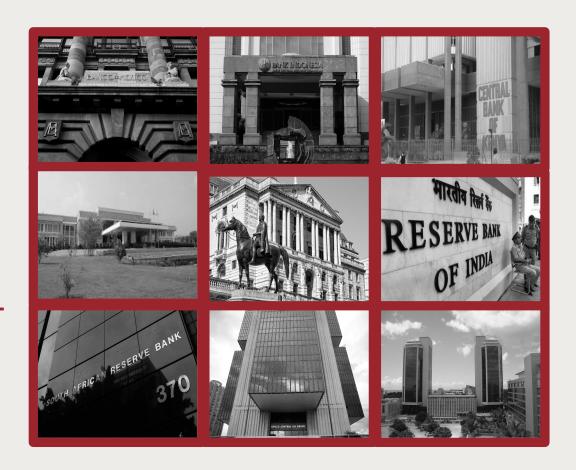


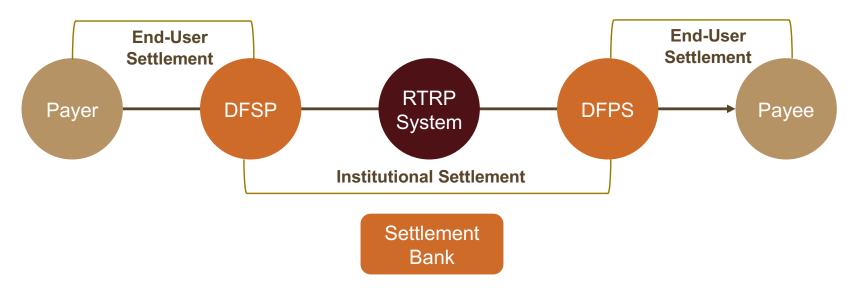
DFSP Settlement in Real-Time Retail Payments Systems

A Level One Project Research Report

Draft for Comment – June 2020 Glenbrook Partners for The Bill & Melinda Gates Foundation



## Scope and Definition: Institutional and End-User Settlements



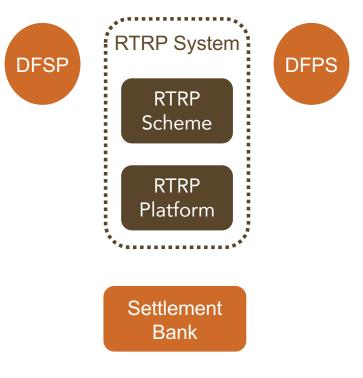
• Level One principles demand that end-user settlement be done on a real-time (near immediate) basis, and that institutional settlement be done on a same-day basis.

### Multilateral Deferred Net Settlement – Components and Relationships

**Multilateral** settlement obligations are calculated across the entire set of participants, rather than bilaterally.

**Deferred** means that the posting of settlement obligations to settlement bank accounts happens after the transaction occurs.

**Net** means that settlement obligations of participants are calculated as the net of obligations arising out of sending and receiving transactions.



The **scheme** writes the business rules. Rules require each DFSP to open a bank account at the Settlement Bank\*. Rules specify the settlement operating functions required of the RTRP Platform and participants.

The **platform** provides settlement operating functionality as specified in the scheme rules.

The **settlement bank** provides settlement bank accounts, and by agreement with the scheme provides operating functionality to support settlement requirements. Some central banks offer defined "Settlement Services" to support various payments systems in their jurisdiction.

# Key Concepts / Variables

A typical settlement flow includes the concepts below. The choices made for the highlighted terms have a significant impact on Level One Project objectives.

- 1. Settlement Windows
- 2. The Participant Ledger
- 3. Transaction Settlement Approval
- 4. Setting Debit or Net Debit Cap Values
- 5. Settlement Bank Accounts
- 6. Posting of Settlement Entries
- 7. Management of Settlement Risk
- 8. Tiered Access for RTRP Systems

#### Settlement Risk Management in Multilateral Deferred Net Settlement

Introduction: Two Points of Control are Needed

#### **Settlement Window**

Time

At the time of transaction execution, to ensure that the sending participant has liquidity permission (in the form of a net debit cap) in place to handle that incremental transaction at that point in time.

At the time of posting of the settlement entry to participants' bank accounts at the settlement bank, to ensure that there are funds in that account to cover any negative entries posted.

Even in a "prefunded" scheme, there is the risk that settlement funds that are in the settlement bank account at the time of the transaction are no longer there when the settlement entry is posted. Having multiple intra-day settlement windows and having settlement bank accounts which are used for multiple purposes, makes controlling this risk difficult.

# Multilateral Deferred Net Settlement – An Aspirational L1P Model

Goals	Effective Practices
Minimize Settlement Risk	The settlement bank accounts of DFSPs are either dedicated to settlement of the RTRP system, or allow freezing of designated funds
Minimize DFSP Liquidity Costs	<ul> <li>The scheme sets multiple windows within each calendar day.</li> <li>Scheme rules require pre-funding of the settlement account. The platform uses an automated net debit cap calculation, tied to funds in the DFSP's settlement bank account.</li> <li>The posting of settlement entries is fully automated between the platform and the settlement bank.</li> <li>The settlement bank can receive settlement entry postings continuously, without interruptions for holidays or weekends.</li> </ul>
Operational Efficiency	<ul> <li>Non-banks as well as banks are direct settlement participants and have bank accounts at the settlement bank.</li> <li>Scheme rules require pre-funding of the settlement account. The platform uses an automated net debit cap calculation, tied to funds in the DFSP's settlement bank account.</li> <li>The platform keeps a dynamic ledger of each DFSPs position, including provisional debits for the sending DFSP.</li> </ul>

# The Level One Project

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