

8. Treasury Core Functions

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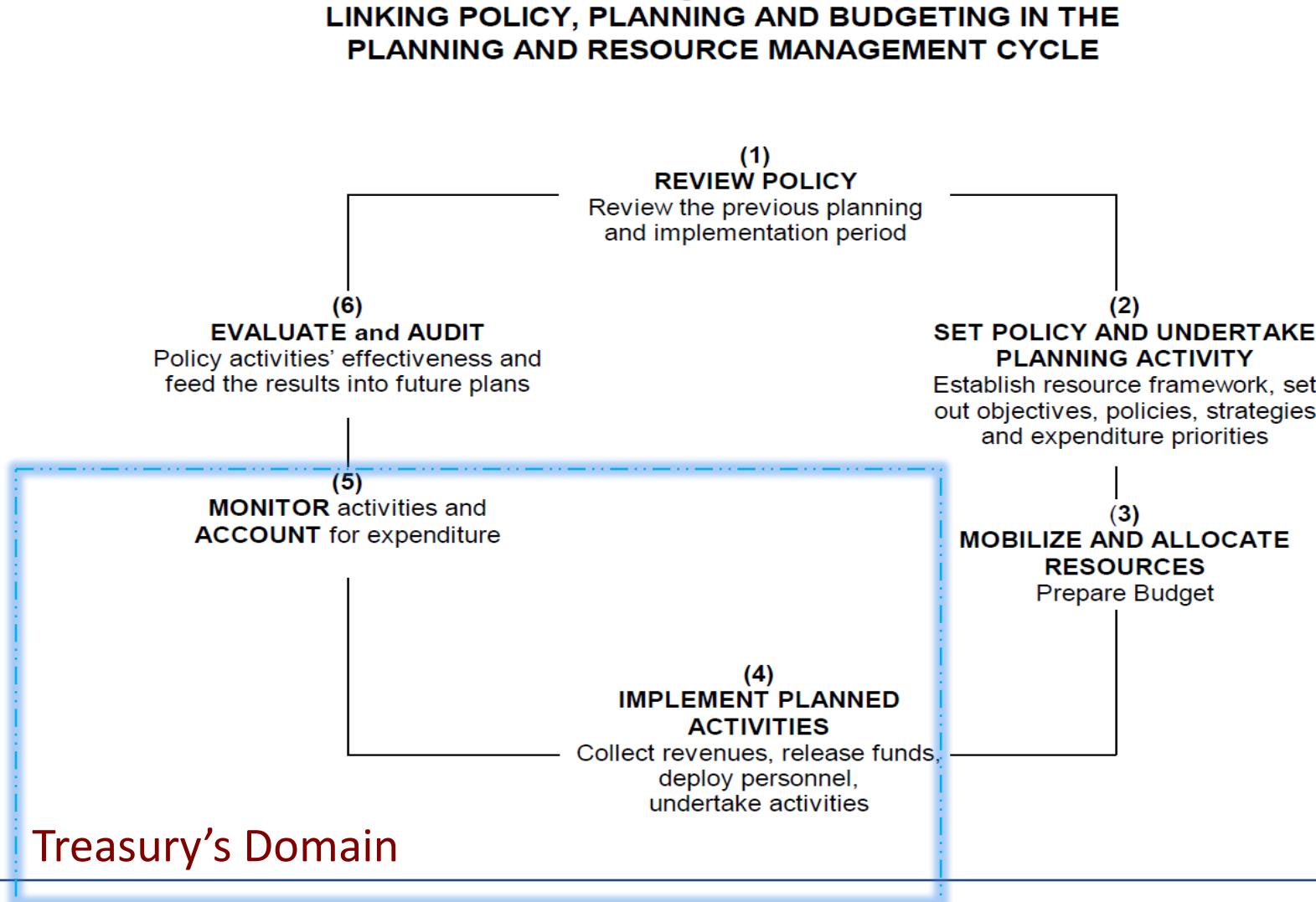
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Outline

- The role of the treasury
- Budget execution and expenditure control
- Cash management and link to debt management
- The Treasury Single Account
- Conclusions

The role and functions of the treasury

Treasury's role in the budget cycle



Traditional role of treasury

- Payment processing - cash and cheques
- Revenue collection and recording
- Maintaining public bank account(s) - the Treasury Single Account concept
- Some treasuries performed a pre-audit function (and still do in some countries) - *This may have been as simple as appropriation control or also involved review of whether payments represented the proper use of public money*

Evolving role of treasuries

- Automated accounting systems have made many of the traditional activities redundant
 - Electronic payments and collection of revenues – often real time
 - Replacement of the pre-audit function with system based controls in accounting systems
 - The traditional paymaster (processing) function largely no longer required
 - Much of the traditional role of the Treasury has either been devolved to MDAs or automated

Evolving role of treasuries (2)

- Provision of a modern IFMIS or central accounting system - *This brings with it the need for an effective CoA supplemented with clear accounting policies*
- Shift from passive to active cash management
- Decentralised controls is a feature of many modern Treasury systems
- An enhanced reporting and accounting function
- Greater emphasis on compliance with accounting standards and competent fiscal and statistical reporting

Core treasury functions

- Processing of payments
- Accounting for government transactions and preparing consolidated fiscal statements of general government
- Managing government payroll
- Applying internal control regulations, both on transactions and commitments
- Cash management and oversight of TSA
- Managing the government's e-Treasury system

And in some countries:

- Setting accounting standards
- Undertaking internal audit
- Conducting debt management operations
- Management of external grants and counterpart funds;
- Managing public procurement
- Monitoring government guarantees and other contingent liabilities
- Monitoring of financial operations of extra-budgetary funds, SOEs and sub-national governments.

Treasury functions

PFM Function	Allocation to			
	MoF	Treasury	Agency	Line Ministries
Macro-fiscal analysis and forecasting	x			
Budget preparation	x			x
Public investment planning and management	x			x
Debt management strategy	x	x	x	
Tax policy	x			
Revenue and Customs Administration	x		x	
Monitoring of budget execution	x	x		x
Consolidated fiscal reporting	x	x	x	
Cash forecasting and cash management, TSA	x	x		
Risk management and guarantees	x	x		
Regulation of banks and financial	x		x	

Treasury functions

PFM Function	Allocation to			
	MoF	Treasury	Agency	Line Ministries
Oversight of financial management, IT systems	x	x		
Accounting standards and policies	x	x	x	
Payment processing , internal control, commitment control		x	x	x
Internal audit	x		x	x
Public procurement policy	x		x	
Management of public assets, liabilities and PPPs	x	x		
Oversight of state-owned enterprises	x			
International financial relations	x			
Inter-governmental fiscal relations	x			

Note: The entries in this table represent the range of practices across developed and middle-income countries. Where multiple entries are shown in a row this may indicate that either (i) practices vary among countries, or (ii) responsibility for the function is shared across different entities.

Treasury models

- Two main models:
 - **Centralized** – all treasury functions, including payment and control functions, are centralized in the finance ministry (heavily in France, less so in Spain).
 - **Decentralized** – operational functions (typically payment processing and controls) are decentralized to line ministries but central policy and oversight functions are located either in the finance ministry (UK) or an arms'-length agency (Ireland, Scandinavian countries).
- Within each of these broad categories, there are substantial variations with differing control frameworks depending on:
 - legal and administrative framework;
 - size of the country and that of the government;
 - degree of centralization of government decision-making;
 - reliability of financial data and accounting/reporting systems; and
 - capacity at the center vs. line ministries.
- In practice, the distinction between “centralized” and “decentralized” systems is increasingly getting blurred with modern IT/TSA systems where controls and payment functions are automated.

Alternative organizational structures

- Departments/directorates of the finance ministry (e.g., Australia, France, UK)
- A separate ministry (e.g., Brazil, Indonesia, Turkey)
- An arms'-length agency under the MoF (e.g., Ireland, Scandinavian countries)

Centralization and organizational

Country	Centralized/Decentralized Model			Central Organization	
	Centralized	Decentralized	Hybrid	MoF Direct.	Agency
Bulgaria		x		x	
Denmark			x	x	
Estonia			x	x	x
France	x			x	
Finland		x			x
Hungary	x			x	
Ireland			x		x
Netherlands			x		x
Poland	x			x	
Serbia	x			x	
Sweden		x			x 13
United Kingdom		x		x	x

Budget execution and expenditure controls

Objectives of budget execution

1. Ensures economic and efficient implementation of budget decisions; optimize the use of available budget resources
2. Promotes integrity in managing public funds – especially legality, financial responsibility, transparency and accountability
3. prevent unauthorized spending and payment arrears; (ii) improve budget credibility; and (iii) promote financial integrity.
4. Assists in the identification of opportunities for more effective budget interventions and improved revenue and expenditure performance
5. Encourages the development of modern and professional financial management skills, systems and procedures in the public sector

Ten stages in budget execution (1)

- **Expenditure Authorization:** Provide all revenue and expenditure departments with appropriate authority to commence budgetary operations (“warrants”) according to agreed spending limits and plans
- **Apportionment/allocation of authorization** for specific periods and spending units. The purpose of apportionment is to prevent spending agencies from incurring obligations at a rate which would require the authorization of additional funds for the fiscal year in progress. This authority to spend is released to the spending units through the issue of warrants/allotments/*décret de répartition*.
- **Reservation.** Once the apportionment of expenditure authorization is made and the spending authority has been released, some countries’ PFM systems include a stage at which funds are reserved for a specific known expense but for which no contract has yet been issued.
- **Commitment:** Initiate expenditure decisions, including purchasing and payments operations and payroll disbursements
- **Verification:** Establish that correct goods and services have been received and that they have been correctly invoiced

Authorization for Public Expenditure

Limit on amount of expenditure. Government's expenditure must be within the amounts that the budget appropriations have established, with some flexibility allowed through *virements* and contingency reserve mechanisms. The nature of those expenditure limits depends on the accounting basis (cash, commitment, or accrual) used in the budget (see Section III).

- ***Limit on time horizon of expenditure.*** The expenditure must occur within the time limits applicable to the expenditure authorization. Most countries adopt annual budgets authorizing spending for one year; however, some countries authorize multi-year limits for certain types of expenditure (e.g., *autorisation d'engagement* for multi-year investment projects in France—see Box 3).
- ***Authorized purpose of the expenditure.*** The authority for expenditure is given for a specific predetermined purpose. The budget classification (which may be organized by programs, sub-programs, projects, economic categories, or line items) usually specifies the purpose for which the expenditure can be made.¹
- ***Administrative unit accountable for expenditure.*** A unit of government, typically a line ministry, department or agency, is assigned the responsibility to ensure that the appropriated resources are spent as intended within the authorized limits.

10 stages in budget execution (2)

- **Payment Authorization:** Initiate payment process through issuance of appropriate payment order / instructions; Execute payments, including management of all associated treasury and banking arrangements and documentation
- **Payment.** Once a payment order has been issued, payments are made through various instruments including checks, electronic fund transfer (EFT), and sometimes cash, in favor of a supplier or other recipient to discharge the liability.
- **Accounting:** Ensure details of every transaction are correctly accounted for (manually or electronically); prepare and distribute periodic financial reports including analysis on all budget execution operations
- **Financial Control / Audit:** Operate all pre- and post-expenditure controls and auditing procedures
- **End-of-Year Operations:** Close payment operations and budget accounts; carry over (unspent) funds, as appropriate, to the next budget year; meet all statutory requirements for presenting a final reconciliation of budget revenues, expenditures, borrowing and asset changes (“final accounts”).

TABLE 1. TYPES OF CONTROL, THEIR KEY FEATURES AND OBJECTIVES

Type of control	Objectives	Main features	Stage(s) at which applied
Appropriation control	Ensures that expenditure is covered in the budget and the proposed amount of expenditure includes all relevant expenses.	Budget cover (against the relevant appropriation) is checked after deducting all expenditures previously approved. The amount should be correctly calculated and there should be no hidden expenses.	Apportionment, reservation, commitment and payment order stages and virements during budget execution.
Aggregate cash control	Minimizes the cost of financing government programs by smoothing the gap between cash inflows and outflows. This control is a key element of the overall cash management system.	Release of spending authority (warrants, notification de crédit, etc.) is controlled against an annual cash plan that is updated on rolling basis. Payments by spending units are coordinated with the cash manager to ensure that sufficient cash is available in the TSA.	Apportionment and payment stages.
Commitment control	Ensures that expenditure commitments by spending units are fully in line with the expenditure limits and the released spending authority.	Spending units enter into commitments only against unencumbered spending authority and the cash plan covers the expected payment profiles of commitments.	Commitment stage.
Control of regularity	Verifies the legal and administrative compliance to ensure that the expenditure operation and related documents/contracts follow the procedure, prescribed in the law and/or financial regulations. /1	Legality of the operation is controlled by verifying that the officials approving a transaction have the authority to do so, and that the required supporting documents have been prepared in line with the law/regulations (for audit).	Mainly commitment, verification, payment order and payment stages, but also at other stages.
Accounting control	Ensures that transactions are properly recorded and accounted for to produce timely and reliable fiscal reports and financial statements.	Transactions are recognized, classified, and recorded in the books/ general ledger according to a country's accounting policies/standards and chart of accounts. They are also reconciled with bank statements.	Payment and verification (in case of accrual accounting) stages.

1/ All uses of public funds should be governed by financial regulations. These regulations, among other things, prescribe the establishment of responsibility for financial decisions, the segregation of duties to ensure appropriate checks and balances, and documentation procedures for maintaining a defined audit trail.

Authorization for Expenditure in France

Limit on amount of expenditure. Government's expenditure must be within the amounts that the budget appropriations have established, with some flexibility allowed through virements and contingency reserve mechanisms. The nature of those expenditure limits depends on the accounting basis (cash, commitment, or accrual) used in the budget.

Limit on time horizon of expenditure. The expenditure must occur within the time limits applicable to the expenditure authorization. Most countries adopt annual budgets authorizing spending for one year; however, some countries authorize multi-year limits for certain types of expenditure.

Authorized purpose of the expenditure. The authority for expenditure is given for a specific pre-defined purpose. The budget classification (which may be organized by programs, sub-programs, projects, economic categories, or line items) usually specifies the purpose for which the expenditure can be made.

Administrative unit accountable for expenditure. A unit of government, typically a line ministry, department or agency, is assigned the responsibility to ensure that the appropriated resources are spent as intended within the authorized limits.

Commitment and Payment Control

Implementing a budget legally and accurately requires effective controls on expenditure commitment and payment, including effective sanctions on unauthorized activity:

1. **Key Elements of Commitment Control:**

- Stated purpose and financial limit of approved budget lines
- Clear virement limits and procedures
- Commitment authorization procedures at line ministry level
- Clear and enforced procurement rules and procedures

2. **Key Elements of Payment Control:**

- Effective procedures for receiving and verifying goods and supplies as ordered, and updating records of stocks/inventory
- Clear and enforced procedures for issuing of payment orders
- Effective sanctions on incorrect payment procedures / decisions
- Education of regular suppliers in procedures and requirements of government purchasing/payment

Nature of expenditure limits

- **Cash-based budgeting** systems primarily enforce a limit on the accumulation and liquidation of cash obligations incurred during the budget year. A strict legal interpretation of a cash appropriation would mean that the appropriation is utilized when the government makes a cash payment. Therefore, entering into a commitment or incurring a liability in excess of the limit would not, in the absence of other controls, constitute a breach of law. Where countries have cash appropriations and accrual based financial statements, this usually gives rise to differences between budget execution reports and financial statements that require reconciliation.
- **Commitment-based budgeting** systems impose limits on both expenditure commitments and cash payments. Commitment limits may be multi-year in nature (usually for capital projects) and carried over from one financial year to the next, while cash expenditure limits are usually set for the budget year.
- **Accrual-based budgeting** systems enforce limits on the incurrence of liabilities, expenses or expenditure even when no immediate cash transactions are involved. In addition, they may impose limits on accumulation of cash obligations, multi-year commitments, and long-term obligations (such as pensions) and contingent liabilities (such as guarantees).

Dual appropriations

- The presence of dual appropriations (either commitment/cash or accrual/cash) can complicate control of budget execution by spending agencies.
 - Under commitment-based budgeting systems, there is a need to separately track and account for both expenditure commitments and payments, liquidate the latter against the former during the course of the budget year, and carry forward unused commitment appropriations between years.
 - Under a dual accrual and cash budgeting/appropriations framework, there is a need for each agency to make projections of both its anticipated cash requirements as well as incurrence of expenses and liabilities and accumulation/realization of long-term obligations and contingent liabilities.

Commitment-based limits in France

- As part of the comprehensive reform of its budget framework in 2001, France introduced multiannual commitment authorizations as a means of controlling expenditure obligations and associated payments for programs or projects that span more than one year (e.g., investment projects).
- For multiannual programs/projects, the approved budget includes both the multiannual commitment limits (*autorisations d'engagement* or AE) against which it also sets annual limits (*crédits de paiement* or CP) for cash payments during the year. As such, the focus of expenditure control at the commitment phase of budget execution has moved from an annual to a multiannual basis, i.e., the total cost of a legal commitment into which the government is entering into is fully recorded against the available multiannual commitment authorizations/AEs.
- As such, the AEs are consumed at the commitment stage of the expenditure or the legal act of signing a contract of the State with a third party.

Potential problems and solutions

Authorization. Enhance the coverage of the budget, improving the methodology of costing budget policies, introducing medium-term fiscal and budget frameworks, and ensuring timely approval of the budget.

Apportionment. Develop expenditure plans by line agencies and submission of these plans to the ministry of finance for decision on apportionment, and preparation of cash flow plans

Reservation/pre-commitment. Streamline the procurement process to reduce the time of withholding the reserved funds before they are committed, and ensuring that these reserved funds are in the TSA.

Commitment. Introduce a comprehensive commitment control system, including for multi-year commitments and standing commitments (e.g., salaries, utilities, subsidies, transfers, etc.).

Verification. Clarify responsibilities for verification of delivery of goods and/or services, ensuring documentary proof of delivery, and eliminating any delay between verification and payment orders.

Payment order. Ensure that payments are made within the due date to prevent accumulation of liabilities/arrears, extend the horizon of the cash plan which also reflects expected payments, and eliminate exceptional procedures for payment.

Payment. Modernize the mode of payment (e.g., through electronic fund transfer), streamlining check floats, introducing active cash management to ensure cash availability for payments, and bank reconciliation.

Managing Payment Arrears

- Payment arrears refer to outstanding financial obligations for which payment is considered “overdue”.
- Payment arrears may arise from:
 - an unrealistic budget (incl. overestimation of revenues),
 - poor cash management,
 - poor control of commitments, and
 - individual or systemic corruption.
- Payments arrears should always be a primary concern for the Treasury; they indicate that the government accounts are under ***substantial fiscal pressure*** and/or that ***budget execution and control procedures are failing***
- Accumulation of arrears detrimentally impacts on the government’s credibility with suppliers and on budget execution by distorting spending and/or borrowing plans
- Removing arrears – and preventing further accumulation – requires a sustained strategy from Treasury and the relevant departments

Treasury and Banking Arrangements

Advice often needed on key choices:

- **Treasury (Government) Accounting & Payments Systems:**
 - Manual, interfaced, or integrated IT systems – “GFMIS”
 - Centralized (MoF) vs. decentralized (line ministry-based) controls
 - **Banking Arrangements:**
 - Central Bank based government accounts vs. private sector banking providers
 - Treasury Single Account (TSA) vs. devolved (multi-account) systems
1. Treasury and banking arrangements for budget execution depend significantly on a country's commercial banking sector development, the availability and use of relevant technologies and the quality of ICT infrastructure
 2. Modernization of treasury and banking systems for PFM often involves increasingly decentralized controls, in tandem with a TSA
 3. However, there is no single, best prescription; good financial accounting and control can still be maintained in less developed environments

Financial Control and Audit

“Financial control” refers to the regulations and procedures that ensure the integrity of budget operations.

There are three broad systems (or mechanisms) of financial control:

- Pre-commitment and pre-payment controls (a particular emphasis in French PFM administrative systems)
- Post-payment checking and review - i.e., “internal audit” by specialized department and/or Treasury-managed agency, focusing on both transactions and systems
- Financial Inspection and/or External Audit – third party (independent) authority not answerable to Treasury/MoF

Financial Reporting and Accounting

- The “***accounting system***” provides the financial management “template” for recording/reporting all budget allocations, revenue and expenditure decisions/actions.
- ***Budget Classification*** and the ***Chart of Accounts*** define how this information will be recorded, presented, reported and analyzed.
- ***Financial regulations*** define and control all accounting and reporting operations; ensure accuracy, transparency, consistency and legitimacy
- **Accounting and reporting** practices vary widely; increasing convergence to ***international methods and standards*** (e.g. IPSAS and GFSM)
- **Accounting systems are not static**; constant development and improvement in the concepts, methods, standards and technologies

Cash management

The Objectives of Cash Management

Overriding objective:

Ensuring cash is available to meet commitments just in time

- 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” 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

OECD and many middle-income countries (especially in Europe and Latin-America) moving toward more active approach

Key Policy Objectives

Fiscal Objective

- ❖ Ensure cash is available to line ministries and spending agencies to meet budget obligations and commitments, when due
- ❖ Manage balances in government bank accounts effectively by:
 - (i) borrowing to cover expected cash shortfalls, and avoid “idle” balances
 - (ii) investing during periods of surplus, and
 - (iii) minimizing borrowing costs

Monetary Objective

- ❖ Neutralize the impact on the domestic banking sector of the government’s cash flows, ensuring that:
 - (i) there are no large and unexpected changes in liquidity in the banking system
 - (ii) overall monetary policy (incl. monetary growth and inflation targets etc.) is not undermined

Cash flow forecasting

- Efficient cash management requires ability to forecast daily cash flows across the TSA
 - To facilitate orderly achievement of budget targets; and to ensure that budgeted expenditure is smoothly financed
 - To devise the strategies for smoothing the cash flow profile
- A smoother cash flow means:
 - Lower average cash balances
 - Reduced borrowing costs
 - Interest on cash balances always less than interest on marginal borrowing
 - Less pressure on central banks' monetary policy operations

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, assets sales
 - Focus is domestic currency
- May need to identify FX 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)

Key Features of Forecasting Framework

- Framework must be comprehensive
- What matters is cash flow
 - Separation of permission to spend from actual spending
 - Tax revenue in TSA not in banking system
- Monitor actual changes in close to real time
 - Analyse divergences
- Forecasting relies heavily on those in spending units and tax departments closest to cash flows
- Concentrate on major inflows and outflows
- Emphasis is on history and experience
 - Not econometrics

Tool and Techniques - 1

- **At start of year, forecasts consistent with annual budget**
 - But need unbiased estimates – what is going to happen, not what “should” happen; do not constrain budget as year progresses
 - May help to separate forecasting from budget execution processes
- **Revenue forecasts from the tax departments**
 - Monthly totals of tax receipts, by tax for xx months ahead
 - Daily [weekly] tax receipts for next month, 1-3 months if possible
 - Tax usually more variable and more unpredictable
- **Expenditure forecasts from spending agencies or units**
 - Expected expenditure (cash not commitments) by day/week for xx months ahead
 - Focus on largest spending units [80/20 rule]
 - Require pre-notification of major expenditures
 - Many countries have an end-year surge in expenditure – avoid rules preventing end-year carryover of unused appropriations

Tool and Techniques - 2

➤ Identify seasonality

- Monthly salary payments; regular social welfare or pension payments
- Some other expenditures – e.g. agricultural support – may be seasonal
- Tax payment days (gear tax payment days to days of expenditure outflow)

➤ Identify major individual flows – many are precise and predictable

- Debt issuance and redemption; interest on government debt (avoid redemptions on days of heavy expenditure)
- Transfers to lower levels of government
- Receipts from major asset sales
- Less predictable but important to identify:
 - Payments on major public projects
 - Tax payments by the largest companies

➤ Particular problems with donor grants and disbursements

- Highly uncertain, difficult to forecast, depends on project progress
- May be possible to assume that project spending and project-related funding net to zero – but does not cope with lumpy flows
- Inflows may also go to separate accounts not TSA

Making forecasting work in practice

- Important that spending units and tax departments cooperate
 - Insist on profiles and forecasts, and reports on why variations to forecasts occurred
 - Good administrative practice should be enough; but if necessary legislate
- Carrots and Sticks
 - Reward good forecasting: greater delegated authority, easier virement, roll-over unused appropriations (financial penalties for poor forecasting)
 - Ensure there is no incentive to hoard cash
- 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
 - Avoid requests / information going up hierarchy, across and down
 - Cash forecasters in treasury must have direct contact with opposite numbers in major spending units and tax departments

Managing forecast data

- **Cash flow forecasting usually requires development of a single central database independent of the IFMIS.** Reflects different purposes:
 - Cash flow data are needed to support immediate operational decisions
 - They do not have to be of “accounting” quality or precision
 - Not all accounting changes represent cashflows
- **Cash managers need a database that is:**
 - Flexible and under their control
 - Allows preparation of scenarios, what-ifs etc
 - Able to hold outturn information for analytical purposes
- **Many countries use Excel, at least initially**

Who does What?

- Various national models – no “right” approach – but emerging best practice
- Spending units and tax departments – provide above the line data
- In MoF/Treasury/Debt Management Office distinguish between:
 - Who aggregates ‘above the line’ forecasts; and takes responsibility for the projection of the total
 - Who adds ‘below the line’ transactions – will often be debt managers
 - Who is responsible for taking decisions about investment of surpluses or issuance of T-Bills to manage cash flow
- Central bank – provides banking services and information flows
 - May provide details of actual flows or disbursements
- Good practice guidance
 - Identify who is responsible for what – others should not second guess
 - Single focus for final compilation and decision making – **one cash manager**
 - Regular [weekly] meetings of those responsible in MoF to review forecast updates, decide on investment / issuance policies, establish risk parameters

Putting the forecast to work

➤ Smoothing the net cash - 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, 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

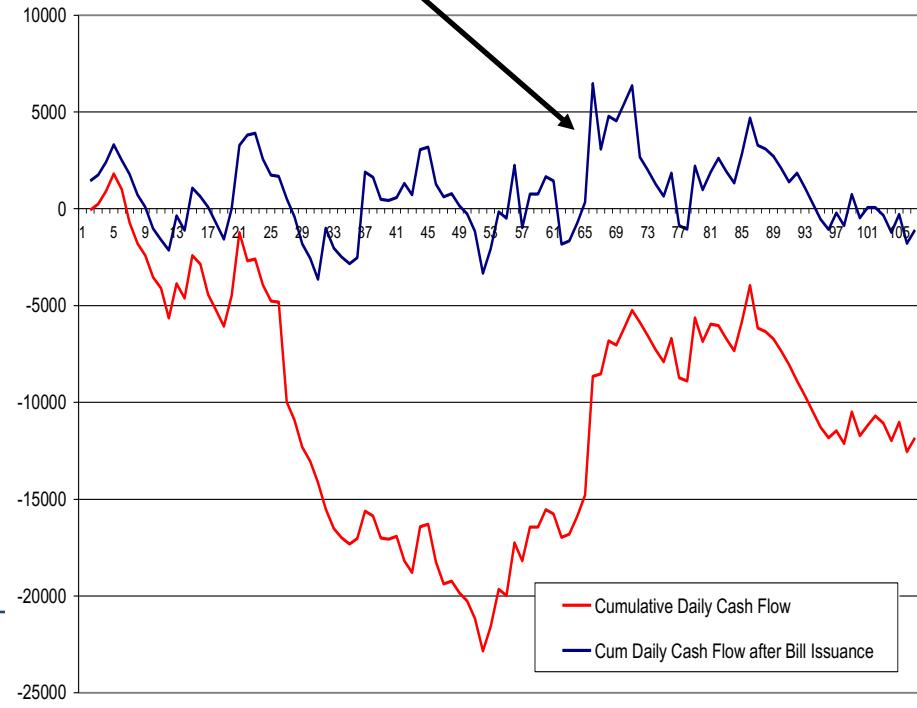
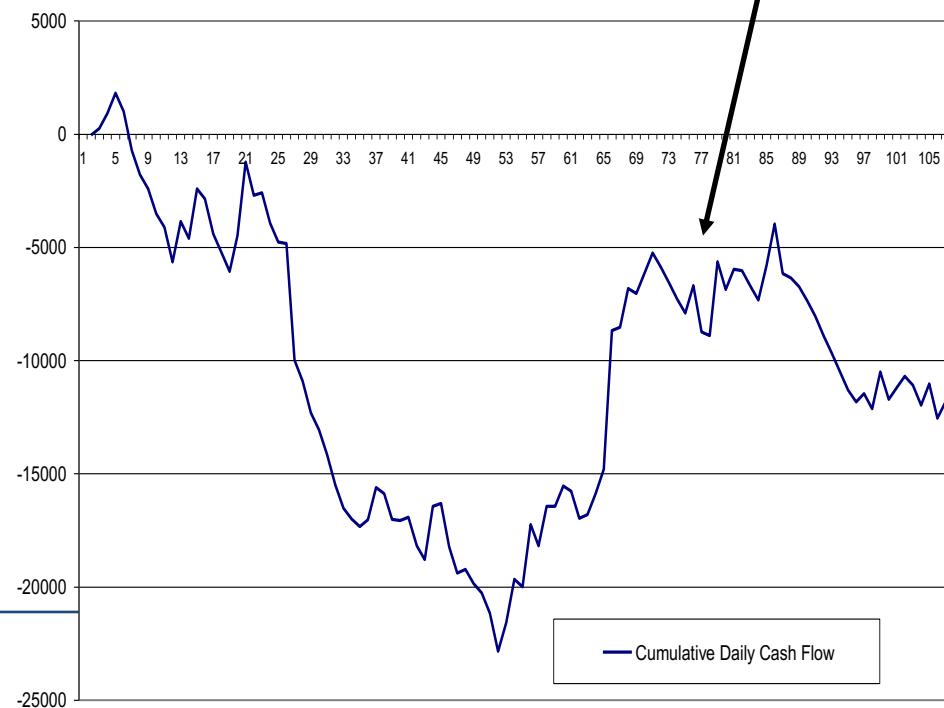
Rough Tuning: Example

Rough Tuning with weekly issue of Treasury Bills only

Converts **this** profile to **this** profile

[Fine tuning makes it flat]

Putting the forecast to work



Management of Cash Balances

➤ Separately identify

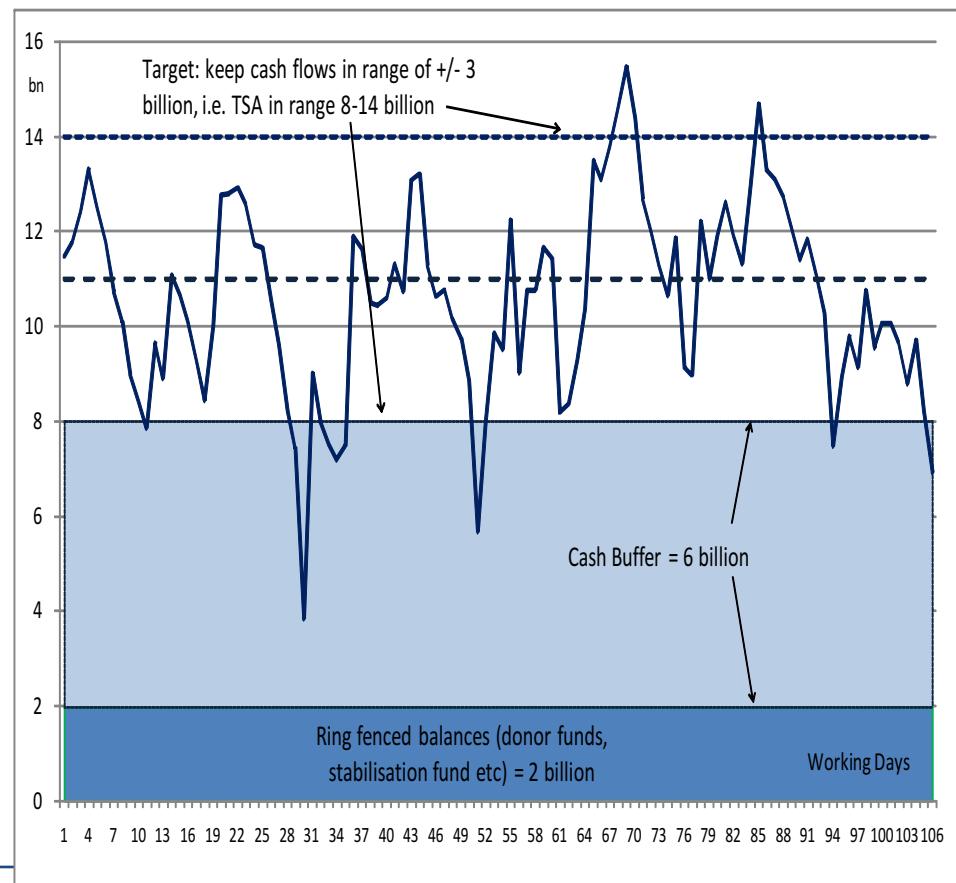
- Management of day to day cash, including the cash buffer
- Management of a structural surplus (net of any debt repayment)

➤ 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

➤ Governments need access to liquidity

- Implies some cash balances
- How do you decide the minimum?



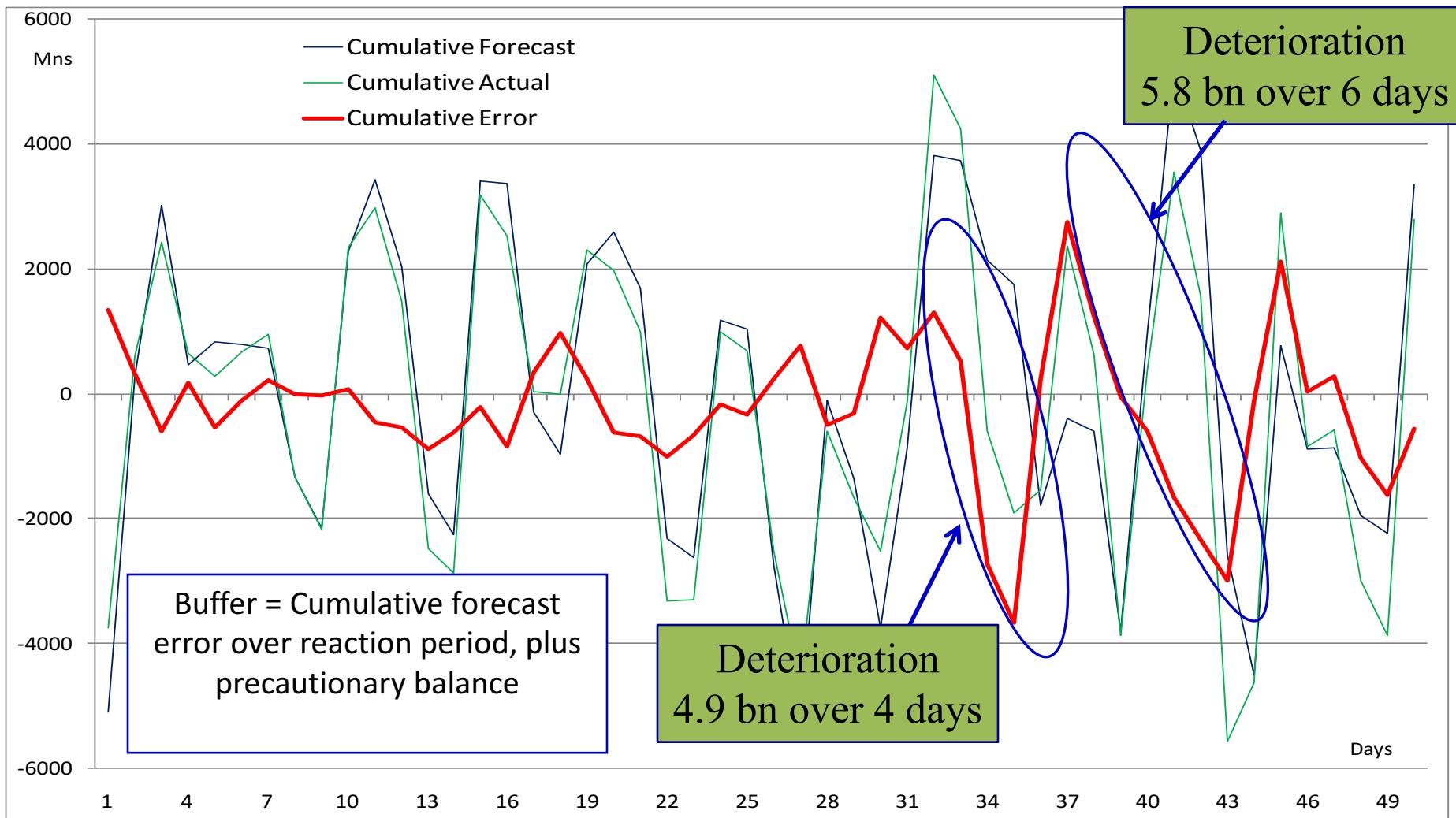
What Determines the Cash Buffer?

1. The volatility of daily cash flows
2. The ability to forecast those cash flows
 - The standard deviation of errors in the forecast will [should] be much less than standard deviation of outturn
 - Key area for policy focus – treasurers have less leverage over other determinants
3. The scope to manage unanticipated fluctuations and the timescale over which they can be managed
 - How soon can additional T-Bills be issued?
4. Safety nets
 - Emergency credit facilities or cash reserves
 - End of day borrowing from commercial banks
 - [Short-term borrowing from central bank]

Cash Buffers in Practice

- Several northern European countries operate with cash balances in the central bank < 0.1% annual central government expenditure
 - But they have liquid money markets, sophisticated active cash management. Some plan to be long of cash and on-lend only when position is secure
 - Drying up of liquidity led some to be more cautious
- Some other approaches – the importance of signalling prudence:
 - Target balance calculated as a safety reserve in event of adverse market conditions – depends on expected time to return to normality
 - Maintaining balances at least as great as the debt redemptions due in the following month, implicitly allowing for a failed auction
 - To guarantee budget execution or debt service for [X] months
- Recommended buffer in absence of developed cash management:
 - Cumulative forecast errors over policy reaction period coupled with a cautionary balance for market disruption or auction failure
 - But the buffer has an opportunity cost – there is a trade-off with caution

Cash Flow Buffer: Illustration



The financial crisis: some lessons?

- The Cash Management Reform Program
 - More focus on liquidity risks => **higher cash buffer!**
 - Importance of improved cash flow forecasting
- Strong case for close coordination (or integration) of cash and debt management
 - Money market is an additional short-notice source of funds – huge increase in T-Bill issuance in many countries
 - Both debt managers and cash managers need a liquid money market
- Develop mechanisms to cooperate with central bank
 - Essential when banking sector under stress
 - Mutual interest in money market development – develop repo market
 - Cooperation does not jeopardise policy independence
- Develop a “financing continuity plan”
 - Greater caution in respect of cash, some front-end loading of auctions; procedures for short-notice issuance/[tapping] of T-Bills, TBonds
 - Develop cash management safety nets – alongside the cash buffer

What is Reducing the Effectiveness of Treasury and Cash Management?

- Poor CoA Design
- Too many bank accounts
- Lack of consolidation of budget execution processes
- Cash advances/cash floats
- Prepayments
- Payments by cheque in lieu of bank transfers

What is Reducing the Effectiveness of Treasury and Cash Management?

- No commitment control over capital and recurrent spending
- Capital cashflows not provided
- Revenues not brought to account each day
- Spending decisions need to be anchored in the original budget
- New spending requests - *Remember, approval of something new may mean you cannot pay existing commitments – medicines, salaries, etc.*

Conclusions

- Growing international appreciation of the importance of active cash management
 - Reduces debt interest costs
 - Contributes to other policies
- Underpinned by cash flow forecasts
 - Anticipate cash flow needs of government
 - Dependent on centralising information from many sources
- Use of T-Bills, collateralised deposits and other short term instruments (repo and reverse repo) to tune cash flows
 - Identify key responsibilities
 - Focus on money market development
- Identify target cash balances – but include a buffer

Treasury Single Account (TSA)

Definitions and Justification

A Treasury Single Account (TSA) is a

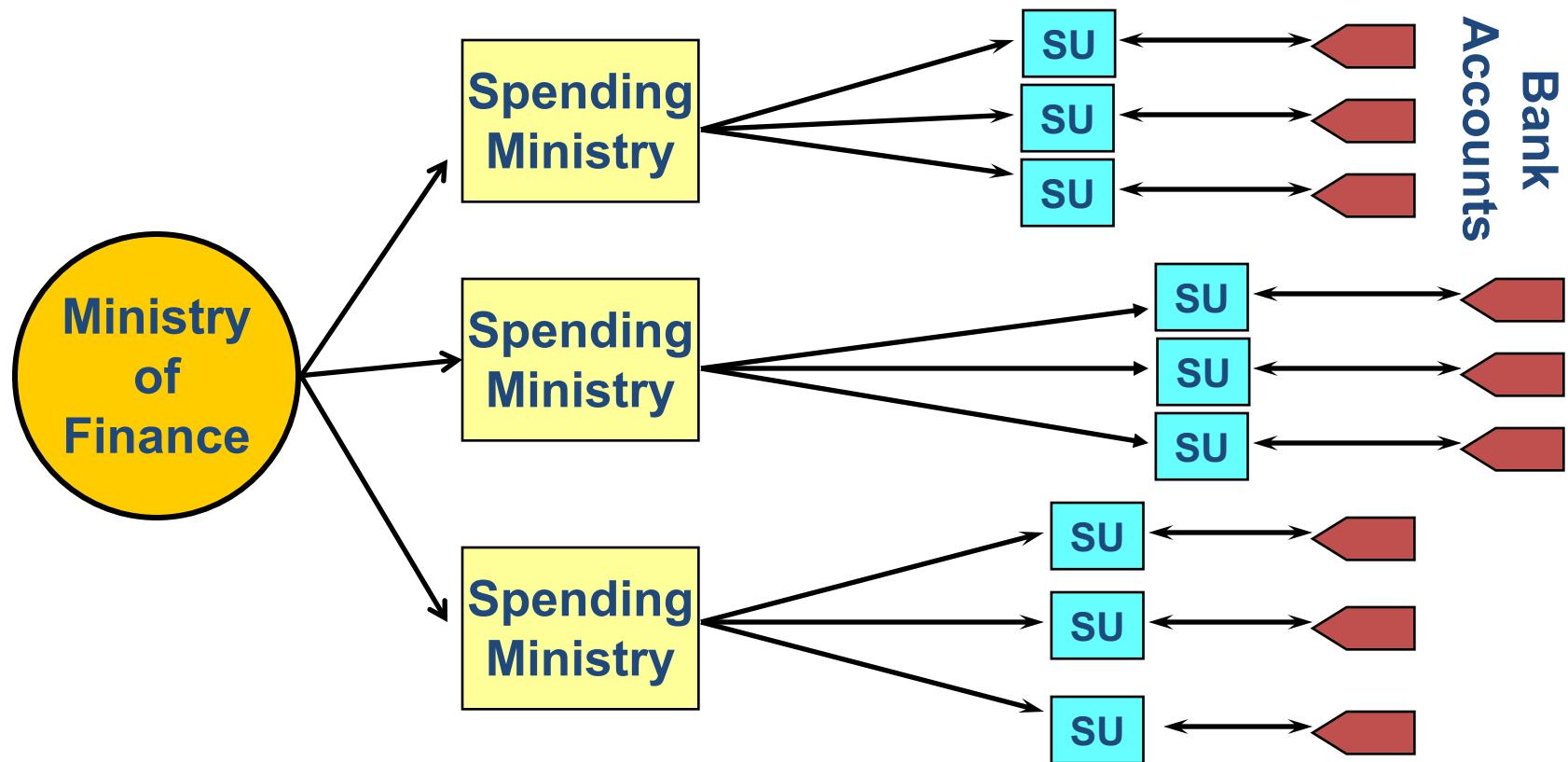
“Unified structure of government bank accounts” that involves a top (or “parent”) account, usually at the central bank, through which the government transacts all its receipts and payments and gets a consolidated view of its cash position at the end of each day.”

Source: Pattanayak and Fainboim, 2011, *IMF Technical Notes and Manuals*

Typical Banking Arrangement

Multiplicity of Bank Accounts

(No Cash Consolidation)



SU = Spending Units

Common Problems in Banking Arrangements

1. Multiple bank accounts: **partial or no cash consolidation**
2. **Idle cash** on bank accounts not remunerated while accounts in deficit attract interest (additional borrowing costs)
3. Low collection efficiency – **floats** range from a few days to months
4. No formal specification of **service expectations**
5. Difficult to establish “**full cash position**” of the government, hence:
 - impossible to prioritize and control expenditure disbursements.
 - bank reconciliation responsibilities dispersed and often neglected.
 - reliance on banking rather than accounting systems for budget performance information.
6. **A complex structure of Treasury bank accounts in the central bank and commercial banks:** different accounts for different types of expenditures and revenues, few automated linkages

TSA: Summary of Benefits

1. Ensures **complete, real-time information** on government cash resources (with support of a GFMIS)
 - enables efficient cash management
 - helps preparation of accurate and reliable cash flow forecasts
 - optimizes the cost of government operations: includes minimizing the volume and cost of government borrowing and lowering liquidity reserve needs
 - increases the return on excess cash
2. Facilitates **efficient collection and payment** mechanisms
3. Improves **operational and appropriation control** during budget execution
4. Enhances efficiency and timeliness of **bank reconciliation**
5. Facilitates timely and more complete **accounting statements/reports, including sources and uses of cash**

Guiding Principles

1. Unified structure

- “Complete fungibility” of all cash resources (in real time, if electronic banking is in place)

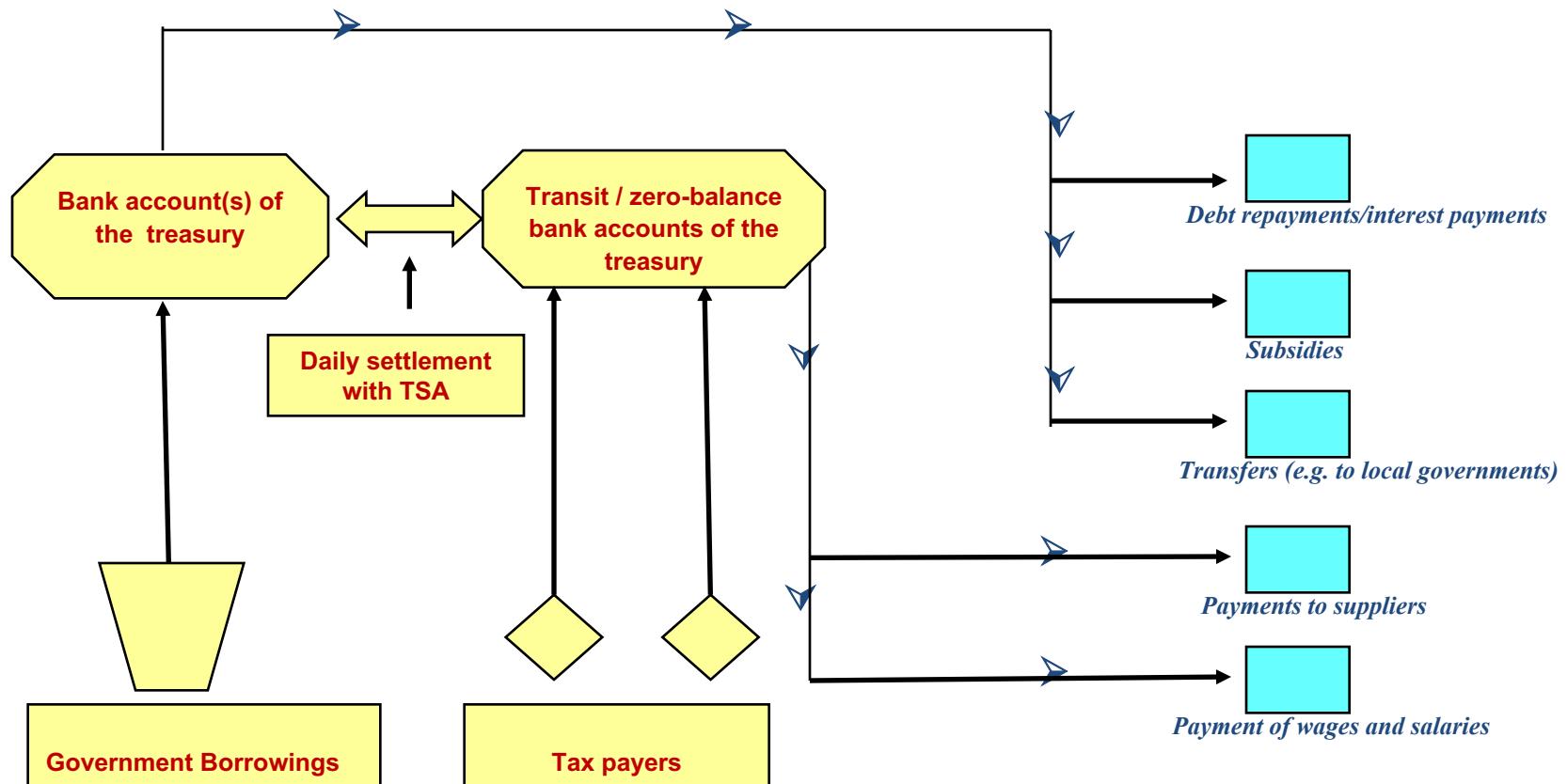
2. Oversight by the Treasury

- No other government agency operates bank accounts outside treasury control/supervision
- Cash balance in the TSA is maintained at a level sufficient to meet daily operational requirements (*linkages to debt management*)

3. Comprehensive coverage

- Full consolidation of cash balances of all government entities (budgetary and extra-budgetary)

Banking Arrangements under a TSA



TSA Strategy: Focus on Cash Consolidation

1. Define the scope of the TSA in a policy document
2. Develop a strategy with prioritized actions:
 - first focus on potentially risky accounts with significant balances
 - potentially target commercial bank accounts of spending agencies, extra-budgetary funds, and donor projects in that order
3. Distinguish between the authority to spend and physical location of cash:
 - develop an accounting system that clearly and accurately identifies cash balances of each entity;
 - develop a functionality in GFMIS to maintain ledger sub-accounts with corresponding credit limits;
 - establish legal authority to pool cash (could infringe on fiscal autonomy of sub-national governments)
4. Assure spending agencies that cash will be available when needed:
 - develop superior cash forecasting and management capabilities to meet cash needs of all entities

TSA Structure: Options

1. A **centralized** bank account structure:

- typically a single bank account (possibly with sub-accounts) generally maintained at the central bank
- usually managed within well developed accounting system and a GFMIS
- typically RTGS-based payments (often with treasury as a direct participant)

2. A **distributed** bank account structure:

- several independent bank accounts (generally ZBAs opened with commercial banks) operated by line agencies/spending units for their own transactions, with positive and negative balances in these accounts netted into the TSA main account

3. A **combination** of centralized and distributed features

4. At the **central bank**:

- safe haven for government cash deposits, minimizes credit risk exposure
- facilitates the central bank's monetary policy operations
- can facilitate cost-effective banking arrangements and speedy settlements
- often a legal requirement

5. At **commercial banks** – much less common (Peru, Argentina)

Budget Authority / Transactions Processing

1. The decision as to whether – and to what extent - budget authority should be delegated to line ministries is independent of the TSA structure.
2. A TSA can operate with both centralized and decentralized transaction processing and accounting control systems.

TSA structure	Transaction Processing System	
	Centralized	Decentralized
Centralized	France Brazil	India
Distributed	United Kingdom	Sweden

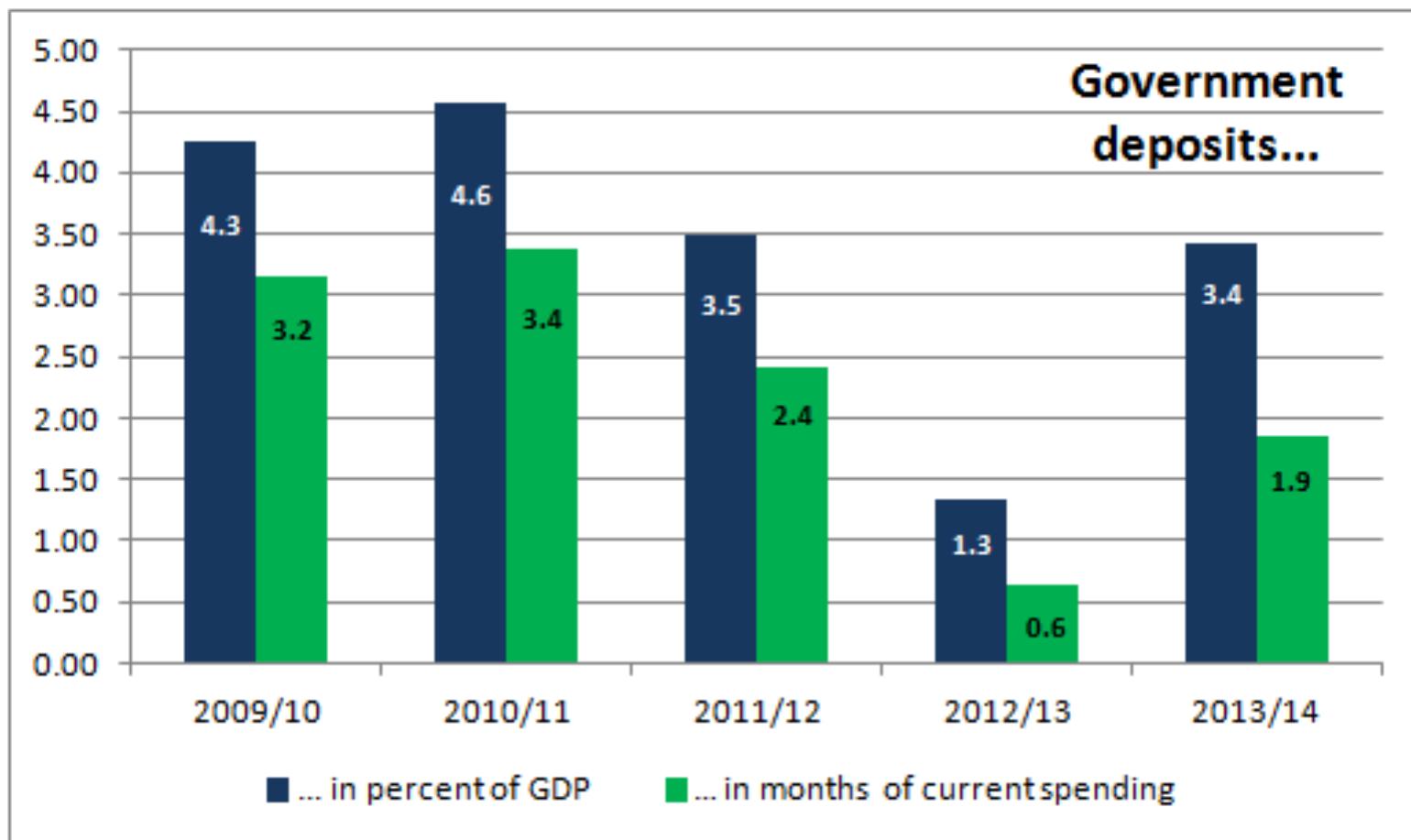
Advanced Organizational Features

1. An interbank settlement/clearing system
2. A real time gross settlement system (RTGS) at the central bank for high value transactions
3. Major commercial banks and Treasury connected to RTGS
4. Development of a small payments clearing system
5. Electronic transaction processing and payment system (e.g., GFMIS) with interface/connectivity to the banks
6. A Treasury general ledger system to keep track of cash flows through the TSA
7. Framework agreements between Treasury (MoF) and banks
 - Standardized services and transparent fees
 - Penalties for delays and under-performance
 - Monitoring accounts / balances
8. An MoU between the MoF/Treasury and the Central Bank

Multiple Bank Accounts: An Example

	Accounts in Commercial Banks	Accounts in the Central Bank	Total
Central Government			
Government departments and agencies	8,003		8,003
Primary Schools	34,400		34,400
Treasury	245	78	323
Off-budget accounts	367		367
Total Central Government	42,939	78	43,093
Local government units	48,745		48,745
Government-owned enterprises	3,800		3,800

Multiple Bank Accounts – Idle Cash...



TSA Coverage

- Budgetary central government
 - Often donor funded projects get excluded
- Central government, including:
 - Autonomous government entities
 - Extra-budgetary funds
 - Social-security funds and other trust funds (Brazil)
 - Distinguish between transfer programs and pension funds
- Central and sub-national governments
 - Either under a single TSA (France) or separate TSAs (China)
- Public corporations (generally not included)
 - Should include those acting as government agencies.

Institutional Challenges for Treasury Reforms (the seven Cs)

- **Consistency** with international standards
- **Compliance** by spending agencies and units
- **Coverage** of the budget and reporting framework
- **Consolidation** of cash
- **Complexity** – ensure the basics are in place before moving to implement more complex reforms
- **Cost** – before embarking on any reform a cost/benefit analysis should be undertaken
- **Capacity** – developing capacity to implement the new reforms is critical

Selected references

- Pattanyak, S., *Expenditure Control: Key Features, Stages, and Actors*, IMF Technical Notes and Manuals, May 2016, available at: <http://blog-pfm.imf.org>
- Pattanyak, S. and I. Fainboim, *Treasury Single Account: An Essential Tool for Government*, IMF Technical Notes and Manuals, August 2011, available at: www.imf.org/external/pubs/ft/wp/2010/wp10143.pdf
- Saxena, Sandeep, and Sami Yläoutinen, *Managing Budgetary Virements*, IMF Technical Notes and Manuals, May 2016, available at: <http://blog-pfm.imf.org>
- Williams M., on “*The Treasury Function and the Treasury Single Account*” in Allen R., Hemming R., and B. Potter, International Handbook on Expenditure Management, Chapter 16, Macmillan. 2013.