**Bank liquidity**: Access to cash and other sources of funds to meet day-today expenses and commitments

**Bank liquidity risk**: The risk to earnings or capital related to a bank's ability to meet its obligations to depositors and the needs of borrowers by turning assets into cash quickly with minimal loss or being able to borrow funds when needed and having funds available to execute profitable securities trading activities; this can affect both sides of the balance sheet

- Asset side
  – Risk from OBS loan commitments and other credit lines
  – Problems associated with 'quick' asset sales
  – High costs for turning illiquid assets into cash
  – Low sales price; in worst case, fire-sale price
  – Fire sale price: the price received for an asset that has to be liquidated immediately
- Liability side
  – Depositors and other claimholders decide to cash in their financial claims immediately.
  – Consequence: the DIs have to borrow additional funds or sell assets.
  – DIs need to be able to predict the distribution of net deposit drains
  – Net deposit drains: the difference between deposit withdrawals and deposit additions on any specific normal banking day

*Importance of bank liquidity:*

Raising funds to meet unexpected liquidity needs will be costly and impact adversely on bank profitability

Bank crisis is serious as depositors lose confidence in their bank, bank run may occur (large number of withdraw deposits) and costs associated with raising extra liquidity may be so high that the bank becomes insolvent

*Interbank payments:*

Customers access funds through currency withdrawals, through interbank payments (if paid to another person in same bank there is no need for liquidity however if to a different bank they need to make an interbank payment – requires the bank to have funds available and bank liquidity management is needed)

Banks are required to hold settlement accounts with the RBA called ESAs

ESA – Exchange settlement accounts

- It is required that all interbank payments must be settled by payments from the paying bank's ESA to the receiving bank's ESA
- ESA's are held at the central bank (RBA)
- Funds held in ESAs are called Cash or ES funds
- May not be overdrawn – if funds not there payment is not made
- Earn interest at 25 basis points below RBA cash rate (market rate)
- If bank has shortage of funds in ESA it can borrow from a 'surplus' bank or access funds from RBA (by selling government securities

to RBA or selling repos to RBA [intra-day repos = repay before the end of the day, inter-day repos = repay after the end of the day])

### Interbank payments diagram
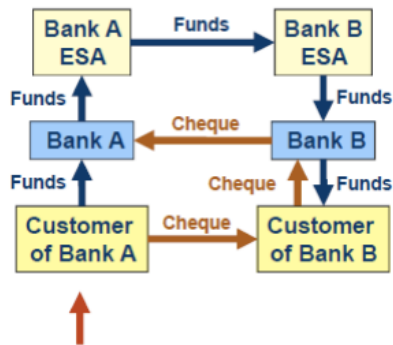


DNS – Deferred Net Settlement – Tradition system – Large numbers of smaller payments

    Net position of each bank is calculated each day and a debit or credit appears in each ESA next morning

    Advantages: Minimises system's need for liquidity; low cost: relatively simple and admin generally straightforward

    Disadvantages: Settlement risk: delay in finalising payment; systematic risk: default by one bank may cause liquidity/insolvency for other banks; may encourage banks to operate loose intra-day liquidity positions which can involve more risk

RTGS – Real Time Gross Settlement – Started June 1998 – High value and/or high priority payments

    Each payment is processed separated (gross) in real time

    Irrevocable settlement occurs at the time the payment is accepted into system

    High value and/or high priority transactions

    Advantages: Reduces interbank settlement risk and systematic risk (on average day payments between bank greater than $100 billion, high value transactions greater than $5 million are settled as they occur, real time exchange of above 90% of value of payments); incentive for banks to manage liquidity carefully; limits risks for RBA (and taxpayers)

    Disadvantages: More sophisticated (expensive) systems required

*Sources of liquidity:*

1. Scheduled liquidity – it is important to monitor the inflow of loan repayments and new deposits

    Loan drawdowns and deposit withdrawals generate funds outflows and needs for more liquidity

    A bank can reduce liquidity needs by matching outflows with inflows (i.e. may put a limit on the maximum $ value of loan drawdowns authorised per period so this matches projected inflows)

    But if a bank has net liquidity needs (outflows exceed inflows) it can access liquidity from asset liquidity or liability liquidity

    Inflows

        -Deposits (L)

           -Loan repayments (A)

Outflows

           -Deposit withdrawals (L)

           -New loans (A)

2. Asset liquidity (stored liquidity)
   To access asset liquidity the bank must sell assets
   Liquid assets are assets that can be sold at short notice without loss of value (notes and coins, ES funds, bank bills, certificates of deposit & promissory notes issued by other banks, CGS and semi-government securities (short-term)
   The choice of which assets to hold is influenced by: banks risk and return preferences (trade off between yield and liquidity, yield and credit risk), need to be able to access intra-day repos to maintain balances in the ESA (only eligible securities can be used so each bank must maintain a holding of these type of securities), may choose maturities to match the maturity of the asset with the liquidity need (minimises transactions costs and price risk, but exact timing of liquidity needs may not be known)

3. Liability liquidity (purchased liquidity)
   To access liability liquidity the bank must borrow: from other banks on interbank market, from other (non-bank) financial institutions, from financial markets by issuing securities (sell liabilities such as repos and CDs)