FINANCIAL MARKET LIQUIDITY

HIGH-LEVEL RESERVE MANAGEMENT CONFERENCE 2017

NORGES BANK

Liquidity of FX reserves

Different considerations depending on context

Construction

- Assumptions:
  - International crisis
  - Market turmoil
  - Flight to quality
  - Poor liquidity
- Implications:
  - Size
  - Asset composition

Management

- Transactions
  - Counterparties
  - Platforms
  - Size
  - Time
- Positions
  - Size
  - Horizon
- Opportunities

Construction

Asset/Liability Management

- Stated purposes of reserves
  - Monetary policy
  - Financial stability
  - International commitments
- Estimating draw down for each purpose
  - Severe, not worst thinkable scenario
  - Input from in-house experts
- Assuming funds needed for all purposes simultaniously
  - Summing amounts needed for each purpose
  - Arrive at an amount that should be readily available, and therefore held in liquid assets
- Since this estimate is highly uncertain there is good reason to hold extra reserves
  - Improves central bank credibility - could prevent need to use funds
  - Can be invested with more emphasis on return
  - Should still be fairly liquid since it is reasonbable to believe the extra funds will be reallocated to more liquid assets in (run up to) crises

Liquidity when needed

Assumptions about market conditions when reserves are needed

- Assumptions about liquidity of different assets in crises based on:
  - Quantitative measures of current market conditions - a starting point
  - Liquidity events in recent years (Treasuries 2014, Bund 2015, GBP 2016)
  - Developments in market structure
    - Regulation of banks and brokers
    - Unconventional monetary policy
    - Investor behavior
    - Algo trading
  - Experience from recent crises (US financial crisis, Euro debt crises)

- Conclusions:
  - Only the safest and most liquid government bond markets assumed to be liquid enough in crises for the purpose of FX reserves
  - Even within this limited universe diversification can prove very valuable
    - Single issuer might be at the heart of crisis (US debt ceiling, Euro break-up)
    - Different segments of bond univers – duration, on-/off-the-run, bills/notes/bonds

Norwegian FX Reserves

Two-tier construction

- Fixed Income Portfolio 65 %
  - Government bonds, cash
  - 50 % USD, 34 % EUR, 8 % GBP, 8 % JPY
  - 0 – 10 years maturity
- Equity Portfolio 35 %
  - Market weighted
  - USD, EUR, GBP, JPY, CHF, CAD, AUD, SEK, DKK
  - Large cap and mid cap

Management

Operations set up according to liquidity conditions

- Success factors
  - Efficient implementation
  - Low transaction costs
- Variables
  - Products
  - Organization
  - Counterparties
  - Platforms
  - Deal size
  - Time of trade
- Opportunities
  - Liquidity events
  - Need to follow markets closely to take advantage

Continous work

More focus on construction

- Rapidly shifting liquidity conditions

- Need to evaluate asset classes continously
  - Sovereign issuers
  - Supranationals/Agencies
  - Covered bonds
  - Other?

  - Derivatives; more activity vs. underlying assets (benefits?)

  - Equity; share, risk premia

  - Renmimbi

- Central banks’ use of balance sheets
- Important to have good process within organization