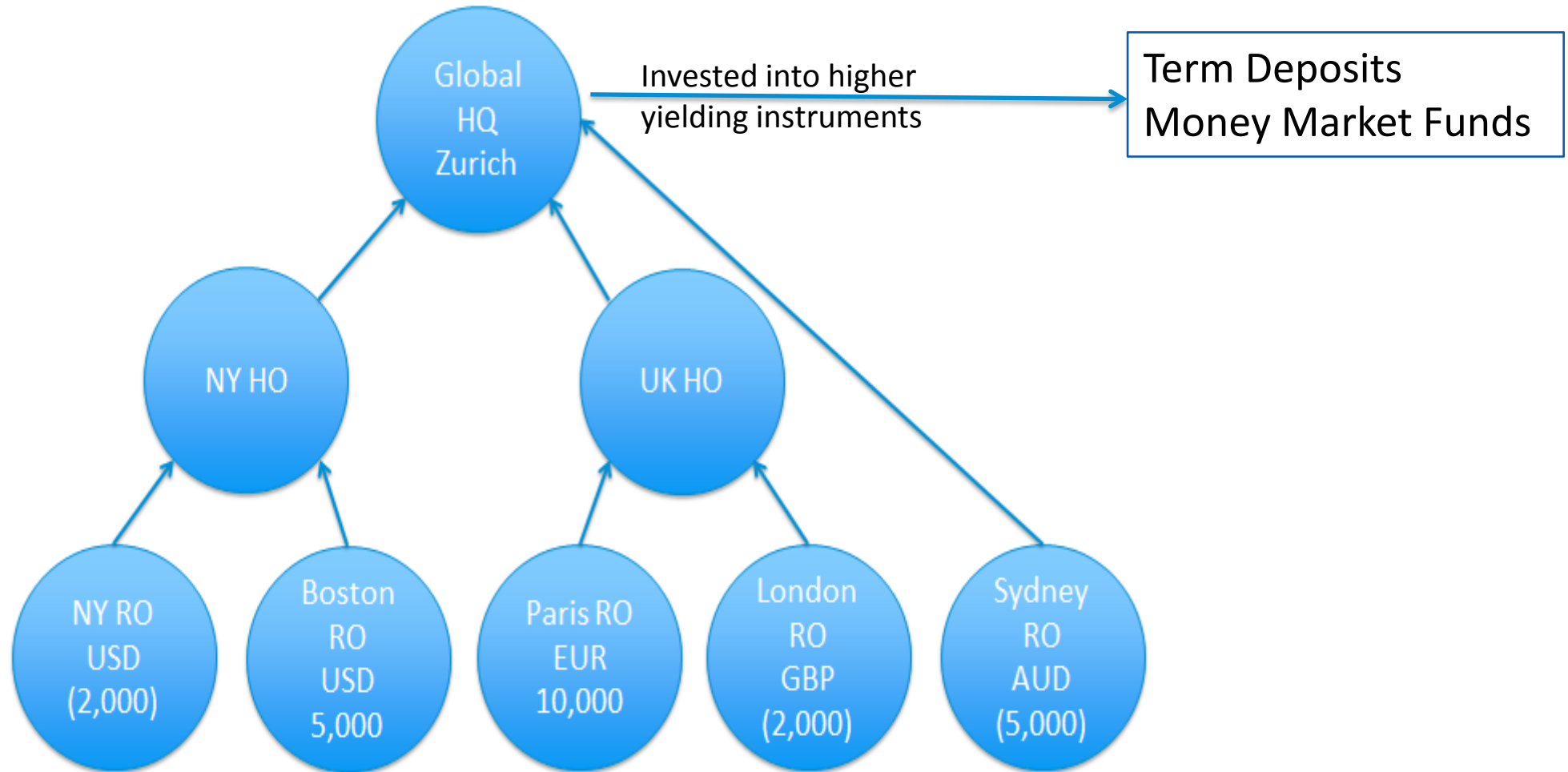


Source: European Central Bank, Treasury Strategies



Source: Bank of Japan, Treasury Strategies

Investment Sweeps – business justification

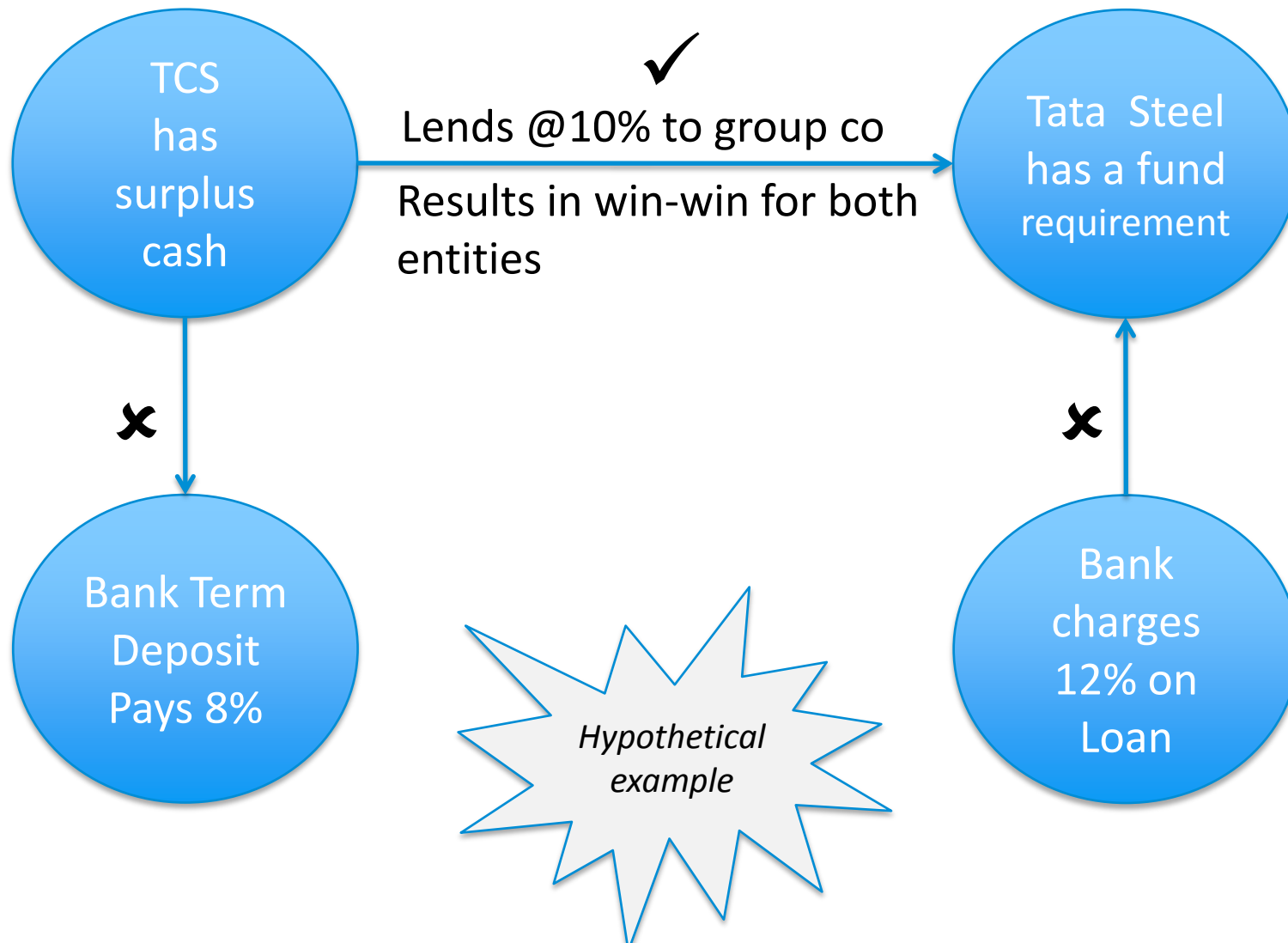


Inter Company Loans

- Inter Company Loan is an arrangement between two or more corporates (usually belonging to the same group / ownership) to lend / borrow surplus money between each other
- ICL arrangements create a win-win situation for both borrower & the lender by leading to
 - Savings in borrowing cost for the borrower
 - Higher returns on cash surpluses for the lender
 - Savings in operational costs for both the parties
- Under ICL, bank provides a service to manage & track ICL arrangements on behalf of the corporates.
- Bank itself is not involved in lending or borrowing.
- It is a fee based value added service

ICL – Basic business justification

- Corporates with surplus cash can lend to group companies with a cash deficit, resulting in savings for both the entities





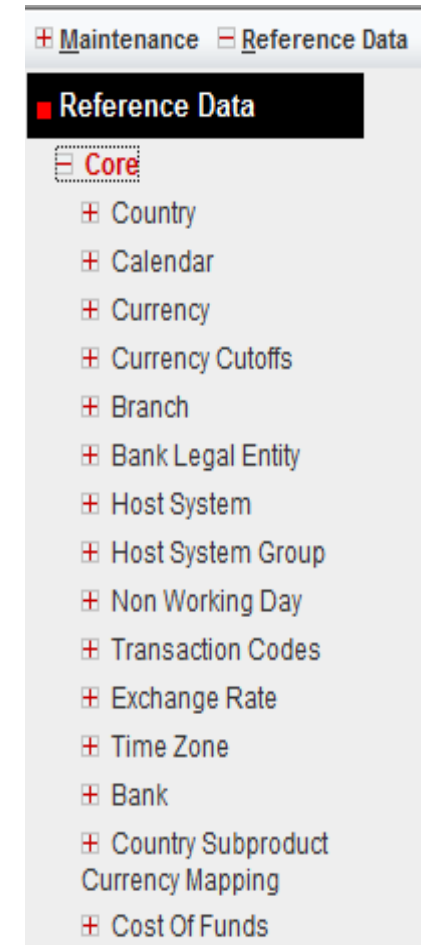
Common Functionalities

Common Functionalities

- Common maintenances & functionalities are used throughout the application by all the modules
- They refer to areas such as
 - Reference Data
 - Real Time Funds Check (RTFC)
 - Dashboards
 - Queries & Reports
- Reference Data can further be classified into Core Data, System Related, Customer & Account Related and Interest related data
- Most of these are one time maintenances configured at the time of implementation and involve no processing

Core Data

- Defines the broad scope of the LMS implementation
- Some examples of Core Data are
 - Country
 - Currency
 - Calendar
 - Branch
 - Host
 - Time Zones
 - Bank Legal Entity etc.
- Core Data is maintained as a one time set up & rarely changed
- Some of the values in these could be factory shipped based on accepted international standards, such as country & currency codes



Country

- Maintains the countries which will be used in the system
- Besides other parameters, a Calendar, Time Zone & Currencies will be mapped to a country
- Currencies will be validated for accounts opened under that country
- LMS also supports negative interest rates. For a country, whether negative interest rates should be allowed or not can be maintained. System provides three options:
 - Yes, Base Rate + Offset
 - Yes, Base Rate Only
 - Zero, if negative
 - Yes, Base Rate + Offset (Calculated)If calculated interest rate is negative, the applied rate will be as per the option chosen above

Calendar

- Defines a Calendar Code and identifies Weekends applicable for the same
- A “SYSTEM” calendar is pre-defined in the system. In addition, calendars can be maintained at four different levels:
 - Country
 - Currency
 - Branch
 - Host
- Other holidays are defined using the Non Working Day screen.
- Holidays as per all of the above will be inherited by the account
- A change in a Holiday results in a re-computation of “Next Action Date” for all instructions using accounts affected by the change

Currency

- Captures all currencies in which bank maintains accounts or supports transactions
- Parameters used in interest or sweep amount calculations are maintained, such as Carry Forward Allowed, Rounding Logic and Day Divisor.
- Negative Interest Allowed is mandatory to be captured for the currency. It will be overridden if Country level parameter is also maintained.
- In a separate screen, currency pairs, exchange rates and other related parameters are maintained.
- The source from where the rate feed will be drawn is also captured
 - Bloomberg
 - Reuters

Bank Legal Entity (BLE)

- BLE refers to a separate legal entity within the same implementing bank
- Every BLE should be assigned a country, time zone and a currency
- Every account is linked to a BLE

Host System

- A bank may have multiple back office systems where the accounts are held
- A “Host” is a logical entity within LMS which represents such a system
- Bank syncs all parameters of the host, such as time zone with the actual external system
- The Host system of the account with reference to which a sweep instruction is run is called the Domicile Host
 - In case of sweep between internal accounts, host of the Control Account is the Domicile Host
 - In case of sweep between an internal and an external account, host of the Internal account is the Domicile Host
- Host systems can be grouped into Host System Group, so that sweeps of all of them can be executed together

Host System

- Every Customer and Account belongs to a Host
- Bank defines a calendar and a time zone for each Host

Processing Mode

- LMS implementation can be Balance based or Transaction based
 - Balance Based: Balances are received from the external system
 - Transaction Based: Transaction data is received from the external system and balances are maintained in LMS
- Bank also configures type of balance that will be used, such as
 - Available Balance
 - Ledger Balance
 - Value Date Balance
- Available balance types are defined at Host System & Sub-product level

Transaction Codes

- Transaction Codes are unique identifiers for type of transactions in the system
- They are used to pass transaction narration along with the accounting entry to the external system
- System supports maximum 4 lines X 35 characters each width for narration
- List of Transaction Codes is fixed and cannot be changed
- Bank can change the Description & Narration text for a code
- Dynamic pickup based on pre-defined tags is also supported. A list of 25 different tags are available in the system such as <CTRL AC BIC & SORT CD>, <CTRA AC NAME>, <STRUCTURE ID>, <CR CCY>, <CR AC NO>

Bank Definition

- Parameters related to all the banks which will be used in the system are captured, such as
 - Name
 - Address
 - Contact Details such as phone, fax, email etc.
 - BIC Code
- A parameter also identifies whether the bank is a “own bank” or an “external bank”
- Based on this parameter, accounts will be identified as Internal or External for the purposes of Sweeps

Other Reference Data

- Module specific parameters for Sweeps & Notional Pooling
- Customer Related Data includes the Customer CIF, sector & segment information
- Account Related Data holds the GL definition, besides the customer account details
- Interest Related Data holds the definition of Principal & Interest, Accrual & Posting cycles etc.

Customer

- Customer id, Name, Address, Contact Details etc. of the customer is captured
- Sector and segment of the customer can be captured
- Using the “Topmost Holding Corporate”, Holding Company – Subsidiary Company structure can be created
- FATCA compliance status of the customer can be captured. If FATCA compliance is “No”, the WHT tax code can be captured.
- The Tax Codes in the pick list will be of Tax Type = Penalty Withholding Tax

Account

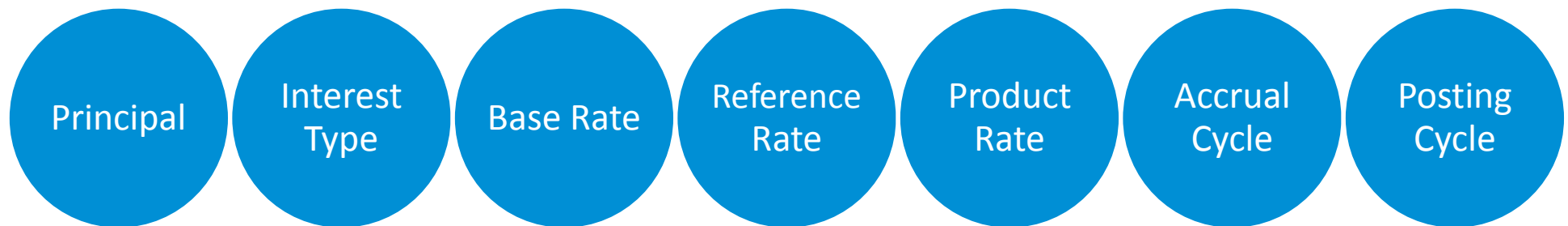
- Account number is the combination of the branch code and the account number as maintained in the Host system
- Applicable BIC is not mandatory but will be required if cross bank sweeps are to be set up using the account
- If Resident = N, Country of Residence is to be separately captured. For Resident accounts, country of residence will be taken from the BLE

GL Account

- Accounts which are defined as 'bank' accounts are used for various accounting entries such as for interest accrual & posting, tax etc. throughout the application
- The type of GL will be selected for each such as account such as Income, Expense, payable, Receivable etc.
- For a Host – Currency combination, only one account per Account Type can be selected (i.e. account type cannot be repeated in the Account Grid)

Interest related data

- Interest related set up defined in Reference Data is used at several places such as in
 - Notional Pooling
 - Standalone Interest Calculations
 - ICL Module
- Interest set up involves defining the following:






Interest Set up - Principal

- Standard Operands are available in the system which can be used to define Principal e.g.
 - BALANCE
 - DEBIT_BALANCE
 - CREDIT BALANCE
 - OVERDRAFT_LIMIT etc.
- These can be used to define principal e.g.
 - If interest is to be charged on Unutilized Limit, principal can be defined as below:

Code*	ODLIMIT_MINUS_DR	Description	OD Limit Minus Debit Balance
-------	------------------	-------------	------------------------------

Function Details

Function ID*	Operand 1 *	Operand 2 #	Operator
Select	Select__	Select__	Select__

Function ID	Operand 1	Operand 2	Operator
AS_IS	OVERDRAFT_LIMIT		MINUS
AS_IS	DEBIT_BALANCE		

Interest set up – Interest Type

- Interest Type defines an Interest Code and holds its attributes, such as
 - Debit or Credit
 - Periodic or Non-periodic
 - Apply to whom (Pool, Pool Participants, Standalone Accounts) etc.
- The logic for deriving interest type using the Principal defined earlier is also maintained here

Interest Type		Remarks	
Interest Type Code*	SCI	Description*	Standard Credit Interest
Debit Credit Flag*	Credit	Rate Source*	RATE
Periodic*	No	Interest Type Applicability*	Pool and Participant
Applied on Non-working Day*	<input checked="" type="radio"/> Yes <input type="radio"/> No	Interest Type As Fee*	No
Calculate			
Principal*	BALANCE		
Interest Type Criteria*			
Operand 1	Condition	Operand2	Logical Operator
Select	Please Select__	Select__	Please Select__
<input type="button" value="+"/> <input type="button" value="→"/> <input type="button" value="←"/>			
Operand 1	Condition	Operand2	Logical Operator
BALANCE	>=	ZERO	

Interest set up – Rates

- The Rate set up involves Base Rate, Reference Rate and Product Rates
- Base Rates are typically standard rates such as LIBOR, MIBOR etc. captured in the system
- Reference Rate is actually a 'band' created by adding margins to Base Rates.
- The actual rates used for application of interest will either be the Product Rate or the rate maintained at the individual Account Linkage level.

Accrual & Posting Cycles

- Accrual & Posting cycles can be defined which are used at various places in the application

Accrual Cycle

Closure Details

Code *	DAILY	Description*	DAILY
Frequency Type *	DAILY	Frequency Option*	1 Day
Non-working Day Option*	Previous Working Day		

Posting Cycle

Closure Details

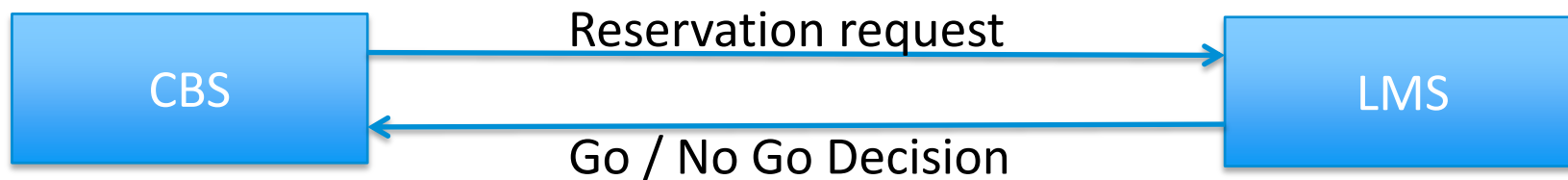
Code*	MONTHLY	Description*	Monthly Posting
Value date same as Posting Date*	<input checked="" type="radio"/> Yes <input type="radio"/> No		
Frequency Type*	MONTHLY	Frequency Option#	1 Month
Frequency Unit1#	1stWeek	Frequency Unit2#	Monday
Non-working Day Option#	Previous Working Day	Settlement Period*	0 Days
Credit Interest Delay Period	0 Days	Debit Interest Delay Period	0 Days
Working day*	Yes		

Real Time Funds Check (RTFC)

- RTFC is a feature that allows for checking of funds or limits in accounts or notional pools when a transaction is to be made in the bank's system
- Two flavors of RTFC:
 - Funds Checking – a real time process to determine whether a transaction can go through or not
 - Limits Checking – a post facto process to determine whether limit has been breached
- System level configuration determines whether
 - RTFC is enabled or disabled
 - Type of RTFC
- If enabled, RTFC can be applied / disabled for individual Sweep / Pool structures
- RTFC checks for availability of funds / limits right up the sweep / pool hierarchy

RTFC

- In Funds Check, a “reservation” request acts as a trigger to initiate RTFC check
- Reservation request can be for
 - Debit Reservation (both financial & non financial checks will be done)
 - Credit Reservation (only non financial checks will be done)



- Various configurations which allow banks to determine
 - Types of balances to be used such as Available / Ledger balance
 - Formulae for performing fund checks against balances, such as inclusive / exclusive of
 - Limits
 - Net position as per ICL
 - Accounts that lie below the account in structure hierarchy
 - Whether balances should be received or built internally

Operations Dashboard

- Operations Dashboard (“Health Check”) provides various useful query features such as
 - Monitor daily holiday status of entities such as
 - Host
 - Currency
 - Country &
 - BLE
 - Check process status (EOI / Sweep or Pooling execution in progress / EOD / BOD) for given Host
 - Perform daily monitoring of Sweep Execution
 - Get intra-day snapshots
 - Drill down to accounting entries
- Users can perform searches giving various search parameters such as date & times, entity names, execution modes, time zones etc.
- Results can be exported to Excel for user convenience



THE WORLD'S FIRST COMPLETE GLOBAL TRANSACTION BANKING PLATFORM