Cash and Debt Management Coordination

Based on Workshop Presentation, February 2019

Mike Williams
mike.williams@mj-w.net

Outline

- The Principles of Debt Management
- Debt Management Strategy and its Execution
- Debt & Cash Managers: Functions & Objectives
- Debt & Cash Managers: Coordination Mechanisms

What is Sovereign Debt Management?

"The process of establishing and executing a strategy for managing the government's debt* in order to:

– Raise the required amount of funding at the lowest possible cost over the medium to long term consistent with a prudent degree of risk

– Meet related goals – e.g. developing an efficient market for government securities."

IMF/World Bank, Guidelines for Public Debt Management, (revised April 2014)

"Debt" includes bills, bonds (domestic and external), loans and credits (whether from governments, international financial institutions, central bank or commercial banks, internal or external) and any outstanding arrears [beware of "net" debt]

Debt Management is Important!

- Successive crises in EMCs characterised by vulnerabilities arising from poor debt structures; and crystallisation of contingent liabilities

Causes

- Size and growth of indebtedness (Debt/GDP)
- Poorly structured portfolio - maturity, currency or interest rate composition (excessive focus on short-term or FX debt)
- Large and unfunded contingent liabilities (East Asian crisis)
- Exposure to economic shocks (lack of liquidity)

Effects

- Fiscal problems – both short- and long-term
- Financial and economic vulnerability
- Damage to creditworthiness
- Damage to private sector development
- Poor inter-generational equity *

* "Blessed are the young for they shall inherit the national debt."

Herbert Hoover (US President 1929-33)

Both Size and Composition Matter

- Over 50% of sovereign debt defaults in recent decades even when Debt/GDP is below 60% (arbitrary, but the target threshold adopted by Eurozone & other countries)

Debt Sustainability	Debt Strategy
• Ability to continue servicing debt without an unrealistically large macro-economic adjustment • Feeds into fiscal policy decisions, especially the primary balance	• Focuses on the composition of the debt portfolio, rather than its overall size. • Objective is improved resilience to economic shocks

- Important in practice to share data and analysis

The 6 Building Blocks of Sound Practice

1. Debt Management Objectives
Objectives, priorities and Coordination with Monetary and Fiscal Policy

2. Transparency and Accountability
Clarity of roles; open process; publication of information; integrity

3. Institutional Framework
Governance, legal and decision-making framework, organisation and management of operations

4. Debt Management Strategy
Monitoring and evaluating risks

5. Risk Management Framework
Trading off costs and risks; taking account of contingent liabilities

6. Development and Maintenance of an Efficient Market for Government Securities

Guidelines for Public Debt Management
IMF and World Bank, 2001, updated 2014

Governance in Debt Management: the Main Components

Structures that shape and direct operations	Policy process	Management framework	Accountability
• Broad legal apparatus (statutory legislation, ministerial decrees, etc) that defines aims, authorities, and accountabilities • The role of Parliament or National Assembly	• How decisions are made – both at a high level and day to day • Who makes them and who is consulted	• The formulation and implementation of strategy, business planning, operational procedures, risk management, capacity building, and internal reporting responsibilities	• Audit • Wider reporting framework

Governance: the Framework

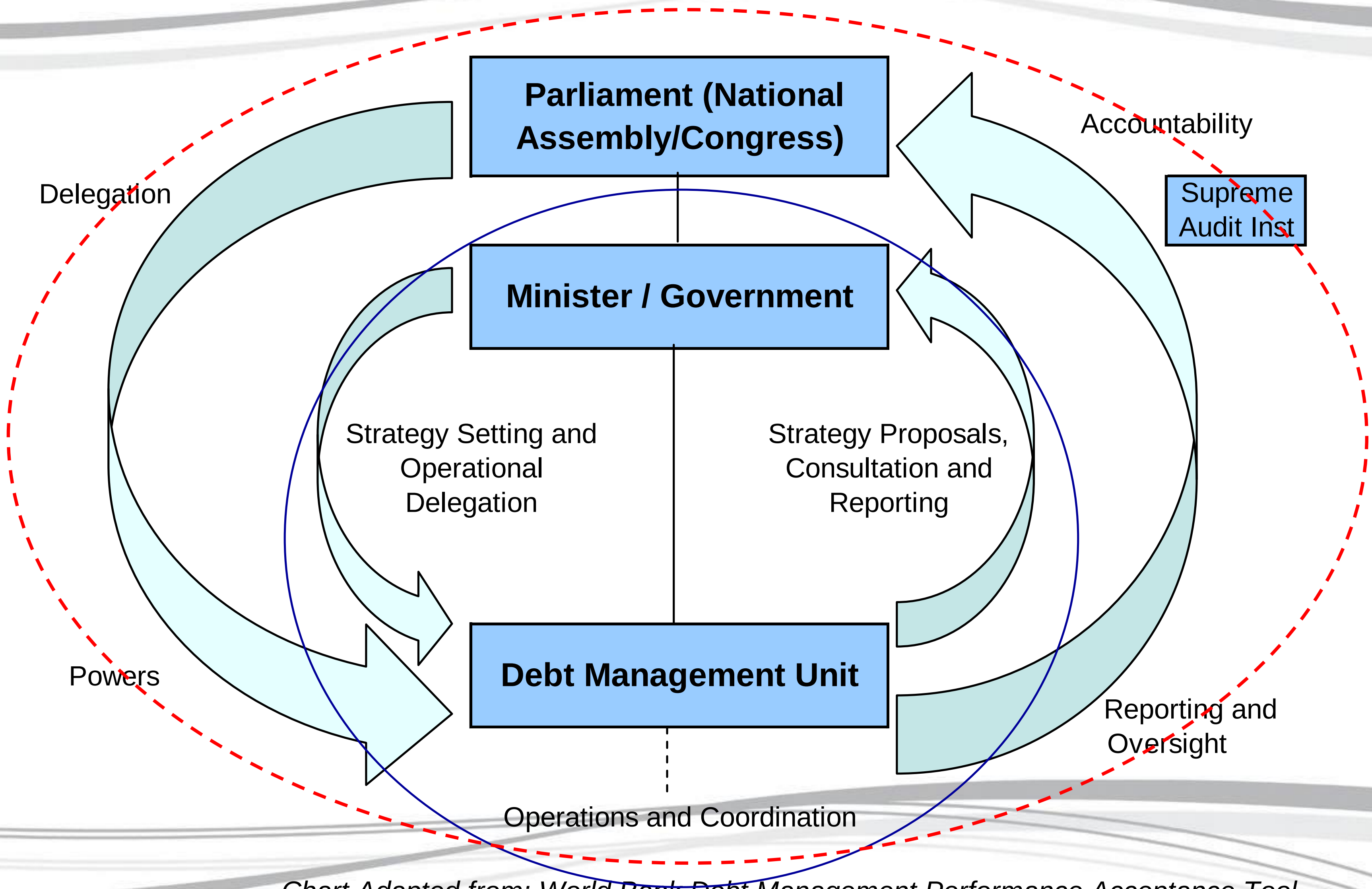


Chart Adapted from: World Bank Debt Management Performance Acceptance Tool

Different Organisational Models

The typical traditional MoF - Treasury may be an "agency" with responsibilities for payments, accounts and cash management. Usually the Debt Directorate will issue bonds and bills (Treasury in Indonesia); but the Treasury may invest surplus cash

Ministry of Finance

Treasury | **Debt Directorate** | Other

Some countries have amalgamated the Treasury and Debt Directorate, although they do not all work in an integrated way

Ministry of Finance

Debt and Treasury Directorate | Other

The "European Model". A separate Debt Management Office with cash management responsibilities - which may be an "agency"

Ministry of Finance

Treasury | **Debt (and Cash) Office** | Other

Outline

- The Principles of Debt Management
- Debt Management Strategy and its Execution
- Debt & Cash Managers: Functions and Objectives
- Debt & Cash Managers: Coordination Mechanisms

Risk Management

Risk management is at the heart of debt management

- Risk arises because future borrowing costs are uncertain
  - Market risk – changes in interest rates, exchange rates, prices
  - Rollover or refinancing risk; also liquidity risk

Risk is not symmetrical

- Sound debt management is about robustness and resilience
- Weaknesses exacerbate economic crises

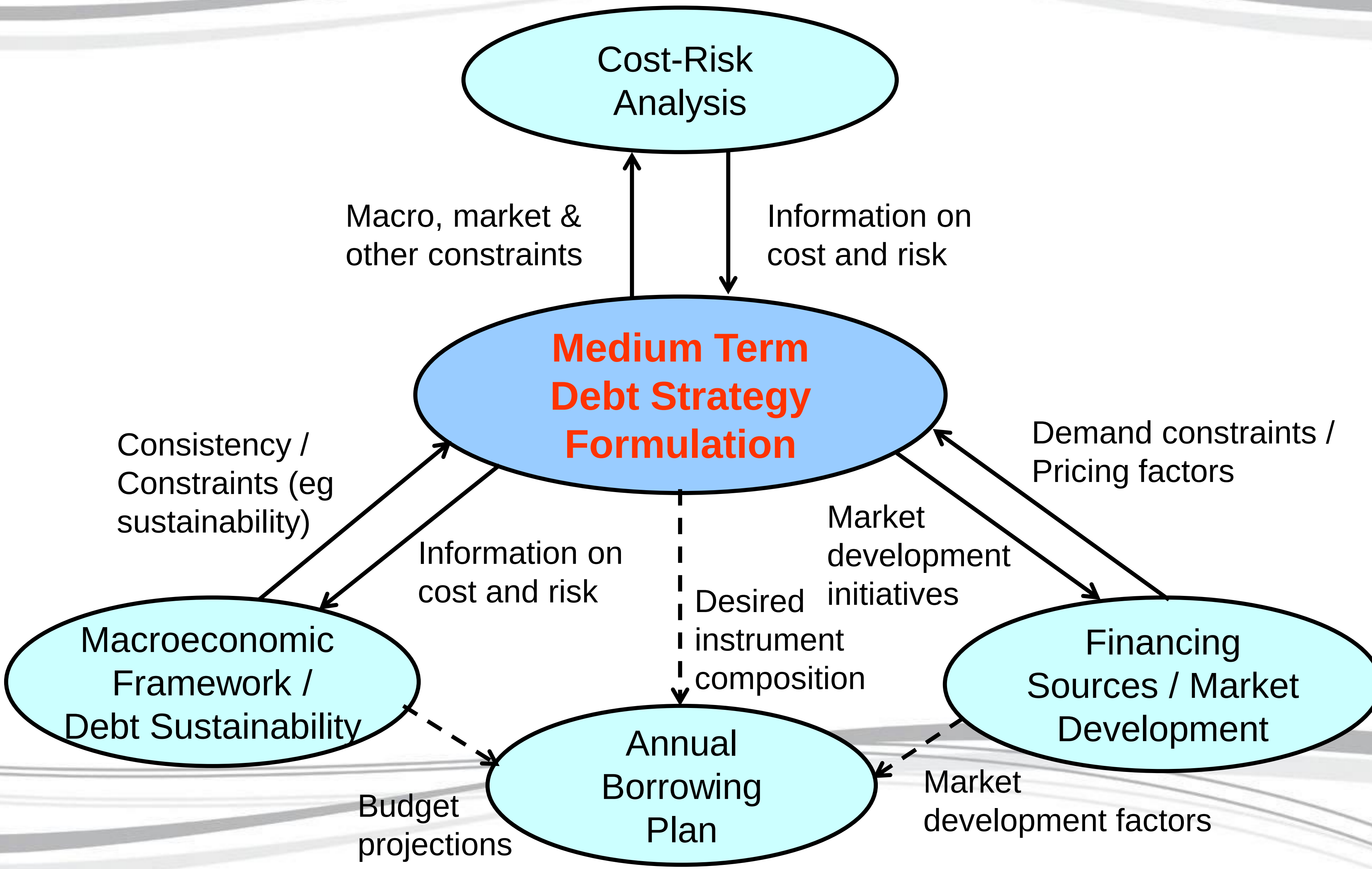
Debt managers have the task

- To design the strategy to manage market risk in debt portfolio
- Their focus is on the composition of debt - to design systems and controls to implement the strategy and manage other risks (credit and operational)

The Debt Management Strategy….

- A DMS is about how to develop the composition of the debt portfolio over time
  - In a way that manages risk and the trade-off between cost and risk
- The Medium-Term Debt Management Strategy (MTDS) makes operational the agreed high-level debt management objectives
  - Ensuring financing needs are met
  - Expressing cost-risk preferences
  - Implies targets for key risk indicators (foreign/domestic currency, long/short-term debt, fixed/floating rates etc)
- A formal strategy is important
  - Clear framework for making informed choices
  - Ensures consistency in borrowing strategies
  - Improves coordination with fiscal and monetary policy
  - Helps to identify constraints (eg market development)

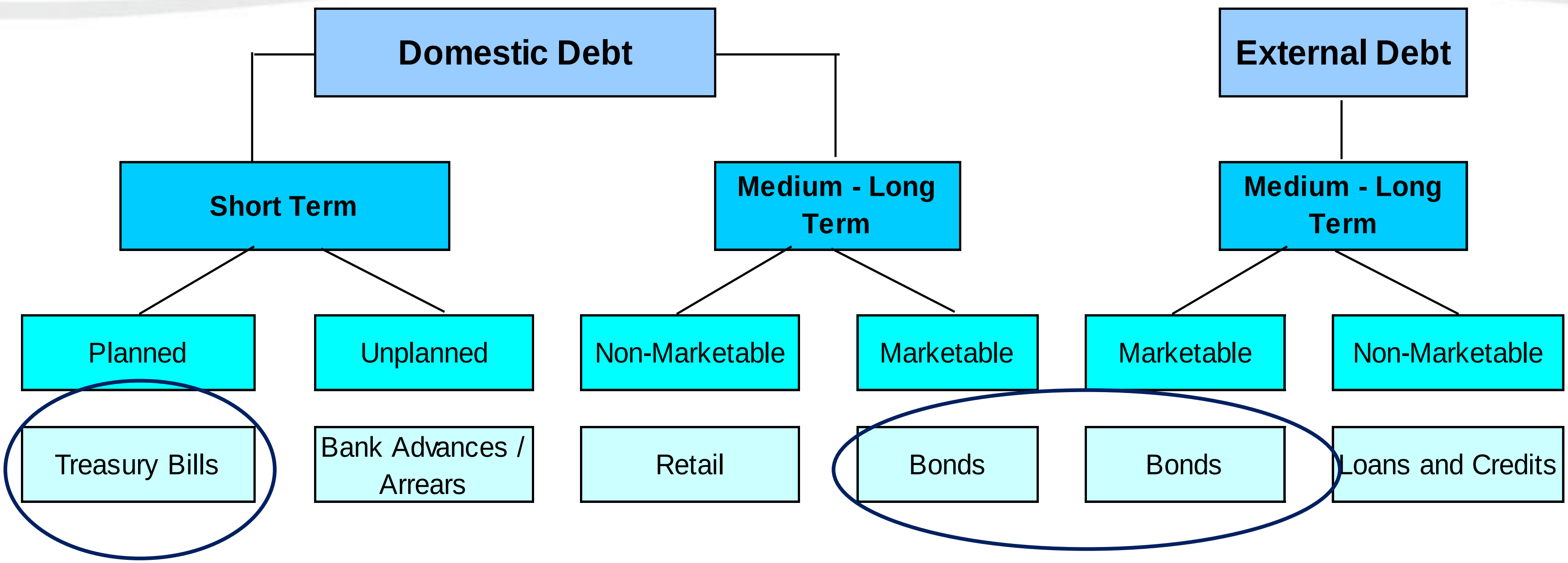
MDTS: Key Interlinkages



Annual Borrowing Plan (ABP)

- How best to meet gross financing requirement for year ahead consistently with MTDS targets?
- Based on
  - Projection of budget deficit, cash profile over the year
  - Taking account of expected disbursement of ODA loans
  - Consulting with central bank, macro-fiscal unit, others
- Bond issuance
  - Cost-risk trade-off, borrowing externally or domestically
  - Consider domestic market demand, expected interest rates, and shape of yield curve
  - Develop auction program for Treasury bonds; Treasury bills primarily to manage cash flow; publish calendar
  - All relevant units follow agreed borrowing plan

Scope of the Issuance Plan



- Other instruments to improve cost-risk characteristics of debt profile
  - Liability management operations (buy backs, debt exchanges) – also improve market liquidity
  - Derivatives (swaps etc) – change interest or currency composition – requires operational and risk management capabilities
  - Indicate intention in the MTDS

Outline

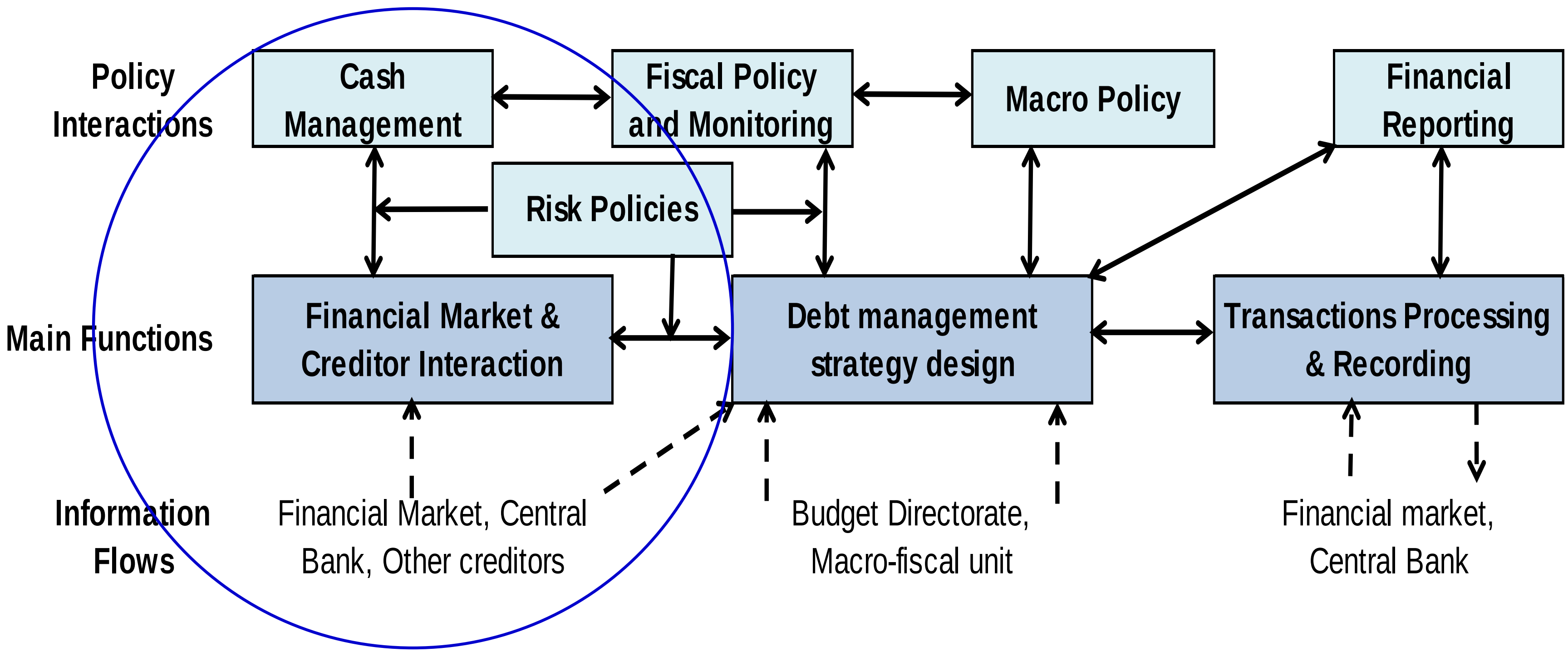
- The Principles of Debt Management
- Debt Management Strategy and its Execution
- Debt & Cash Managers: Functions and Objectives
- Debt & Cash Managers: Coordination Mechanisms

Debt Managers' Objectives and Functions

- Objectives
  - "to ensure that the government's financing needs and its payment obligations are met at the lowest possible cost over the medium to long run, consistent with a prudent degree of risk" [and develop the bond market]
- Key roles
  - "to establish and then execute a strategy …in order to raise the required amount of funding, and to achieve its cost and risk objectives"

- Functions
  - Debt management strategy design
  - Transactions execution, negotiation with creditors
  - Transactions processing and recording
  - Also
    - Financial reporting
    - Risk monitoring and compliance:
    - Stakeholder relationship management
    - Policy and advisory services

Functions and Interactions



The Functions of Today's Cash Manager

Monitoring and accessing the government's cash

- Development of the TSA, identifying other available assets
- Monitoring the cash balance
- Developing policies for the use of surpluses, and the cash buffer

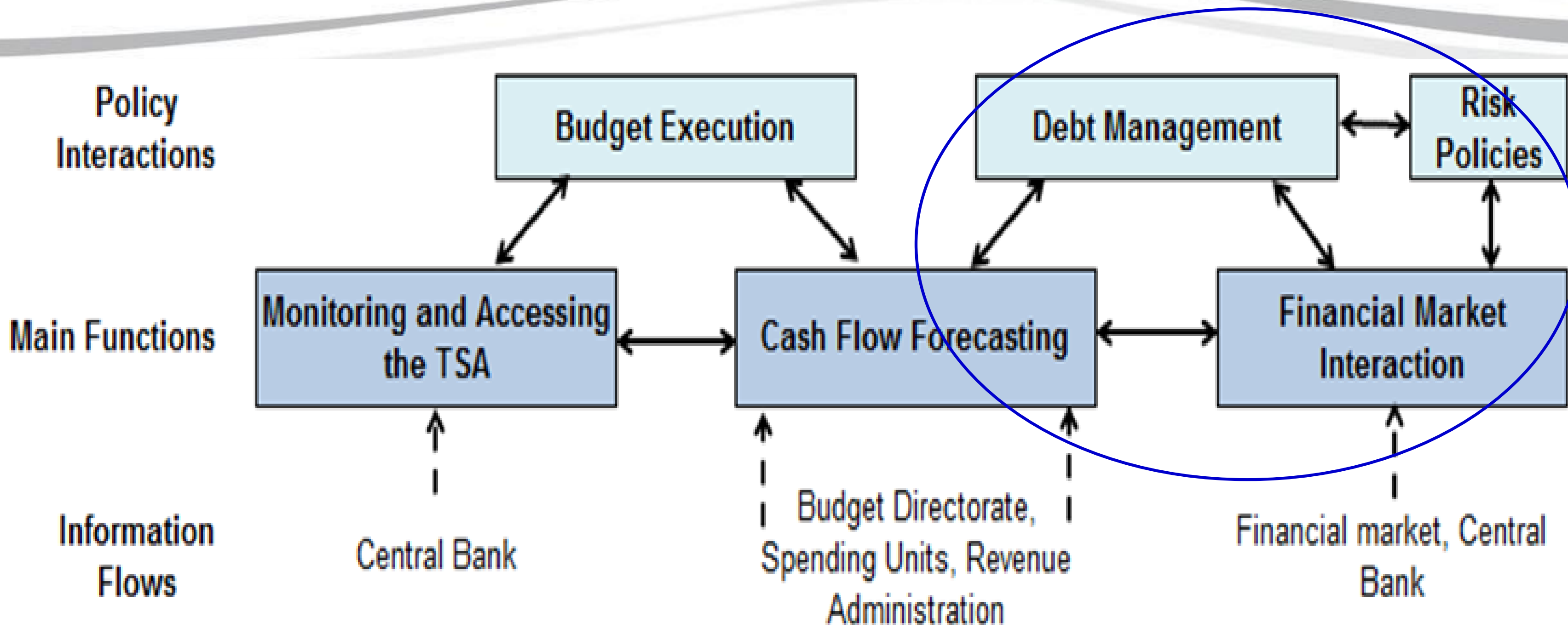
Cash flow forecasting

- The development of a capability to monitor and forecast (at least 3 months ahead) changes in balances in the TSA

Financial market interaction

- Identifying options to manage cost-effectively the net cash flow deficits and surpluses
- Putting in place safety nets for meeting unanticipated cash flow deficits
- [Executing short-term transactions]

Some implications…



- A range of functions and policy interactions
- In making their financing decisions [debt/cash] managers must
  - Juggle the full range of instruments
  - Trading-off the demands of the strategy, the demands of the market, and the government's need for cash, taking account of interest rates
- Several interested parties and information needs

Operational Coordination

Other day-to-day coordination requirements include:

- Linkage of issuance dates with redemption dates
- 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
- Debt managers can also correct repo market distortions or disruptions

As interaction with the market develops, potentially greater benefits flow from integration of debt & cash functions

- 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
- In any event, front office should be integrated - to ensure that the government presents a consistent face to the market

The Coordination Cycle

Preparation of the Debt Management Strategy

- Ensure sufficient stock of Tbills
- Building a cash buffer,
- Money market development

Preparation of Annual Financing Plan

- Reflecting in-year profile of cash flows
- Timing of redemptions

The Monthly / Quarterly Issuance Plan

- Retaining some flexibility to respond to events (eg in the issue of Tbills)

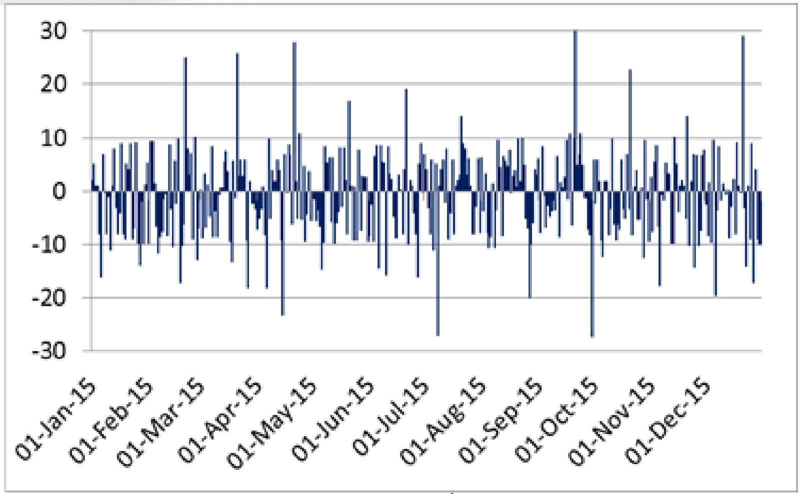
Interaction with Central Bank

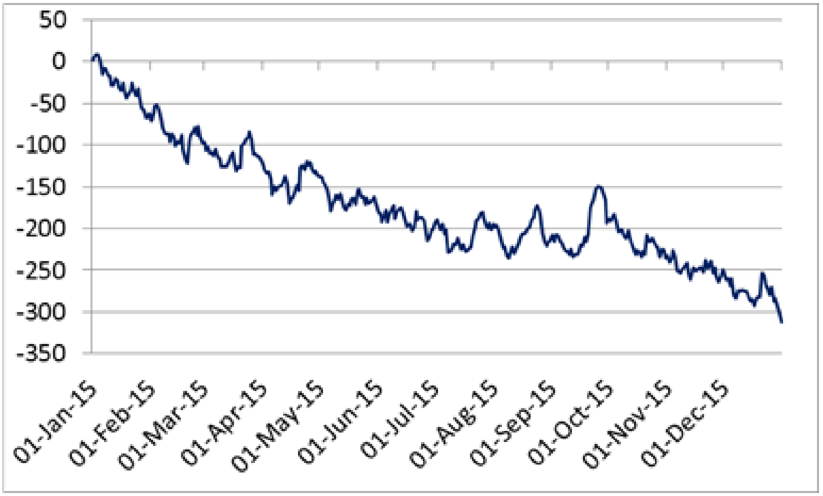
- Operational understanding important to both debt and cash managers
- Bank may also be fiscal agent
- Other cash management requirements
  - Monitoring TSA
  - Investing surpluses

Short-term Responses to Market Volatility

- Tbills and Tbonds can work together to meet the borrowing requirement and smooth cash flows

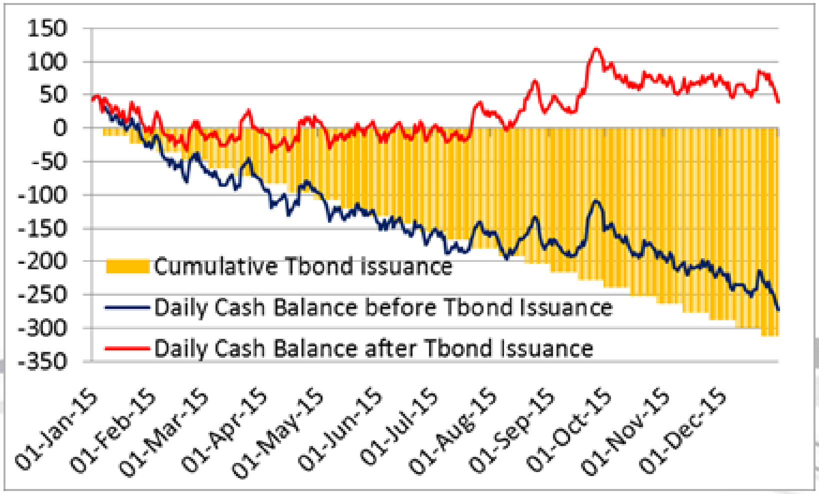
Smoothing Cash Flow: Treasury Bonds





Daily cash flow before bond issuance

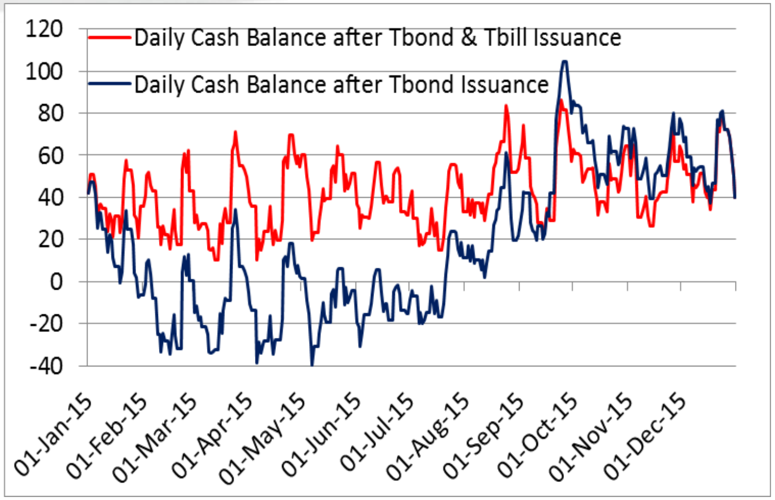
Cumulative daily cash flow

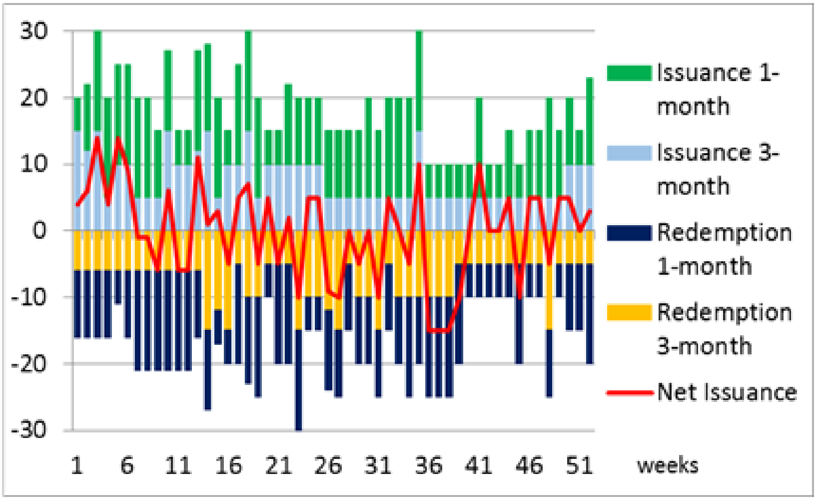


The impact of smooth gross Tbond issuance (net issuance = deficit)

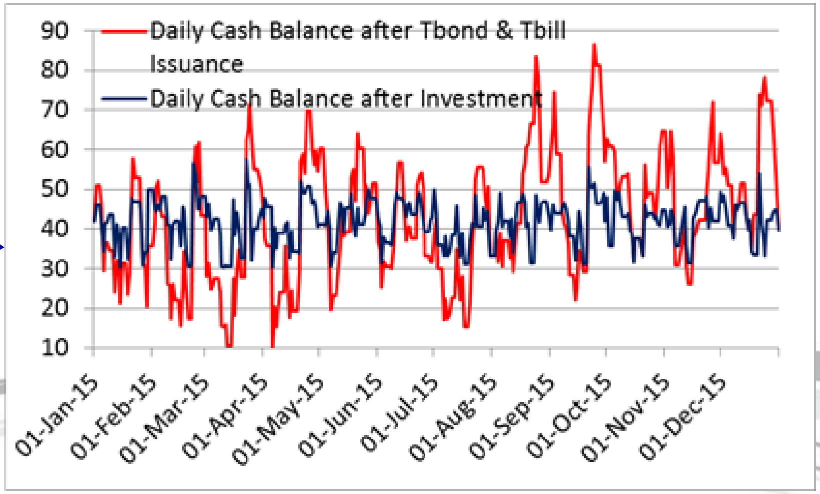
How does the Treasury maintain the cash buffer close to its target (40 in the example)?

Smoothing Cash Flows with Tbills





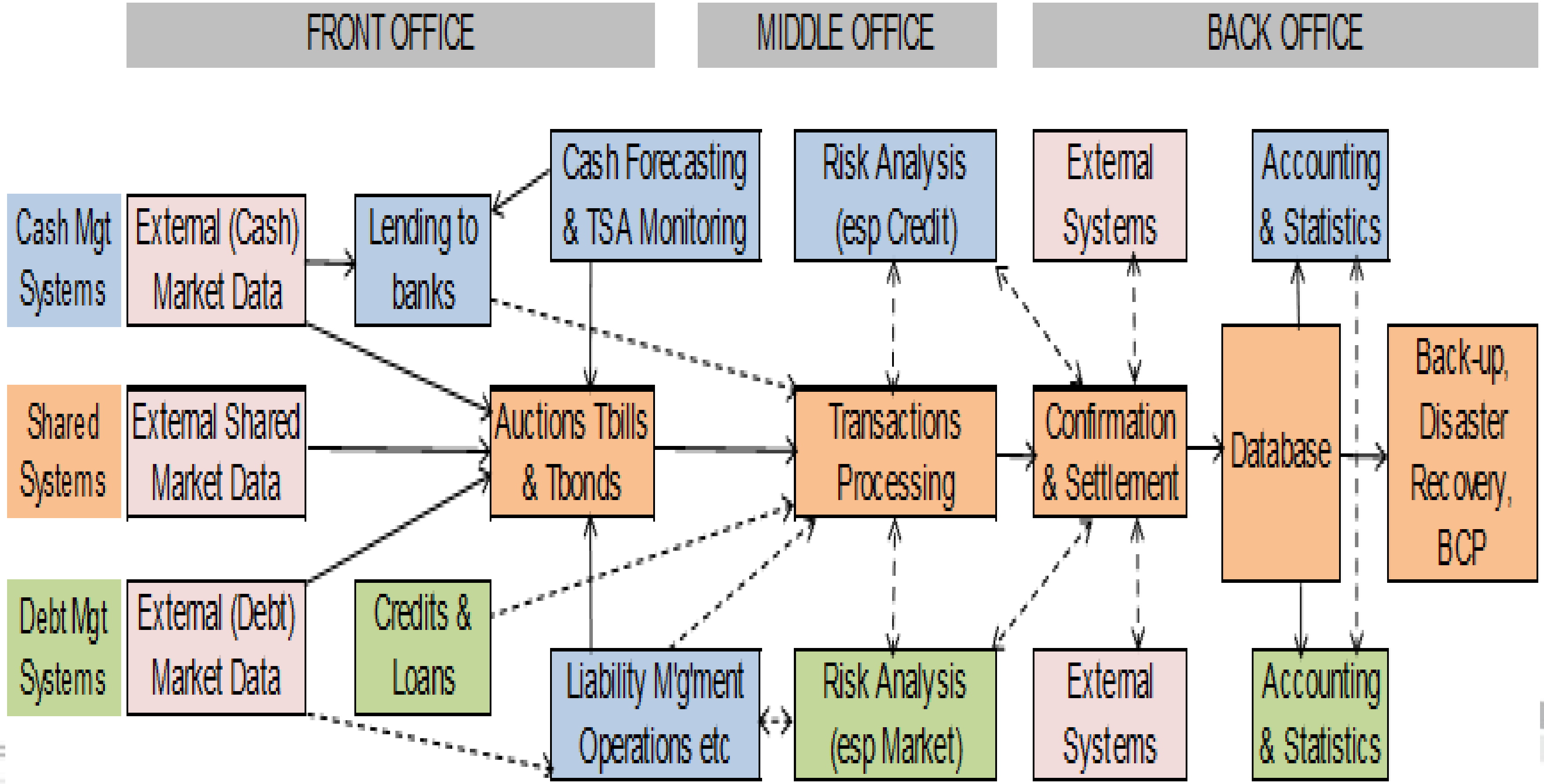
Smoothing with 1-month & 3-month Tbills



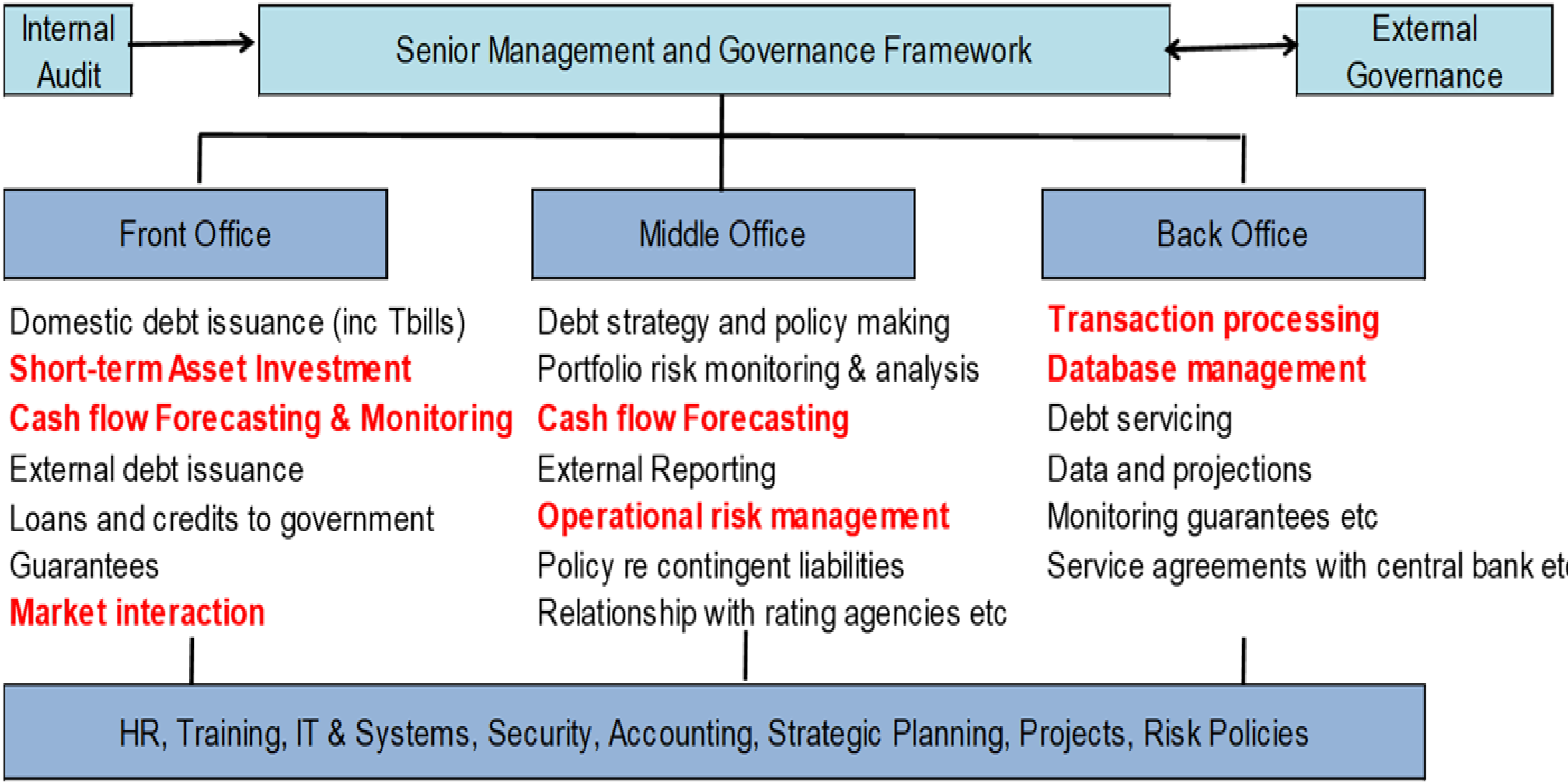
Additional Smoothing with short-term investment

Administrative Synergies and Savings Drive Integration (esp. in Developed Countries)

Common skill requirements; and administrative savings in data & operational risk management



The Integrated Office



Outline

- The Principles of Debt Management
- Debt Management Strategy and its Execution
- Debt & Cash Managers: Functions and Objectives
- Debt & Cash Managers: Coordination Mechanisms

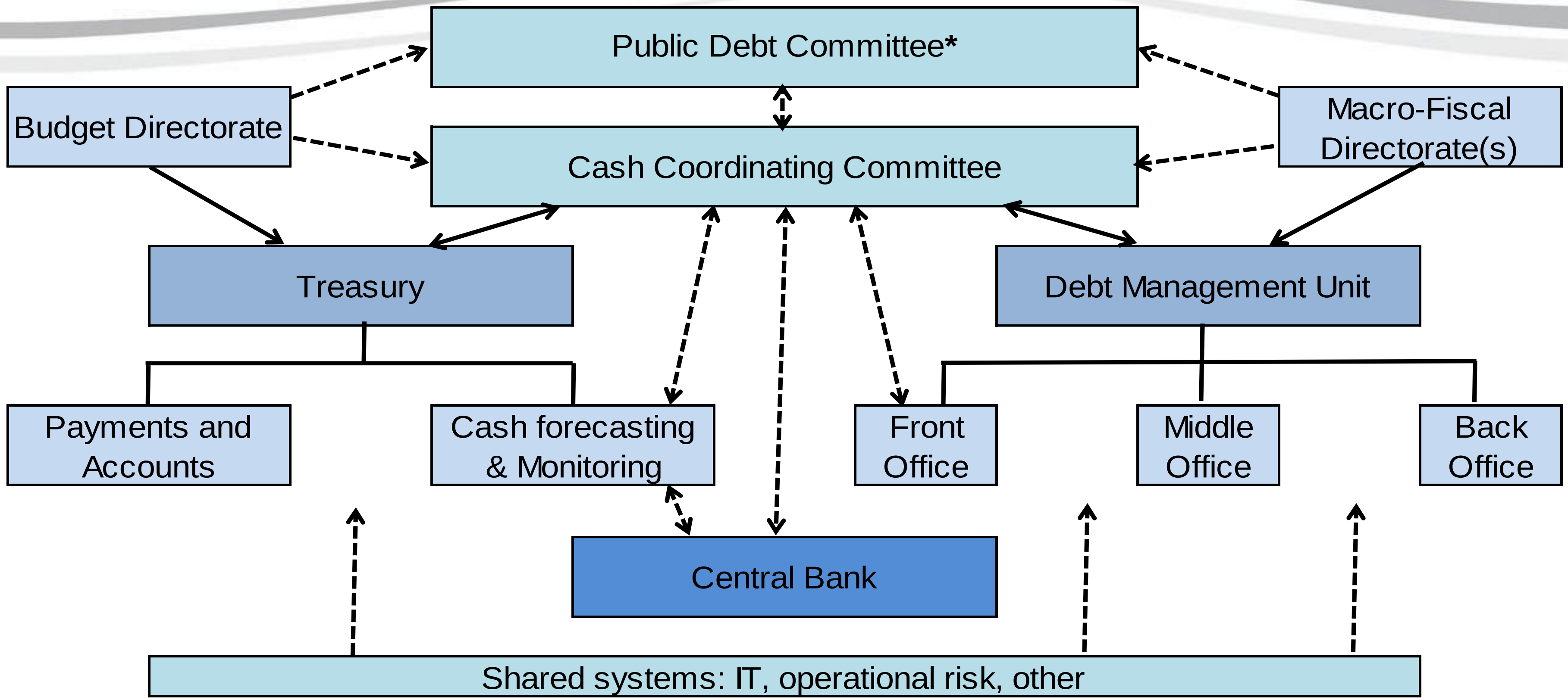
Effective Coordination requires…

- Coordinated approach to stakeholders
  - Single interface with the market for transactions
  - Coordinated negotiation of MoUs/SLAs with central bank
- Shared support services
  - Especially IT, including disaster recovery and BCP
- Common operational risk framework
  - Identification, assessment and reporting
  - Including role of internal control and internal audit
- Systematic exchange of information
- Coordination of decision making
  - Strategic: debt management strategy taking account of short term assets and liabilities
  - Tactical: issuance taking account of cash requirements
  - Implications for governance framework

Cash Coordinating Committee

- Useful and widely used coordination mechanism for short-term cash management decisions
- Meets weekly, chaired e.g. by Head Treasury
  - Including also budget division, debt managers, central bank, tax authorities, possibly large spending ministries
  - Delegated authority for decisions within agreed parameters
- Main responsibilities:
  - Review cash flow outturns, and the comparison with forecasts
  - Review cash flow forecasts for the period ahead
  - Decide on the action needed to ensure cash adequacy over the period ahead [making recommendations accordingly]
- Supported by Cash Management Unit (CMU)
  - Responsible for forecast preparation, database, error analysis etc
  - Also preparation of scenarios and what-ifs

Debt and Cash Management: Coordination



- *PDC: main roles: high-level policy and risk framework for debt [& cash] management; preparation/approval debt strategy; mandating execution responsibilities; target setting and performance monitoring
- CCC may report to Minster or be constituted as a sub-committee of PDC

Advising the Cash Committee - 1

Prepared by: [name]
Circulated on: [date]
For meeting of [Cash Coordinating Committee] at [end Sept] senior management meeting
Reference [as required]

Note: Some months will have 5 weeks (shown here for November); some countries prefer to present 4 weeks plus a stub

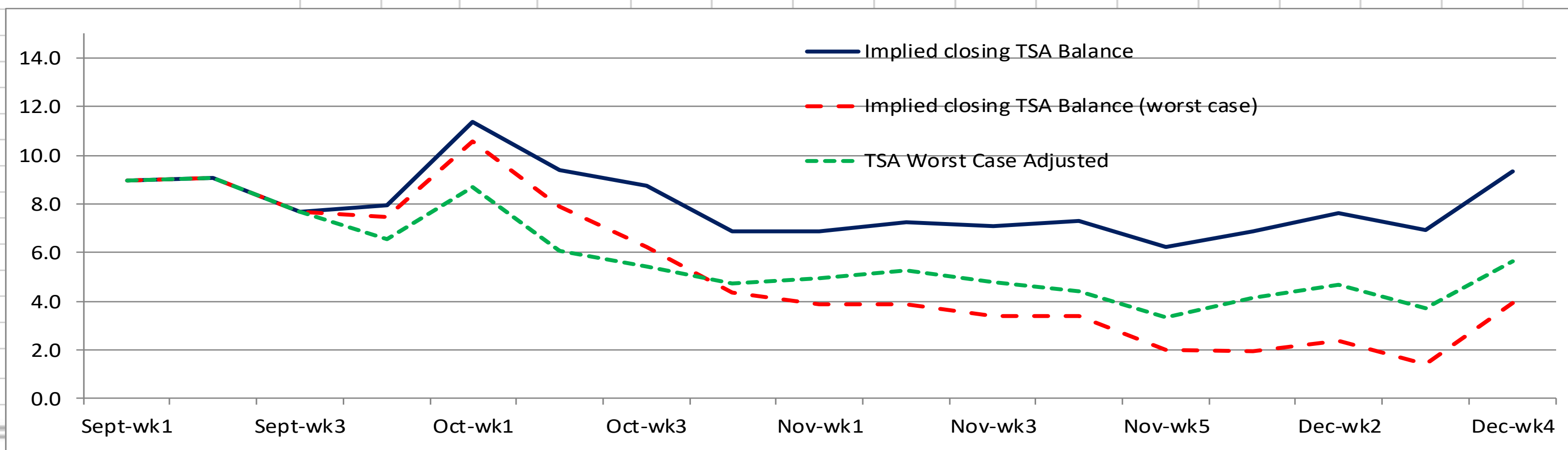
All figures rounded to [3] significant figures

		Outturn to end Week 3 month 9 (Sept), estimated outturn week 4				Forecast												
						Month 10 October				Month 11 November					Month 12 December			
Notes		Sept-wk1	Sept-wk2	Sept-wk3	Sept-wk4	Oct-wk1	Oct-wk2	Oct-wk3	Oct-wk4	Nov-wk1	Nov-wk2	Nov-wk3	Nov-wk4	Nov-wk5	Dec-wk1	Dec-wk2	Dec-wk3	Dec-wk4
1	**Opening TSA Balance**	8.2																
	Receipts																	
2	Current Receipts	Detail as required																
3	Capital Receipts																	
	Payments																	
4	Salaries	Detail as required																
5	Good and Services																	
6	Transfers																	
7	Other current expenses																	
8	Debt interest																	
9	Investment																	
10	**Deficit/Surplus**																	
	Other Capital Flows																	
11	Redemptions (negative)	Detail as required																
12	Grants																	
13	Other																	
	Financing																	
14	Loans and Credits	Detail as required																
15	Tbonds (as previously announced)			0.6				0.6					0.6				0.6	
16	Tbills (as previously announced)		0.2		0.2		0.2		0.2		0.2			0.2		0.2		0.2
17	**Implied closing TSA Balance**	9.0	9.1	7.7	7.9	11.4	9.4	8.7	6.9	6.9	7.3	7.1	7.3	6.2	6.9	7.6	6.9	9.3

Note: all figures below are illustrative only

Advising the Cash Committee - 2

		Sept-wk1	Sept-wk2	Sept-wk3	Sept-wk4	Oct-wk1	Oct-wk2	Oct-wk3	Oct-wk4	Nov-wk1	Nov-wk2	Nov-wk3	Nov-wk4	Nov-wk5	Dec-wk1	Dec-wk2	Dec-wk3	Dec-wk4
	Sensitivities/Contingencies																	
18	Persistent shortfall in revenue				-0.3	-0.3	-0.3	-0.3	-0.3	-0.3	-0.3	-0.3	-0.3	-0.3	-0.3	-0.3	-0.3	-0.3
19	Delays in grants received (timing only)						-0.3		0.3						-0.4			0.4
20	Assistance to flooded regions									-0.2	-0.2							
21	Roads expenditure brought forward						-0.1	-0.1			0.1		0.1					
22	Failed Auction							-0.6										
23	**sub-total**				-0.3	-0.3	-0.7	-1.0	0.0	-0.5	-0.4	-0.3	-0.2	-0.3	-0.7	-0.3	-0.3	0.1
24	**cumulative**				-0.5	-0.8	-1.5	-2.5	-2.5	-3.0	-3.4	-3.7	-3.9	-4.2	-4.9	-5.2	-5.5	-5.4
25	**Implied closing TSA Balance (worst case)**	9.0	9.1	7.7	7.4	10.6	7.9	6.2	4.4	3.9	3.9	3.4	3.4	2.0	2.0	2.4	1.4	3.9
	Possible policy options																	
26	Invest surplus cash, for 3 wks				-1.0	-1.0		1.0	1.0									
27	Increase Tbill issuance				0.1		0.1		0.2		0.3			0.1		0.1		0.0
28	Extra Tbond auction, increase amount									0.7			-0.6		0.7			
29	As necessary, delays in expenditure approval												0.2	0.2	0.2			-0.6
30	**sub-total**				-0.9	-1.0	0.1	1.0	1.2	0.7	0.3	0.0	-0.4	0.3	0.9	0.1	0.0	-0.6
31	**cumulative**				-0.9	-1.9	-1.8	-0.8	0.4	1.1	1.4	1.4	1.0	1.3	2.2	2.3	2.3	1.7
32	**TSA Worst Case Adjusted**	9.0	9.1	7.7	6.5	8.7	6.1	5.4	4.8	5.0	5.3	4.8	4.4	3.3	4.2	4.7	3.7	5.6



References

- IMF & World Bank (2014) "Revised Guidelines for Public Debt Management" https://www.imf.org/en/Publications/Policy-Papers/Issues/2016/12/31/Revised-Guidelines-for-Public-Debt-Management-PP4855
- Graeme Wheeler (2004) "Sound Practice in Government Debt Management" (World Bank) https://openknowledge.worldbank.org/handle/10986/15017
- World Bank "Debt Management Performance Assessment (DeMPA) Methodology" materials at http://www.worldbank.org/en/topic/debt/brief/dempa-2015
- World Bank & IMF "Medium-term Debt Management Strategy" materials at: http://www.worldbank.org/en/topic/debt/brief/mtds
- Elizabeth Currie & others (2003) "Institutional Arrangements for Public Debt Management" (World Bank) http://documents.worldbank.org/curated/en/400701468765854654/Institutional-arrangements-for-public-debt-management
- Mike Williams (2010) "Government Cash Management: Its Interaction with Other Financial Policies" (IMF Technical Notes and Manuals) www.imf.org/external/pubs/ft/tnm/2010/tnm1013.pdf
- Mario Pessoa & others (2015) "Cash and Debt Management: Interaction, Coordination, and Integration" in Public Financial Management in Latin America: The Key to Efficiency and Transparency (IADB) https://publications.iadb.org/handle/11319/7123

Thank You!