Government Cash Management: Challenges, Techniques and Sound Practice

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The Objectives of Cash Management

Ensuring cash is available to meet commitments

*Overriding objective – other objectives must be subject to it*

*But other objectives are important*

- Economising on cash within government
  - Saving costs
  - Reducing risk
- Managing efficiently the government’s aggregate short-term cash flow
  - Both cash deficits and cash surpluses
- In such a way as also to benefit
  - Debt management
  - Monetary policy
  - Financial markets (market liquidity and infrastructure)
# Approaches to Cash Management

## Traditional (Passive) Approach
- Essentially passive
- Monitoring cash balances, maintaining cash buffer to handle both volatility and unanticipated outflows
- If necessary restraining / slowing expenditures or delaying bill payments - cash “rationing” is not cash management

## Modern (Active) Approach
- Managing cash more actively
- Trying to smooth weekly or daily cash flow by more active borrowing and lending in money market
- Allows lower average cash buffer – with benefits to other policies
- Gives tools to protect expenditure plans from cash flow volatility

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OECD and many middle-income countries (especially in Europe) moving toward more active approach
The Policy Challenges are Inter-related...

1. Budget Execution
   - Expenditure etc outflows
   - Tax etc inflows

2. Targeting Balances
   - Cash Balance (TSA)
     - Debt redemptions, less capital receipts
     - Debt issuance

3. Monetary Policy

4. Cash Flow Management in Money Market
   - Debt redemptions, less capital receipts
   - Debt issuance

5. Market Development

Characteristics of Sound International Practice - 1

1. Processing of government transactions with few handling steps – reliance on electronic transactions, centralised systems
   - Differences between countries in degree to which the payments process is centralised within the Treasury / central bank or relies on commercial banking system

2. Treasury Single Account (TSA): all Government cash balances aggregated in a single account at central bank
   - Any balances in commercial banks should be swept into TSA overnight

3. Internal systems to forecast daily government flows of receipts and payments
   - To ensure budgeted expenditure is smoothly financed
   - To devise strategies for smoothing the cash flow profile, minimising idle cash balances and reducing borrowing costs
   - To contribute to monetary policy implementation [Less fluctuation in government cash flows => less fluctuation in money market liquidity]
   - Good forecasts rely heavily on those in spending units and tax departments closest to cash flow
Characteristics of Sound International Practice - 2

4. Agreements between MoF/Treasury and central bank on information flows & respective responsibilities
   – Flow of information from MoF on government's expected cash flows and balance at central bank
   – Flow of information to MoF on government's actual balance at central bank (in close to real time)
   – Remuneration of accounts – preferably at market rate

5. Close interaction between government debt and cash management

6. Use of Treasury Bills (and repo and reverse repo) to help manage balances and timing mismatches
   – Especially short-term Treasury Bills

7. Efficient payment infrastructure
Typical Phases of Development

• Phase 1: Treasury Single Account
  – integration of government accounts
  – sweeping of overnight balances into single MoF account at central bank

• Phase 2: Forecasting capability
  – the development of a capability within MoF to monitor and forecast flows in and out of government – i.e. changes in MoF balances at central bank

• Phase 3: Rough tuning
  – the issue of Treasury bills (or other bills)
  – issuance pattern designed to offset liquidity impact of net daily cash flows, i.e. to smooth the change in MoF’s balance at the central bank
  – some management of structural surpluses

• Phase 4: Fine tuning
  – more active policies, drawing on a wider range of instruments or institutional options, to smooth more fully MoF’s balance at central bank
  – Not a priority for emerging market countries – focus on phase 1-3
Cash Flow Forecasting and Cash Balance Management

Effective cash management requires both.....

**Sources of cash**
- Tax receipts
- Investment income
- Asset sales
- Debt issuance
- Other cash inflows

**Uses of cash**
- Primary expenditure
- Asset purchases
- Debt service
- “Directed deposits”
- Other cash outflows

**Cash Balance**

- Cash flow forecasting asks...
  - During each period, how much cash do we have coming in and going out?
  - As at the end of each period, how much cash do we have at hand?

- Cash balance management asks...
  - What actions do we take to ensure that we have the right amount of cash at hand?

Cash Buffer depends on:
The volatility of daily cash flows; the ability to forecast those cash flows; the scope to manage unanticipated fluctuations and the timescale over which they can be managed (e.g. how soon can additional TBills be issued?); and safety nets available (e.g. credit lines from commercial banks)
Management of Cash Balances

• Separately identify
  – Management of day to day cash, including the cash buffer
  – Management of a structural surplus (net of any debt repayment)

• Structural surplus: distinguish between
  – Cash that might be needed one day [eg in 6 months] – usually managed by cash managers alongside the cash buffer
  – Longer-term funds
    • Sovereign wealth funds, funds for future generations, fiscal stabilisation funds, pension liability funds etc
    • Managed separately – in context of government’s whole balance sheet
  – Directed-deposits

• Governments need access to liquidity – implies some cash balances
Cash Flow Forecasting: the Aim

- Objective is to anticipate cash needs of government
- Forecasts needed of total net cash flow (hence also cash balance)
  - Receipts and payments (above the line); and
  - Financing transactions (below the line) - debt redemptions, new borrowing, also eg assets sales
- Focus is domestic currency
  - May need to identify FX, donor flows separately (depends on TSA structure)
- Forecast information is needed for some period ahead
  - Timing of future peaks and troughs must be identified to make decisions about the maturity of required borrowing or lending
- Ideally
  - Daily (if necessary weekly) some 3 months ahead
  - Rolled forward regularly (weekly)
Making Forecasting Work in Practice

• Forecasting relies heavily on those in spending units and tax departments closest to cash flows
  – Important that Spending Units and Tax Departments cooperate
  – Carrots and Sticks - reward good forecasting (greater delegated authority, easier virement, roll-over unused appropriations); penalties for poor forecasting.

• Daily monitoring
  – Monitor actual transactions across TSA; outturn for the day must be known no later than following morning
  – Analyse experience: e.g. do forecast errors imply timing changes within the month or changes in the level of activity?

• Personal contacts
  – Cash forecasters must have direct contact with opposite numbers in major spending units and tax departments

• Concentrate on major inflows and outflows

• Emphasis on history and experience
  – Not econometrics
Coordination with Debt Management

• Integration of (or close coordination between) cash and debt management functions ensures:
  – Debt issuance decisions are taken in the context of the seasonal nature of government’s cash flows
  – MoF has overview of whole market – important when taking decisions about the future balance of short- and long-term debt, including Treasury bills
  – Active management of the short-term cash position allows pattern of bond sales to be announced in advance [as capacity develops]
  – Potentially operational and risk management advantages

• Integration tending to become the norm in OECD and many other countries
  – Often with the formation of a debt office or similar
Operational Coordination

• Day-to-day coordination requirements include:
  – Linkage of issuance dates with redemption dates, to maximise the opportunities for investors to roll over into a new issue
  – Maturity dates chosen to avoid weeks, and especially days, of heavy cash outflow (e.g. salary payments): instead target days of cash inflow (the due date for tax payments)
  – Debt managers can mitigate the cash management problems that potentially arise when large bonds come to maturity
  – Also debt managers can correct repo market distortions or disruptions

• As interaction with the market develops, integration of debt and cash management functions becomes especially important.
  – In time, through active management of the short-term cash position, the combined function will be better placed to weaken the link between the timing of cash flows and bond issuance
    • Allows pattern of bond sales to be announced in advance
  – Ensures that the government presents a consistent face to the market
Who does What?

- Various national models – no “right” approach – but emerging good practice
- Spending units and tax departments – provide above the line data
- In MoF/Treasury/Debt Management Unit identify:
  - Who aggregates ‘above the line’ forecasts; and takes responsibility for the projection of the total
  - Who adds ‘below the line’ transactions – often the debt managers
  - Who takes decisions about investment of surpluses or issuance of TBills to manage cash flow - increasingly integrated with debt management unit
- Central bank – provides banking services and information flows
- Good practice guidance
  - Identify who is responsible for what – others should not second guess
  - Establish coordination structures where necessary – eg with central bank on respective money market operations
  - Single focus for final compilation and decision making
  - Often a regular [weekly] meetings of those responsible in MoF to review forecast updates, decide on investment / issuance policies, establish risk parameters
Responsibilities: a Summary

Ministry of Finance  Treasury Department  Debt Office

- Forecast Compiler (Above the Line)
- Forecast Compiler (Below the Line)
- Forecast Coordinator
- Front Office
- Spending and Revenue Departments
- Central Bank
- Financial Market

Forecasts / Updates

TSA

Transactions
Central Bank and MoF Coordination

• High-level policy understanding – may be in statute
  – Respective responsibilities – monetary and debt/cash management policy
  – Areas of cooperation, e.g. financial market development
• MoU to identify areas of operational policy and interaction where both institutions have an interest
  – Views of market on issuance programme
  – Cash management and liquidity operations; respective roles of CBBills and TBills
  – Avoiding risk of giving confusing or inconsistent signals to the market
• Coordination on various levels
  – Minister of Finance/Governor
  – Ministry and central bank officials
  – Standing committees
    • Debt Management – strategic input (not day-to-day)
    • Treasury Cash Flow
  – Technical working groups
• Service level agreement for services supplied by bank
  – as banker, fiscal agent, settlement agent, registrar, paying agent etc
Putting the forecast to work...

- Smoothing the net cash – target a range of fluctuations of the TSA balance
- Central bank no longer has sole responsibility for managing day to day fluctuations
  - Associated with – and supports – monetary policy independence of central bank
  - Major benefits – clarity in financial markets, eases monetary policy operations
  - But residual cash flow forecasts should be passed to central bank
- Distinguish between:
  - “Rough tuning” – issuing Treasury bills (or other short-term instruments) to a pattern designed to offset the impact on banking sector of net cash flows in and out of government, ie to smooth somewhat the changes in the TSA
  - “Fine tuning” – more active policies, wide on a wider range of instruments, to smooth the treasury’s balance more fully – technically more demanding
- Identify responsibility within MoF/Treasury/DMO
  - Increasingly given to DMO or similar, in consultation with others, because of the benefits of integration between debt and cash management
  - But different international models
# Cash Management Instruments

## Borrowing
- Treasury bill usually main instrument in moving towards more active cash management
  - TBill has different roles as instrument of
    - debt management
    - cash management
    - monetary policy
  - Emphasis on shorter-term (e.g. 1 month) bills for cash management
- Some EU countries issue commercial paper (CP)
- Repo usually used for fine tuning – but requires liquid market

## Lending
- (Reverse) repo preferred instrument if market sufficiently liquid
  - Secured and flexible
- Many countries use bank deposits
  - Lend at market rates – term or overnight
  - Competitive process (by tender if no transparent prices)
  - But must be collateralised – reduce credit risk
- Consider (remunerated) deposits with central bank if important to underpin monetary policy stance
Rough Tuning: Example

Rough Tuning with weekly issue of Treasury Bills only

Converts this profile to this profile

[Fine tuning makes it flat]
Financial Market Development

- Active cash management links to development of domestic financial market
- Repo (or similar secured instruments) contributes to money market activity
  - Makes treasury securities more attractive to banks for liquidity management
  - Spurs development of infrastructure required for interbank repo market
  - Also stimulates government bond market
  - Domestic government bonds normally the preferred collateral
- Benefits government debt and cash management
  - Reduces risks and consequences of debt auction failure
  - Providing opportunities to invest excess cash balances
- Developed money market important both as an objective in itself and through its links to other financial markets
- Emphasises importance of:
  - Debt and cash managers working closely together.
  - Interaction between cash management policies and monetary policy
Debt and Money Market Interaction

- **INTERBANK MARKET**
  - Clearing / settlement balances

- **OVERNIGHT MARKET**
  - Overnight funds
  - Loans / Deposits / Repos

- **TERM MONEY MARKET**
  - Maturities 2 days to 1 year
  - TBills, CP, term deposits & Repos

- **PRIMARY T-BILL MARKET**

- **PRIMARY GOVERNMENT BOND MARKET**

- **BOND MARKET**
  - Securities > 1 year to maturity

- **FOREIGN EXCHANGE MARKET**
  - Collateral

- **MONEY MARKETS**
  - Maturities <1 year

Monetary policy

Cash Management

Debt Management
Conclusion

• Substantial economic benefits from efficient – and active – cash management
  – Reduces debt interest costs
  – Contributes to other policies
• International consensus on main characteristics of efficient cash management – although some operational differences
• Note in particular:
  – Cash flow forecasts are the key underpinning
  – Use of TBills, collateralised deposits and repo and reverse repo to tune cash flows
  – Focus on money market development
  – Identify target cash balances – but include a buffer

Thank You!