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EQUITABLE GROWTH, FINANCE & INSTITUTIONS INSIGHT

# Cash Management and Commitment Control

Principles and Problems in Practice



WORLD BANK GROUP

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## Executive Summary

**COVID-19 resulted in two immediate challenges for ministries of finance - a sudden reduction in cash inflows, combined with a new set of significant unplanned expenditures.**

Theory on cash management and commitment control gives us an array of sound practices encompassing accrual accounting methods, the Treasury Single Account and integrated budgeting, commitment, and payment systems. However, such theory does not always give practical answers on how to address the real and varied challenges faced by finance ministries and spending departments in managing cash - including those that COVID-19 has presented. As reforms are developed, keeping an eye on theory is important, but understanding what is realistic and achievable in the specific context, and more importantly how to improve budgetary outcomes, will benefit from both practical experience and careful judgement.

**This Practice Note is designed to help practitioners identify the problem that needs resolving and the underlying causes, select the instrument(s) that are most relevant for addressing them, and weigh options for how to deliver solutions.** Examples from the experience of country teams are used wherever possible to illustrate both problems and solutions in cash management and commitment reform. The note aims to inform practitioners by:

- Presenting the overall theory of cash management and commitment control and how it can deliver predictable resources.
- How the process can break down in practice – bottlenecks and underlying causes.
- How to get the problem diagnosis right.
- Identifying technical solutions which best address the underlying causes.
- Reference to further guidance and tools to support solutions.

### How Cash Management and Commitment Control Break Down in Practice

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Cash management and commitment controls may break down along several dimensions which undermine the ability of the governments to maintain overall fiscal discipline, maintain borrowing within agreed limits, and deliver funds to spending units when they need it to deliver investments and services. Three key areas are highlighted below.

## Planning and Forecasting

- Poor forecasting leaves a Treasury with inadequate information on cash flows and too little reaction time to address cash management issues efficiently.
- Exposure to this risk raises the possibility of unplanned, short-term, and expensive borrowing and accumulation of debt and arrears, potential cash rationing, and delays impacting on the smooth and predictable funding of service delivery.
- Causes of poor forecasting may include over-optimistic revenue projections from the macrofiscal framework; unrealistic budgets prepared by ministries, departments and agencies (MDAs) with inadequate challenge from the Ministry of Finance; poor forecasting and analytical skills within Treasury; and breakdown in institutional communication and data sharing.

## Effective Expenditure Controls

- Weak management of commitments can lead to a build-up of arrears, restricting fiscal space and affecting the ability to finance planned service delivery.
- Poor recording of commitments and arrears combined with cash-based reporting can hide the scale of existing liabilities. A weak commitment tracking regime may incentivize spending agencies to withhold information on contractual obligations or other contingent liabilities until they become unavoidable and must either be paid or become arrears.
- Controlling spending at the point of cash rather than commitment can place a lot of pressure on Treasury officials and create gate-keeping roles which undermine transparency and efficiency.

## Functional Treasury Single Account and Banking Arrangements

- A multiplicity of spending agency bank accounts or a partially implemented Treasury Single Account (TSA) will result in resorting to borrowing unnecessarily and delaying or limiting payments despite idle balances existing in government accounts. This would elevate the cost of carry reducing resources available to spending agencies for service delivery.

- Furthermore, it may increase incentives for agencies to limit information on cash balances, encourage rent-seeking opportunities within agencies, and allow commercial banks to utilise the balances to extend credit, tying up the funds and thereby draining liquidity. Bank reconciliations may be delayed or not done at all, further undermining the information on any cash available.

**Managers at all levels should be held accountable for delivering results and providing public services through appropriate use of funds under their control.** This in turn requires that public managers at all levels know the availability and predictability of funds to meet the objectives of the public services reflected in the government's policies and priorities. However, service delivery units are often affected by late and inadequate funds to meet payment obligations for service delivery. Uncertainty about actual cash balances drives Treasuries to engage in cash rationing, especially during the first quarters of the fiscal year, thereby hindering smooth execution of the development budget. In addition, this uncertainty often leads governments to borrow pre-emptively, which increases associated costs. Linking budget, workplans, procurement plans, and cash requirement will improve predictability of availability of funds to undertake service delivery activities.

The key principles and requirements to consider in designing an appropriate cash management function and a comprehensive TSA architecture are: institutional arrangements for cash management function including capacity for revenue projections and cash forecasting by the spending units; coordination with debt management; ability of the accounting framework to pool bank accounts and set-off between bank accounts; surplus cash to earn interest; minimize idle cash balances; and electronic banking facilities.

## Lessons Drawn from Case Studies

**This Practice Note draws from experience and primary data in eight case studies in the Africa and South Asia regions with the selection based on varied capacity across the region and the existence of ongoing or recent reforms.** The case studies were: Bangladesh, Bhutan, Kenya, Pakistan, Sierra Leone, Somalia, West Bank and Gaza and Zambia. The engagement included remote interviews with key World Bank staff members, review of primary documentation and reports from government and World Bank sources, and follow up joint engagement with country teams around accuracy of presentation of issues. This Practice Note is designed to



be both globally and operationally relevant by setting out an approach to identifying country specific challenges and solutions. This paper does not provide an exhaustive set of potential challenges, examples, and approaches. The dissemination of this note will be used to identify areas that may need deepening. Future research will collect examples and practices from other regions. The expansion of engagement to a variety of further regions is also expected to help reveal a richer set of data and more information on possible causes and solutions for weaker outcomes in cash management and commitment control.

**Full commitment from the leadership and careful timing of expenditure control reforms is important to clearly signal change and avoid false starts.** The moment cash or commitment controls or TSA reforms cause tangible impact, i.e. constraints and expenditure are tightened for MDAs or are expected to do so, there is likely to be resistance. Subtle or overt resistance along the way is likely to slow progress where understanding is poor or information sharing either yields no effect or negative effects for MDAs. Internal, especially personal incentives may be hard to predict and even harder to pin down precisely, making full Treasury commitment a key aspect in any reforms that are likely to address internal vested interests. TSA reforms in Sierra Leone are a good example where, despite significant technical progress on reform, it was forced to wait until the entry of a new progressive government to implement in a meaningful way. But why do these reforms have impact? The general objective of cash management is to improve cash predictability does not constrain it. So why does this happen?

**Reassuring MDAs of a distinction between cash planning and expenditure control is a hard thing to do when there is a no perceived (or real) difference between the two.** In many lower income countries, commitment control is either non-existent or meaningless and controls occur at payment stage. Best practice suggests MDA cash plans should inform cash management but not overall expenditure control, and MDAs will be wary to share information if they believe it will be used for expenditure control (Lienert 2009). Communication of this distinction is important, especially in circumstances where the concepts are new. Essentially, incentives around information sharing for cash management should get easier once expenditure controls can be clearly separated from it.

**An unreliable budget undermines the credibility of allotments and commitment control.** Allotments will need to be lower than the appropriated budget if they are to be credible in any situation where revenues are systematically over-optimistic, or budget execution is subject to unplanned

additional expenditures. Whether this is achieved through creating a buffer between cash plans/allotments and the budget ceilings (Kenya, Sierra Leone), or through in-year reallocation of budget (Bangladesh) - where the budget is not credible, the perception from MDAs will always be that information sharing may affect cash availability, largely because it is true. MDAs that expect to be prioritized have no incentive to share cash plans and those that do not are demotivated from preparing them. Addressing this is a challenge as it ultimately involves developing trust between the institutions. This can be generated over time through consistency between the cash plan and cash allocation. Communication and awareness raising by the Treasury is also likely to be beneficial, while regulation to require information sharing may provide a necessary push and create a level playing field between institutions if enforced consistently.

**Tying cash plans too closely to allotments in these circumstances creates structural disincentives to share information.** Case study countries have addressed this by first introducing technical reforms with limited immediate impact on MDAs. Being careful to avoid real or perceived influence of information sharing on cash availability to execute their budget has made capacity building easier. For example, establishing cash forecasting functions that have little or no effect on commitment controls is relatively easy to do. Of course, this is not achieving the objectives of reform or resolving the problems—cash availability is only a little smoother and arrears are still rising. What it does do is allow the technical capacity to be in place when the political will to implement emerges. The more credible a budget is, the easier it may be to introduce the constraints. This is because it will have fewer negative effects on those MDAs that might have benefitted from a less credible budget, therefore likely raising less resistance from them.

**Solutions for cash forecasting depend on what you are trying to achieve.** Kenya, Sierra Leone, and West Bank and Gaza each embarked on cash management reforms, but the objectives of each of the reforms were different. In Kenya, the primary objective was to develop an aggregate cash plan, and subsequently update it in-year from forecast data and actuals to deliver more predictable cash allocations to spending units responsible for service delivery. In Sierra Leone and West Bank and Gaza, the primary objective was to establish in-year forecasting capabilities to help inform cash management decisions, with the introduction of MDA cash plans a later addition to the reform. In Sierra Leone and West Bank and Gaza, the reform steps included improving basic capacity benefits from starting simple, developing more functions slowly over time, establishing clear roles, and slowly improving

liaison and trust with the debt and budget departments and central bank. In Kenya, a goal of influencing allotments through better connection of cash plans with the budget and technical solutions to allow more granular prioritization of payments embedded in the Integrated Financial Management Information System (IFMIS) led to a more ambitious tool and functions to align MDA plans with service delivery priorities, but less consensus building around the forecast and sharing of data for cash management decisions. Forecasting outcomes were better in Sierra Leone and West Bank and Gaza, but the infrastructure for cash planning and actively using the cash plan to inform cash management during budget execution was better in Kenya.

**Extensive consultation, establishment of broad understanding of the issues across multiple agencies starting with the Treasury, and careful attention to change management will help build trust between the Treasury other key departments and MDAs.** A cash management framework or multi-institutional terms of reference that are fully understood and designed to be flexible and grow as the institutions and functions develop has proven an effective tool to strengthen cooperation (See Annex 6). Misunderstanding of the objectives of cash management, unwillingness to share information, and mistrust has occurred for years in most of the case study examples, delaying progress for far longer than anticipated. A process of iterative consensus building and collaborative identification and understanding of challenges and development of solutions is critical to progress.

**Ex-ante agreement between MDAs and the Treasury on expenditure priorities within the budget helps to identify which payments to protect in the event of a cash shortfall.** Statutory expenditures such as salaries, interest payments and international obligations are typically prioritized by default. Identification of priority service delivery programs by MDAs helps the Treasury to be more targeted in delaying payments and maintain smooth payments to key services. It also helps to detach the Treasury from short-term payment decisions and ad hoc pressure from MDAs. It is important to consider going beyond binary “non-discretionary” and “other” in this schema to enable key service delivery expenditures and investments to be prioritized after payroll and other statutory items and before “other.” Attaching this prioritization to the budget, allotments, and commitments via the Chart of Accounts (COA) allows it to be automated and limits opportunity for negotiation. Kenya has designed a process to deliver this which is currently being implemented within the IFMIS system. Technical delivery is certainly more complex than a simple cash forecasting tool, but the messaging around how prioritization of commitments

is made, and assuring MDAs that cash plans do not inform expenditure control – the *budget* does via agreed priority items – are keys to success.

**The benefits of a TSA can only be fully realized if upstream functions are reliable, particularly a credible revenue forecast, a realistic budget, and commitment controls.** A functional Treasury Single Account is a central feature of modern cash management, allowing the Treasury to track overall available cash across all central and commercial government accounts, avoid borrowing unless strictly necessary, and deploy idle balances in the most efficient manner. Experience from Sierra Leone, where there have been significant steps towards a TSA, shows that progress is feasible even in a context where government-wide capacity is relatively poor, but the core team in Treasury is capable and committed and the leadership is supportive. However, improved data on bank balances does not translate to immediately improved cash management. Much of the idle balances, now visible through the TSA framework, still cannot be consolidated as they are largely donor or other protected funds. Furthermore, while the TSA does help with predicting cash availability, and the improved relationship with the debt office enhances the tools available to smooth spending, optimistic revenue, unrealistic budgets, and a lack of commitment control still causes structural gaps between inflows and outflows and cash rationing is required.

**Reducing the prevalence of protected funds requires a minimum threshold of credibility, transparency, and consistency of partner country public financial management (PFM) systems to gain the trust of donors and other funders, and the World Bank can help to strengthen systems as this trust is being developed.** Commitments from donors, and particularly the World Bank (WB), to map project accounts to the TSA in a structured and consistent way across all projects in all sectors will help to initially reveal the available cash as it has done in Sierra Leone. Once this is in place, development of a progressive program of transferring cash management functions to the Treasury based on performance in transparency and management of accounts under the TSA could be considered. This exercise requires significant coordination and change management within the World Bank to encourage task team leaders (TTLs) managing sector projects to commit to “less protected” funding arrangements in a coordinated manner. This may be best delivered through piloting with one or two key sectors as it has in Bangladesh, with a major focus on change management for both the government and World Bank program management.

# Taking Practical Steps Towards Strengthening Cash Management and Commitment Control

This Practice Note provides a theoretical overview of the main features of modern cash management processes as they occur through the fiscal year and the supporting legal and institutional frameworks. Examples of useful practices and experience from case study countries are presented throughout. The second section looks at potential

bottlenecks in three key areas: forecasting, TSA, and banking arrangements and commitment control. Guidance on how to identify problems in these areas and drill down to find the underlying causes that may contribute to poor outcomes. The table below shows eight common problems and the effects they have in the three areas:

POTENTIAL PROBLEM	POTENTIAL EFFECTS ON:		
	Planning and Forecasting	Commitment Control	TSA and Bank Accounts
<p><b>Over-Optimistic Revenue Projections</b> – Where the revenue estimates guiding the macrofiscal frame and the approved budget are unlikely to be realized and the financing of the budget is likely to be compromised.</p>	<ul style="list-style-type: none"> <li>Unrealistic levels of expenditure are approved as a result</li> <li>Macrofiscal framework is weakened</li> <li>Unrealistic MDA Cash Plans undermine forecasting.</li> </ul>	<ul style="list-style-type: none"> <li>Cash shortfall likely, when optimistic revenue estimates are systemic. If allotments are not adjusted, pressure on Treasury to manage at commitment or ration cash at payment stage.</li> </ul>	<ul style="list-style-type: none"> <li>Establish special accounts</li> <li>Resist implementation of TSA.</li> </ul>
<p><b>Unrealistic Expenditure</b> – Where the budget is not executed as planned and either the composition of the budget, aggregate execution or both deviate from the approved budget.</p>	<ul style="list-style-type: none"> <li>Budget cuts, additional unplanned borrowing or deferred payments become necessary as a result of:                             <ul style="list-style-type: none"> <li>Budgeted items are unaffordable</li> <li>Unbudgeted items are presented for expenditure displacing budgeted items.</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>Unrealistic allotments, especially where cash managers are unable to influence</li> <li>Poorly recorded or unknown obligations or contingent liabilities.</li> </ul>	<ul style="list-style-type: none"> <li>Establish special accounts</li> <li>Donor projects require special accounts due to unreliable budget execution</li> <li>Resist implementation of TSA.</li> </ul>
<p><b>In-Year Mismatch Between Inflows and Outflows</b> – Where the profile of cash requirements is not matched by cash availability and either unplanned debt or adjustments to budget implementation are necessary.</p>	<ul style="list-style-type: none"> <li>Inability to anticipate mismatches weakens cash forecast.</li> </ul>	<ul style="list-style-type: none"> <li>Allotments poorly informed by likely cash availability.</li> <li>Payment delays and arrears.</li> <li>Costly unplanned borrowing.</li> </ul>	

Potential Problem	Potential effects on:		
	Planning and Forecasting	Commitment Control	TSA and Bank Accounts
<p><b>Ad hoc or reactive debt decisions</b> – Where decisions on debt financing are excessively driven by in-year pressures with limited prior planning, leading to inefficient borrowing.</p>	<ul style="list-style-type: none"> <li>• Borrowing is costly or not available at times when required to address short term cash shortfalls.</li> <li>• Unplanned calls on the budget due to increased interest payments.</li> <li>• Cost of carry.</li> </ul>	<ul style="list-style-type: none"> <li>• Unplanned calls on the budget due to increased interest payments.</li> </ul>	
<p><b>Commitments made beyond available cash</b> – Where the obligations entered into by government are not constrained by the cash plan, cash availability falls short of the cash plan, or a combination of both leading to payments being deferred or short-term unplanned borrowing.</p>	<ul style="list-style-type: none"> <li>• Unplanned commitments impact plans.</li> <li>• Cash rationing.</li> <li>• High cost debt.</li> <li>• Accumulation of arrears.</li> </ul>	<ul style="list-style-type: none"> <li>• Direct effect.</li> </ul>	
<p><b>Short-term/centralized decisions about what gets paid</b> – Where commitment control is weak or non-existent and the senior management of the Treasury makes weekly or even daily decisions about which invoices to pay and which to defer.</p>	<ul style="list-style-type: none"> <li>• Budget deviations</li> <li>• Deviation from borrowing plan.</li> <li>• Delayed payments and/ or arrears growth.</li> </ul>	<ul style="list-style-type: none"> <li>• Existing, budgeted commitments are not honored, accumulation of arrears.</li> </ul>	
<p><b>Lack of transparency in banking arrangements</b> – Where a TSA and associated reporting on all government accounts is weak or non-existent and the Treasury is unable to access or manage cash balances comprehensively.</p>	<ul style="list-style-type: none"> <li>• Weakens available information for forecasting</li> <li>• Limits access to cash even if it is idle.</li> </ul>	<ul style="list-style-type: none"> <li>• Cash may be available but cannot be accessed causing commitments to not be payable.</li> <li>• Cost of carry.</li> </ul>	<ul style="list-style-type: none"> <li>• Direct effect.</li> <li>• Cost of carry.</li> <li>• Unplanned and costly borrowing.</li> </ul>

POTENTIAL PROBLEM	POTENTIAL EFFECTS ON:		
	Planning and Forecasting	Commitment Control	TSA and Bank Accounts
<p><b>Weak institutions and collective action problems</b> – Where cooperation and information sharing between institutions is inadequate to perform cash management and commitment control functions.</p>	<ul style="list-style-type: none"> <li>• Departments within Ministry of Finance (macro, debt, budget, accounting) do not coordinate.</li> <li>• MDAs are incentivized not to share information.</li> </ul>	<ul style="list-style-type: none"> <li>• MDAs are incentivized not to share information.</li> <li>• Commitments are made off system.</li> </ul>	<ul style="list-style-type: none"> <li>• Resist implementation of TSA.</li> </ul>

The third section provides guidance on supporting the client in identification of possible solutions to address underlying causes, and sets out the principles for establishing a collaborative reform process to address these challenges. The annexes provide examples of technical tools and resources that may be helpful to practitioners. Below is a checklist of key principles and components for an effective cash management and commitment control system which can be used alongside the problem diagnostic framework.

KEY PRINCIPLES	COMPONENTS
<p><b>1. Political support</b></p>	<ul style="list-style-type: none"> <li>• Compliance <b>enforced</b> and deviations <b>sanctioned</b>.</li> <li>• Leadership willing to <b>delegate</b> cash management decisions.</li> </ul>
<p><b>2. Legal and regulatory framework</b></p>	<ul style="list-style-type: none"> <li>• <b>Legal Authority</b> coordination of cash management and commitment control.</li> <li>• Legal authority for opening of <b>bank accounts</b>.</li> <li>• Legal basis for <b>electronic transactions</b> and <b>e-signature</b>.</li> <li>• Agreement with <b>Central Bank</b> and <b>Agent Bank(s)</b>.</li> </ul>
<p><b>3. Accurate projections of cash inflows and outflows</b></p>	<ul style="list-style-type: none"> <li>• <b>Realistic revenue projections</b> – revenue outturn close to original budget.</li> <li>• <b>Realistic expenditure projections</b> – expenditure outturn close to original budget.</li> <li>• Comprehensive <b>cash forecasting framework</b>: revenue, expenditure, grants, loans, debt service.</li> <li>• Aggregate and <b>in-year cash plans prepared and adjusted</b> – capturing in-year priorities aligned to the COA such as salaries, discretionary and non-discretionary payments, service delivery priorities.</li> <li>• Mechanisms for <b>joint agreement of cash forecasts</b> (within MoF, revenue authority, central bank).</li> </ul>
<p><b>4. Centralized government bank accounts</b></p>	<ul style="list-style-type: none"> <li>• <b>Treasury Single Account (TSA)</b> - an inventory of existing bank accounts to be used in Financial Management Information System (FMIS) and TSA operations.</li> <li>• FMIS accounting module general ledger (GL) should maintain <b>full cash book records for the TSA</b> bank accounts.</li> <li>• Bank statement containing all the details about the flow of funds in the TSA.</li> </ul>

Key Principles	Components
	<ul style="list-style-type: none"> <li>Fully operational interbank settlement systems.</li> <li>Regular reconciliations of bank accounts.</li> </ul>
<p><b>5. Commitment control and distribution of cash</b></p>	<ul style="list-style-type: none"> <li><b>Appropriation</b> – the approved budget of a spending unit – in place.</li> <li><b>MDAs have prepared cash plans</b> consistent with workplans and procurement plans which highlight the timing of commitments and cash requirements and are adjusted based on projected in year cash availability.</li> <li>Mechanism for <b>prioritizing and allocating cash outflows</b> according to spending category based on projected cash availability.</li> <li>Comprehensive <b>register of commitments</b> in place, including multi-year commitments.</li> <li><b>Allocation/allotments</b> made – providing authority to make a commitment up to a certain limit.</li> <li><b>Warrants/releases issued</b> based on cash available and MDA cash plans which provide authority to spend from the TSA up to warranted limits or actual transfer of cash to MDA account.</li> <li><b>Clear stages in transaction processing:</b> Requisition (<i>tie budget</i>), purchase order/contract (<i>ring-fence funds</i>), receipt of goods/services, invoice, obligation, arrears, liability, payment.</li> </ul>
<p><b>6. Strong institutional interaction and capability and functional systems</b></p>	<ul style="list-style-type: none"> <li>Clear, formal agreement of <b>institutional arrangements</b> and responsibilities between institutions, particularly departments within the Treasury/MoF, Central Bank and participating Agent Bank(s).</li> <li><b>Information sharing</b> between the Central Treasury, revenue collecting agencies and spending.</li> <li>Strong coordination of <b>debt and cash management</b>.</li> <li>Adequate <b>accounting framework</b> and modern systems for banking, payments, and settlement to support inter-institutional information flows.</li> <li><b>Effective communication</b> among stakeholders about cash availability, allotments, warrant/releases and spending unit obligations.</li> <li><b>Risk</b> management.</li> </ul>
<p><b>7. Liquidity</b></p>	<ul style="list-style-type: none"> <li>Ability to use short-term financing instruments within agreed limits</li> <li>Capacity for the investment of excess cash.</li> </ul>
<p><b>8. Human resource capacity and competencies</b></p>	<ul style="list-style-type: none"> <li>Established staffing and skills for aggregate cash forecasting within Treasury.</li> <li>Established capacity within MDAs for cash forecasting.</li> </ul>
<p><b>9. IT infrastructure</b></p>	<ul style="list-style-type: none"> <li>Systems to enable the alignment, consolidation and accessibility of: <ul style="list-style-type: none"> <li><b>MDA cash, commitment and procurement plans with the COA and budget</b></li> <li><b>Revenue, expenditure, debt, exchequer and forecasting data</b> to allow a complete aggregate cash plan and inform cash management decision making and changes to allotments.</li> </ul> </li> <li>Service level agreements (<b>SLA</b>) between central bank and commercial banks.</li> <li>Cybersecurity counter measures.</li> </ul>



# Principles of Cash Management and Commitment Control

## 1.1 Introduction

**Predictable resources are essential for delivering services on time and as planned.** Gaps in funding or expensive unplanned borrowing reduce a government's ability to implement its budget efficiently and effectively. Cash management is simply defined as making the right amount of money available at the right time and the right place to meet the government's obligations in the most cost-effective way (Storkey 2003). Cash management is necessary because there are mismatches between the timing of payments required to implement the budget and the availability of cash from revenues and from debt. (See [Box 1](#)).

**Closely linked to cash management, commitment control is the management and limitation of commitments to ensure the payments can be honored on time.** A commitment is a conditional obligation entered into by an MDA to make a future payment, subject to the fulfilment of pre-agreed conditions. The key objective of commitment control is a major step in expenditure control to manage the initial incurrence of obligations, rather than the subsequent cash payments, to enforce expenditure ceilings and avoid expenditure arrears (Radev and Khemani 2009).<sup>1</sup>

1. See Figure 5 for a complete overview of the expenditure control process and the role of commitment control.

> > >

## BOX 1 - Features of Cash Management and Commitment Control

1. Accurate projections of cash inflows and outflows enabling predictable funds for service delivery.
2. Centralized government bank accounts, interlinked by a Treasury Single Account.
3. Commitment control is implemented at the incurrence of obligations to eliminate pressure to enforce expenditure ceilings at the time of cash payments and avoid expenditure arears.
4. Strong institutional interaction and functional systems.
  - Clear, formal agreement of institutional arrangements and responsibilities between institutions, particularly the Treasury and Central Bank.
  - Information sharing between the Central Treasury, revenue collecting agencies and spending
  - Strong coordination of debt and cash management.
  - Adequate accounting framework and modern systems for banking, payments, and settlement to support inter-institutional information flows.

### Additional Desirable features:

- Ability to use short term financing instruments.
- Capacity for the investment of excess cash reserves.

Adapted from Lienert 2009, Williams 2010 and Radev and Khemani 2009.

**The integration of commitment control and managing cash is important to provide smooth funding for service delivery and investments, but implementation is difficult, even in higher income countries.**<sup>2</sup> Larger economies will often mean more complex institutional arrangements, more fragmented systems, and more complex and consequential relationship with the private sector. On the other hand, challenges in low-income countries go beyond the core cash management functions and may arise from weaknesses in the “upstream” processes of budget preparation and management (Miller and Hadley, ODI 2016).

**This chapter examines cash management through budget process to summarize the overall theory of cash management and commitment control and the processes that support them.**

## 1.2 Budget Preparation

**During the preparation of the budget, a Ministry of Finance (MoF) will deploy both bottom-up and top-down approaches to arrive at a balanced annual budget that**

**reflects the government's policies and priorities.** The top-down element first establishes a macrofiscal framework (MFF) to constrain the overall medium-term budget to a size that is consistent with macrofiscal policy, revenue forecasts, and the debt strategy. This is followed by an iterative process where revenue and sectoral expenditure plans are consolidated by MDAs, and proposals are negotiated within the macrofiscal constraints. Cash plans, commitment plans, and procurement plans are then developed by MDAs to reflect when budget implementation is expected to require resources throughout the year. The borrowing plan is then developed based on the aggregate cash flow forecasts. The Aggregate Cash Plan (ACP) pulls together each of these elements into a single tool that allows decision-makers to agree on the cash management strategy for the year. The ACP is then used during budget execution to guide cash management. Each of these aspects is examined in turn in this section.

### A Robust Macrofiscal Framework

**A clear understanding of the coverage of the MFF is required to define the scope of the cash management functions and a formal identification of the cash flows that the Treasury can manage.** The MFF is multi-year and coverage must be as comprehensive as possible and may

2. Messali, evidence from cash management reform programs in Portugal, interview.



include extrabudgetary funds, development partner financing or other ‘ring-fenced’ funds or funds available to semi-autonomous government agencies depending on the legal framework employed by the country. In practice, developing and emerging economies often utilize large extra-budgetary funds and state-owned enterprises (SOEs) for investments and service delivery. Where they exist, transfers to the entity or dividend payments to the government must be considered. In addition, debt interest and principal fees are also estimated as well as any contingent liabilities such as loan guarantees and public-private-partnership contracts that may create an unanticipated call on the public funds (Cangoz and Secunho 2020).

**Realistic Revenue and expenditure projections involve models to project the baseline (no policy change scenario), building in key macro variables to estimate growth of the revenue base over time and applying it to the existing tax and expenditure policies.** With a baseline in place, scenarios reflecting new fiscal policies can be modeled to inform policy making. Complex models are not necessary and should not be attempted until countries have developed the required data and capacity. Revenue and expenditure forecasts represent the “above the line” variables in fiscal analysis and may show imbalances. In the event of a growing fiscal gap, debt service analysis allows the MoF to estimate the costs of additional borrowing and to factor this into the macrofiscal framework. To enforce realism in macrofiscal forecasts, the framework must consider both historical data and any fiscal rules or targets provided for in the legislation or policy documents. While compliance with fiscal rules is important to maintain fiscal policy objectives, historical data will reveal the realism of debt or revenue estimates to ensure that they are not over-optimistic.

**Debt financing is governed by a medium-term debt strategy that reflects government policy over the composition and risk profile of the debt portfolio.** The debt management function may be within the MoF or in an external agency, and in some cases the office may perform cash management functions. If cash and debt management functions are not integrated, close coordination is highly needed. *See Fainboim and Lienert (2018) for an overview of the macrofiscal function.*

## **A CREDIBLE BUDGET**

**A budget is a legal contract between a government and its citizens contained of two main parts: first, the intended services and investments to be delivered, and their costs; and second, arrangements for financing these expenditures through revenues and borrowing.**

To be credible, the proposals must be both appropriate – meeting national and sector strategic objectives, adherent to national law and international agreements; and achievable – target revenue collection and debt operations must be feasible and respect fiscal rules; expenditure plans must accurately reflect expenditure intentions and be limited to the resources available.

**Budgets are prepared by spending agencies, consolidated by the MoF, and appropriated by the legislature.** Several tools are available to governments to strengthen the credibility of the budget. The macrofiscal framework prepared by the MoF provides a basis for the broad medium-term fiscal policy and resource constraints faced by the government and the annual budget. It may incorporate fiscal targets, bringing rules around sustainable borrowing and the composition of expenditure between consumption and investments.

## **REVENUE**

**Accurate tax revenue projections require technical capacity to model tax policies as well as adequate data from across the economy.** The revenue authority will usually have a central role in the development of the revenue budget. Other revenue collecting agencies will also require a certain amount of capacity to project non-tax revenues. Some countries, particularly fragile states, may have a large dependence on donor grants and loans. These are usually negotiated and managed by the MoF, but in some cases MDAs may play a more significant role in negotiating loans during the budget preparation and receiving loan disbursements during budget execution. Where this is undertaken without clear communication to MoF, the ability to forecast accurately can be undermined. Aside from their significance in size, the fact that they are often difficult to accurately project makes the monitoring and forecasting of these forms of revenue extremely important. In countries that allow revenue receiving agencies to retain some or all of collected revenues, the adequate budgeting and reporting of these flows is important to enable the broader understanding of cash liquidity across agencies. A fully functional TSA will incorporate these forms of revenue.

**Technical solutions are only one element contributing to the credibility of the revenue budget.** The macrofiscal department of the MoF and revenue collecting agencies may have different incentives around collection targets and transparency of reporting that lead to significant deviations between the forecasts of each. For example, the MoF may have relatively optimistic expectations for revenue performance and expect tax administration to perform higher

than may be feasible, and the revenue authority may prefer more conservative targets that it is more likely to be able to meet. Designing incentives to forecast transparently and accurately will help to align revenue targets with achievable levels of outturn, but gaps may remain, and cash managers may wish to build scenarios into their models that demonstrate the possibility of low revenue outturn.

## **EXPENDITURE**

**Expenditure ceilings that align with the macrofiscal framework guide spending agencies on the broad limits of an agency budget, but with flexibility in the composition of that budget.** Program budgeting links policies to the budget and focuses the budget narrative and expenditure proposals on the results intended in sectoral policy. Output-based budgets present the budget in terms of the costs required to deliver specified outputs, rather than focusing on the inputs. Budget costing and a budget baseline allow spending agencies to cost expenditure required for delivering ongoing policies and the budget implications of any new policies. Clear methodologies for estimating costs enable agencies to compare and prioritize expenditure proposals. Together, these tools allow policy makers to debate the adequacy of the budget in meeting service delivery objectives as well as the efficiency of the budget allocations.

**The national public investment management framework is designed to regulate the flow of proposed investment projects into funded activities.** Alignment of the framework to the budget process and enforcement of limitations around project approvals is essential to ensure existing projects are financed to completion, and new projects are not approved without adequate resources. Where a large or unknown number of unfinished projects exist across departments, a centrally led stock taking exercise to estimate the liabilities and rationalize the capital budget by prioritizing the closure or completion of existing projects will help to reduce the build-up of arrears, open fiscal space for new projects, and make the cash requirements of the capital budget more transparent.

## **CHALLENGE FUNCTION**

**Program and output-based budgets and the budget baseline are intended to directly inform decision makers of the proposed mix of inputs and the alignment of resources to policy goals.** The value of using these tools to generate a granular and narrative driven budget is significantly reduced without a mechanism for the MoF to analyze and challenge spending agencies on the proposals. The challenge function has two aspects: compliance and policy alignment.

More developed countries will typically transition to a greater focus on policy analysis over time. To be effective, MoF will be able to do the following: say “no” to policy proposals, or be authoritative enough to influence proposals; support saying “yes” or “no” with sound analysis to explain why; and finally, to coordinate information vertically between the politicians and bureaucrats as well as horizontally across spending agencies to reduce information asymmetries and improve the transparency of spending decisions and, ultimately, the predictability of the budget (Hadley and Welham 2016). Similarly, external actors, including the legislature and audit bodies, uphold credibility of the budget by exercising their roles in the review and authorization of the budget and sanctioning any breach of budget regulations. *See Simpson and Welham (2014) for an overview of budget credibility theory and practice.*

## **An Aggregate Cash Plan (ACP)**

**An aggregate cash plan is a tool to consolidate and compare revenue and expenditure forecasts (including debt flows) with actual receipts, payments, and financing flows throughout the year.** The tool combines the budget profile with the estimated financing flows, usually monthly. The budget profile, sometimes known as an MDA cash plan, is prepared by each MDA to communicate the anticipated cash requirement for payments over the year, usually monthly and typically broken down by headline budget classification. The sum of monthly requirements must always balance with the approved annual budget. The monthly revenue estimates over the year are prepared on a similar basis by the revenue authority and any other MDAs that collect revenue, while the schedule of debt operations is prepared by the debt office. The ACP centers around a high-level report that presents the cash projections and incorporates Treasury policies around contingency, commitments, and debt. The role of the ACP is to provide policy makers a clear understanding of the cash position over the financial year. To be useful, it must be up-to-date and available to policy makers at the time of decision making.

**The first version of the ACP is developed well in advance of the budget approval and updated with approved budget figures prior to the start of the fiscal year.** The initial ACP is entirely derived from the cash and financing plans, but must be updated on a rolling basis throughout the year including both updated forecasts and the execution figures as the year progresses. There is a wide variety of data required for developing and maintaining a rolling aggregate cash plan. [Table 1](#) below gives an example of the types of forecast and execution data that are required on a regular basis and the departments responsible for providing the data.



> > >

## BOX 2 - Definitions of Cash Planning and Forecasting

**Budget Profile or MDA Cash Plan:** The agreed expenditure profile across the year, usually monthly, of the approved annual budget. The profile may be the basis for the release of spending authority and is used to monitor and control execution of the budget. The cash plan is typically prepared by MDAs to reflect their cash requirements and should be aligned with the commitment and procurement plans.

**Aggregate Cash Plan (ACP):** the planned pattern (usually monthly) of all government cash flows across the year. It aggregates the flows contained MDA cash plans and incorporates financing.

**Cash Flow Forecast:** The best estimate of cash availability update on a regular basis, ideally daily and at least weekly for the forthcoming quarter. Designed to identify what will happen, not what should happen, and needs to be an unbiased and unconstrained best estimate. The two series (ACP and forecast) will often diverge as the budget year unfolds. The cash forecast should help inform changes to the ACP.

Despite the relative complexity of the data, the ACP presentation should be as simple as possible and designed in such a way that the primary users, the MoF senior management and the cash managers, fully understand and have confidence in the presentation. Key elements of a simple, monthly cash plan include: (i) an opening balance, total revenue from tax and non-tax sources, (ii) total expenditures by major items, (iii) net cash flows before borrowing, (iv) net borrowing flows by major type, and (v) overall closing balance. Annex 3 provides a template for the cash plan and a worked example of an annual cash plan.

**Account balances are important to include in the cash plan.** The model of net flows or transactions in and out of the TSA should match the actual changes in account balances in any period and is an important way to ensure the varied data in the Aggregate Cash Plan are comprehensive and accurate. Short-term borrowing decisions should not be made based solely on the weekly net cashflow, but on the current and projected cash balances. Often figures will not balance due to lags in information or incomplete TSA arrangements, making it difficult to consolidate all transit accounts. The balancing amount is termed the “residual” or “cash-in-transit.” Change in this balance should be monitored closely and any major deviations or gradual changes over time should be investigated.

**TABLE 1 - Data Required for a Rolling Aggregate Cash Plan (adapted from Kenya ACP)**

DATA	RESPONSIBLE DEPARTMENT(S)
<b>FORECAST DATA</b>	
Planned Revenue	Budget Unit and Revenue Authority
MDA Cash Plan	Budget Unit and Spending Agencies
Domestic and External Debt Planned Principal and Interest Payments	Debt Management Office
External Debt Plan	Debt Management Office, External Resources Unit
Domestic Debt Plan and Maturity Profile	Debt Management Office
External Grants Plan	External Resources Unit
Donor Project Loans and Grants Plan	External Resources Unit
<b>EXECUTION DATA</b>	
Tax and Non-Tax Receipts	Exchequer, Revenue Authority, Revenue Collecting Agencies
Donor Project Loans and Grants Receipts	Exchequer, External Resources Unit
External Loan Receipts	Exchequer, Debt Management Office, External Resources Unit
External Grant Receipts	Exchequer, External Resources Unit
Domestic Debt Transactions	Exchequer, Debt Management Office
MDA Payments	Exchequer
MoF Direct Payments (pensions, interest payments, etc.)	Exchequer
Donor Project Loan and Grant Payments	Exchequer, External Resources Unit

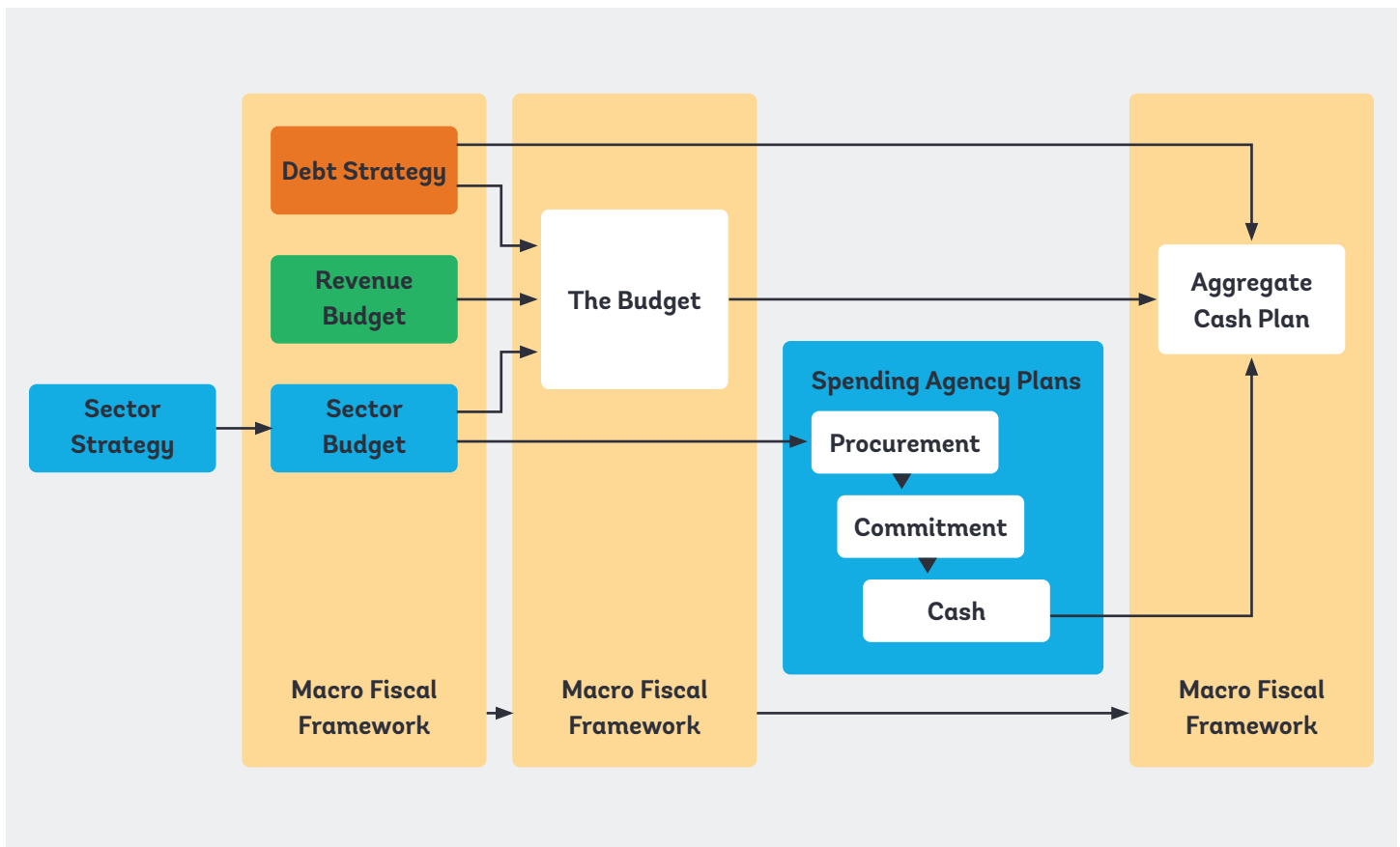
## Systems and Consistency of Information

Systems can help enable the transfer of information but will not yield a credible budget without staff capacity to understand and deliver the processes, and political will to adhere to rules. Consistency of information both in format and content throughout the budget preparation process is essential to enable the stakeholders to understand, debate, and ultimately approve and implement the proposals. Sector plans, the revenue budget, and the debt plan must align with the broader macrofiscal framework – the national budget must pull these together consistently. Procurement, commitment and cash plans must all be aligned with MDA budgets. The MoF consolidates all this information into an aggregate cash plan, and must be able to review the information and challenge spending agencies on compliance and policy alignment. See [Figure 1](#).

Data management systems are immensely important in managing information and improving compliance. An IFMIS will typically have peripheral modules for budget preparation, project management, cash planning, procurement, payments, and reporting. This system enables consistent information to be shared with stakeholders throughout the process and make data available to the various planning tools. However, a fully integrated system which performs all PFM functions within a single environment is not necessarily optimal. Departments should develop solutions that meet their business demands and capacity levels, while ensuring that functions for data sharing are central to system reforms.

> > >

**FIGURE 1 - Consistency of Information as It Progresses through Budget Preparation**



## 1.3 Budget Execution

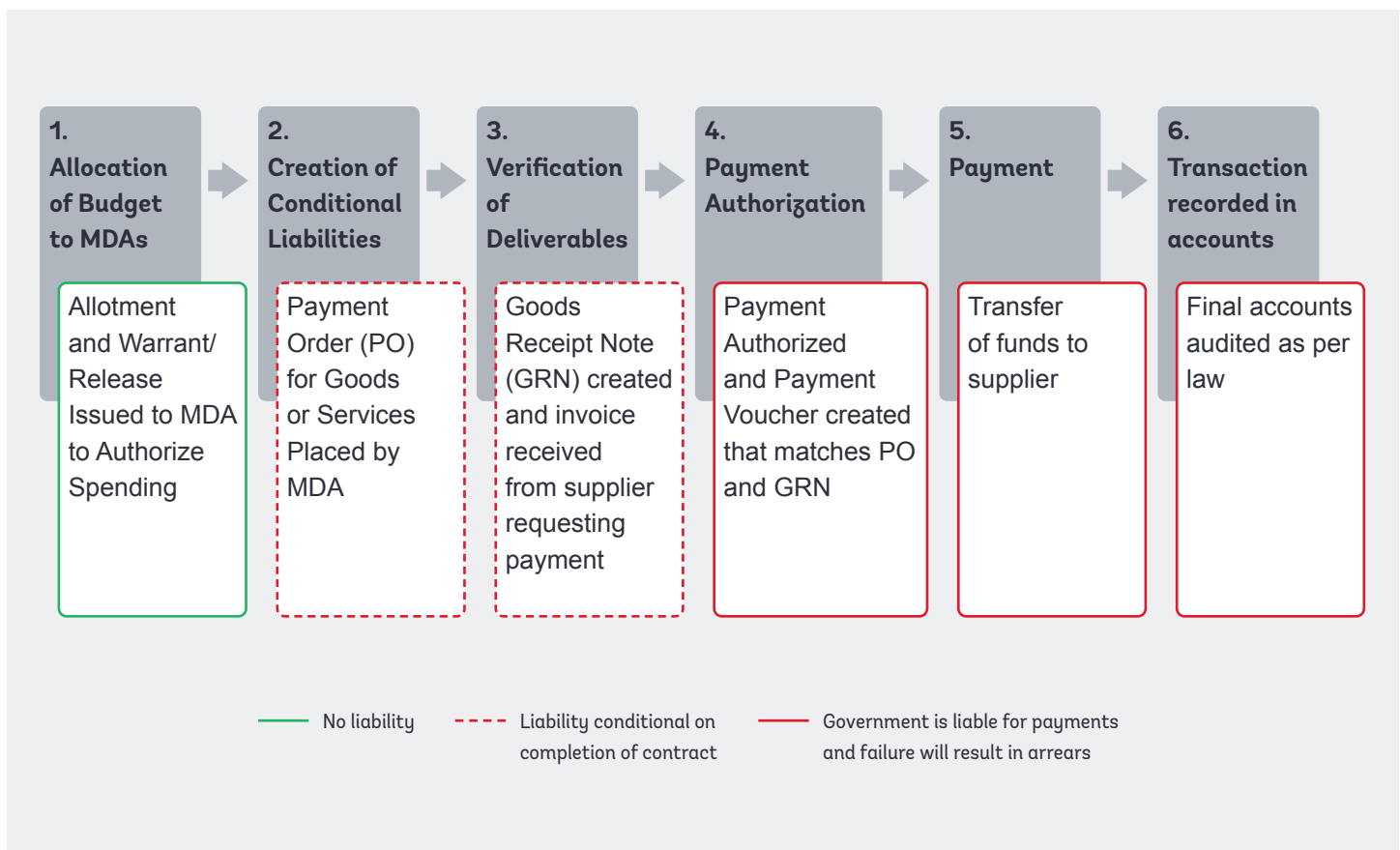
The Treasury is responsible for making funds available for budget execution and providing permission to spending agencies to spend throughout the financial year. This section covers the expenditure process, in-year cash management activities, and the maintenance of the rolling aggregate cash plan, commitment control functions and related exchequer activities.

### The Expenditure Process

The expenditure process and payment procedures vary between countries. However, the basic process involves: authorizing spending agencies to enter contracts; the procurement of goods, services or investment by the MDA; invoicing and authorization of payments; transfer of funds; accounting of transactions; and audit. The diagram in [Figure 2](#) summarizes this process.

> > >

**FIGURE 2 - Simplified Diagram of the Expenditure Process<sup>3</sup>**



Source: Adapted from Miller and Hadley 2016 and Potter and Diamond (1999).

The terminology used for describing the expenditure process from appropriation to payment is very specific and carries important implications for liability. While there is some variation from country to country, critical differences are: an Allotment – which authorizes MDA to initiate procurement; Commitment – which implies a conditional liability; and Obligation – which implies a liability that will transition to an arrear if not paid. [Box 3](#) provides a summary of key definitions in the expenditure process.

3. See Figure 5 for a detailed diagram of the commitment control process.

### BOX 3 - Definitions Relating to Expenditure Control

The terms used by governments will vary based on the legal framework employed. Some terms are used interchangeably, and, in some countries, certain terms are not relevant. For the purposes of this text, common terms used in literature and operationally are listed with alternative definitions identified where relevant. See Annex 1 for a complete Glossary.

**Appropriation** – The funds legally approved by the legislature through the budget law for expenditure by an MDA during a financial year. While an MDA may have the legal right to spend these funds in the course of the fiscal year, it may not make any commitments against the appropriation until the Treasury authorizes them to do so via an *allocation/allotment/warrant/release*.

**Allocation** – A process of distributing budget between MDAs within a fixed ceiling tied to the resources available according to the macrofiscal framework. The term may be used generally or, in some countries it carries a more formal or legal meaning related to approved distribution of budget. *Note: The term allocation or quarterly allocation is used interchangeably with the term allotment in some countries. This will make it consistent with Warrant/Release – the instrument of authority given by the Treasury to MDAs to commit and/or spend a portion of the budget (allotment).*

**Allotment – Budget allotments** refer to a portion of the budget or ‘provision’ made available for release by the Treasury to a given MDA during a given period of the financial year, often quarter. **Cash allotment** refers to a fixed amount of available cash set aside for a budget provision. Allotments are designed to both ensure cash is available for budgeted expenditure and prevent MDAs incurring expenditures beyond the available resources. The amount usually has defined sub-limits by economic item or other COA classification and is informed by MDA cash and procurement plans rather than pro-rata. In some countries the term may specifically refer to the apportionment of authorization within an MDA to spending units (Pattanayak 2016). We will use Allotment as a general term in this text.

**Warrant/Release** – The instrument of authority given by the Treasury to MDAs to commit and/or spend a portion of the budget (allotment). The officer authorized by the warrant may extend sub-warrants to units within the MDA. The use of cash releases is more common in anglophone cash-based systems and may differ from the allotment based on the availability of cash – usually to ‘trim’ non priority expenditure in the event of a cash shortfall (Lienert 2009, ODI 2016). *Note: Other variations exist in Kenya the term used is ‘authority to incur expenditure (AIE)’ and in South Asia a ‘sanction’ of payment.*

**Commitment** – A conditional obligation entered into by an MDA to make a future payment, subject to the fulfilment of pre-agreed conditions. Commitments may be for one payment or **specific commitment** (e.g. the procurement of a consignment of drugs) or a set of payments – **continuing commitments** (e.g. staff salaries). (ODI 2016, Radev and Khemani 2009).

**Disbursement** – Transfers in cash. These may not necessarily be to the final recipient or vendor, but include payments to MDA sub-accounts or commercial accounts that are intermediaries before the cash is transferred to its intended final recipient in exchange for goods or services rendered, capital investments or other government expenditure. Use of these is minimized in a TSA arrangement.

**Payment** – A transfer in cash that exits accounts under government control to the benefit of a vendor or other external party in exchange for agreed and verified goods or services rendered, investments or other government expenditure.

**(Actual) Expenditure** – Final account of spent funds after payments have been made and any surplus cash has been returned to the TSA or other government account. This is important in countries that do not operate zero-based TSA accounts and particularly in those that disburse lump-sum funds to MDA accounts at any point prior to the payment phase.

Procurement and commitment plans prepared by spending agencies are designed to provide information on when an agency anticipates placing orders for expenditures. The cash plan prepared by the MDA informs the Treasury when payments are expected (Step 5), and while connected to the commitment plan, they provide fundamentally different information.

If funds are disbursed to MDA accounts to effect payments, but these payments are not made, or only made in part, the balance is expected to be returned to the Central Treasury account. The final amount paid (disbursement minus reimbursed balance) becomes 'actual expenditure' which is presented in final accounts and audited.

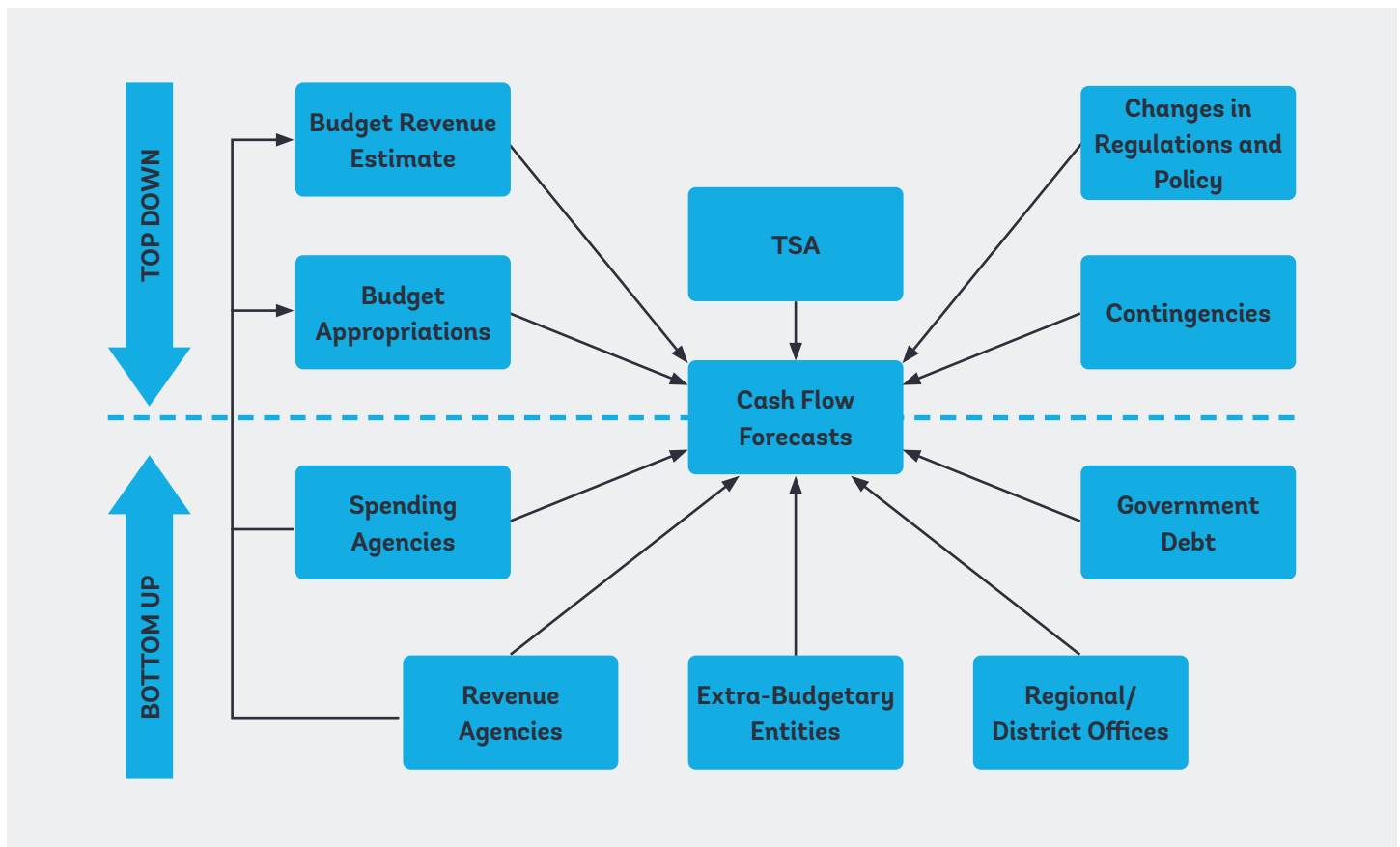
The universal use of electronic payments allows government to minimize the time between when payments are due, and payments are made and supports the Treasury Single Account structure in efficient use of funds.

### Cash Flow Forecasting

The cash forecasting framework must be comprehensive, consistent with the budget, and cover all expected inflows and outflows of cash throughout the year. To improve reliability of estimates, an effective cash forecasting model marries top-down data derived from macrofiscal forecasts, policy change assumptions, and historical data with bottom-up estimates from revenue agencies, MDAs, and the debt office.

> > >

FIGURE 3 - Cash Flow Forecasting Approaches: Top-Down vs. Bottom-Up



Source: Cangoz and Secunho (2020).

The ability to forecast revenue, expenditure, and debt daily for the forthcoming three months is ideal, though for lower income countries forecasting on a weekly basis at a minimum may be more realistic given data availability and staff capacity. A weekly public debt auction guided by an annual calendar that is updated monthly or quarterly is common in most countries. The efficiency of the auction is improved by an up-to-date cash forecast outlining financing requirements. Working towards a daily update of the cash plans, extending up to three months, should be the target as a governments cash management function strengthens.



## REVENUE FORECASTING

Revenue agencies usually operate with monthly or weekly targets agreed with the Treasury and aligned with the macrofiscal framework. As such, it can be important for the Treasury to make their own estimates of revenue to validate the revenue agency targets and challenge significant deviations. Seasonal effects on taxes are also often predictable: Pay-As-You-Earn (PAYE) taxes usually flow monthly with incomes such as the salary bill; corporate tax is due either biannually or quarterly; value-added tax (VAT) and sales tax are often highest in the period around holidays. Where possible, coordination between the Treasury, debt offices and the revenue collecting agencies on the timing of regular inflows to match regular outflows will help to maintain greater stability in cash balances.

## MDA PROCUREMENT, COMMITMENT, AND CASH PLANS

MDAs are best placed to estimate their own cash needs based on budget policy, contractual obligations, and

**operational constraints.** The MDA cash plan reflects the total cash requirements of existing and planned commitments for the MDA. Each of these plans must be updated regularly throughout the financial year. MDA cash plans must be submitted well in advance of the start of the financial year to allow the Treasury to consolidate plans for cash forecast and develop the Aggregate Cash Plan. Procurement and commitment plans must be closely aligned with the cash plan, and ideally prepared in an integrated system or similar formats. Commitments are obligations to make a future payment. Typically, a planned expenditure will become a commitment when a contract is signed. Commitments may be multiyear, so a new financial year will typically inherit numerous ongoing commitments from contracts signed in previous years, including salaries, debt obligations, multiyear projects, and maintenance contracts. Maintaining an up-to-date, accurate register of existing commitments and planned commitments that reflect the budget and procurement plan is essential for the Treasury keep track of overall obligations and to predict and control new commitments entering the system.

> > >

**FIGURE 4. Aligned Planning of Commitments and Cash**



## CONSOLIDATED EXPENDITURE FORECASTING

The government-wide cash flow plan is consolidated from cash plans prepared by MDAs (bottom-up) with guidance from the Treasury on overall monthly availability of cash (top-down). This may be an iterative process where MDAs and Treasury reach a compromise if consolidated cash plans reveal impractical or unrealistic expectations. For example, cash requirements for development spending are typically 'lumpy' and can be limited in the first months of the financial year. Guidance from the Treasury to address optimistic timing for development program payments and coordination between MDAs on sequencing payments allows for greater efficiency. It is important for the Treasury to challenge any MDA cash plans that do not acknowledge any legally binding requirements or instructions, for example the allocation of inter-governmental transfers or costs related to SOEs under their mandate.

**Cash outflow projections must identify flows through the TSA. This means that the focus is on when cash is required for transactions, rather than when it is released.**

A clear distinction between permission to spend (releases) and actual payments (transactions leaving the TSA) is important (Williams 2010). Releases may provide permission to spend over several weeks or even months, while payments usually occur on a single day. Salaries, for example, are often paid towards the end of the month, inter-governmental transfers may be “released” quarterly, but scheduled on a particular week of the quarter. Where cash availability is less reliable, MDAs may seek the transfer of cash to commercial bank accounts under their control in advance of the payment to ensure cash is available. This is considered bad practice and increases the cost of carry, creating idle balances.

**Other factors may affect expenditure forecasting that will not be reflected in MDA cash plans but can be predicted.**

For example, expectations of losing unspent balances of allocations drives a seasonality of payment requests, with relatively few at the beginning of a release period and high spending in the last month(s) (MTI 2020). Many countries experience significant seasonal limitations to operations, with weather affecting the project cycle and type or scale of operation costs. The anticipation of significant events such as elections or the likelihood of external shocks may encourage a more conservative approach to contingency arrangements, as for example the build-up of a cash buffer. Likewise, foreign aid inflows are notoriously difficult to estimate and often have significant effects on the availability of cash. One approach is to establish an allocation “buffer” – setting discounted monthly or quarterly expenditure allocation levels to withhold a portion of the overall allocation (“Month 13”) with the expectation that it may be absorbed during the year by occasional departmental overspend or emergency spending. This allows cash managers to have some leeway in volatile circumstances. However, it also may be perceived by MDAs as withholding approved funds, leaving the Treasury in a difficult position where it must decide between fiscal and political pressures.

## **DEBT FORECASTING**

**The debt plan needs to include efficient management of the existing debt stock as well as scheduling borrowing according to revenue and expenditure forecasts.** While the expected mix of debt instruments in the forecast must be aligned with the medium-term debt strategy it will also need to reflect emerging market conditions. Auctions are typically governed by an annual debt management plan and monthly/quarterly auction calendars. Synchronizing the timing of new issuance with redemption dates will allow investors to “roll

over’ into the new issue and schedule any substantial maturity dates on or shortly after days with significant anticipated inflows (Williams 2010). Many countries frontload debt issuance to develop a cash buffer and mitigate refinancing risk. It is also common to occasionally borrow in periods of positive inflows for a variety of reasons, including maintaining a low variation of auction volume, to prefinance large debt issuances or in response to liquidity in the market. Each of these will involve an increased cost of carry since interest on the cash surplus is lower than the cost of borrowing.

**Constant coordination between cash and debt managers is essential to improve efficiency of cash management and minimize unplanned borrowing.** Information on debt issuances and redemptions, both planned and actual auction performance, must be made available to cash managers as soon as it is available to enable the forecasts to reflect any changes and allow decision makers to react. Debt managers must be fully informed of any cash shortages as soon as they are known and ideally in coordination with the weekly auction to enable any emerging issues to be incorporated. To achieve this, it is common practice to establish a cash management committee for weekly coordination with a membership that includes cash and debt managers. See *Section 1.5 and particularly [Box 8](#) for an overview of coordination arrangements.*

## **In-Year Aggregate Cash Management**

**In a functioning TSA arrangement, cash managers will monitor cash balances daily to ensure accounts are swept to the central account, the surplus cash is minimized and efficiently deployed while idle.** Target weekly or daily balances are sometimes used to maintain balances estimated as sufficient to finance unexpected payments and avoid fees for delayed or overdrawn payments. Daily balances will also be used to inform and update forecasts. Where a TSA is not in full operation, monitoring daily balances of accounts that the Treasury is able to directly influence is essential, but a broader, more complex monitoring of MDA sub-accounts, transit accounts, and donor project accounts is also important to ensure cash is available to agencies to spend within the fragmented environment.

**Weekly updates of the cash forecast based on inflows and outflows from the previous week and for the near future allow short-term changes in cash needs to be identified and ideally met through adjustments to the weekly short-term debt operations.** Monthly cycles of salary, pension and interest payments will usually play a large role in the demand for cash, so within the month a significant amount of cash managers time is used to ensure these obligations are met.



**On at least a monthly basis, an MDA will update procurement, commitment, and cash plans to acknowledge past execution and reflect any adjustments to planned implementation.** The cash managers will consolidate this information and compile an updated aggregate cash plan. The monthly AGP is reviewed and signed off at senior level and provides the basis for forthcoming allocations and releases. Quarterly allocations do not entail an authorization to spend, although in practice they are often interpreted that way by spending agencies which may even consider the appropriated budget as authorization to spend. The accuracy and timeliness of the plan is therefore essential as a poor forecast, particularly an over-optimistic forecast, will lead to authorization of spending that is greater than the cash available.

**Within spending agencies, the finance unit plays several important roles.** Firstly, it is responsible for coordinating the budget, cash plans and payments for agency functions, and financial reporting. It is also directly involved in entering commitments and will hold critical information on new commitments and the commitment stock. The third key role is its responsibility to liaise with the Treasury on these issues. Regular coordination between the spending agencies and the Treasury is fundamental.

**Where idle balances are necessary or unavoidable due to mismatch between inflows and outflows, the Treasury should invest them prudently to reduce the losses caused by the cost of carry.** Idle cash balances may be temporary, caused by short term mismatches, or structural, where they are persistently in excess of requirements for cash management. Desirable investment options vary for each.<sup>4</sup> Of key importance is that the investment strategy is transparent and centralized. MDAs or autonomous agencies should not engage in unilateral investment of idle balances they control.

### **Commitment Management and Control**

**Managing commitments occurs throughout the execution process and involves tracking the stock of existing commitments, authorizing payments, and maintaining a credible schedule of expected future commitments.** Commitments can be specific, requiring a single payment, or recurring, entailing a series of payments – for example, for larger projects, salaries, utility, or rent contracts. These latter become conditional liabilities at the time of contracting and remain conditional liabilities in future periods until the contract ends. In these cases, allotments and warrants/releases allow an MDA to commit to specific payment tranches. Authorization should reflect the four main characteristics:<sup>5</sup>

4. See Fainbom, Saxena and Williams (2020).

5. See Pattanayak 2016.

- **A limit on the amount of expenditure:** The maximum amount authorized. There may be some flexibility and the nature of the limits depends on the accounting basis used.<sup>6</sup>
- **A time frame:** The period during which expenditure must occur after and which authority expires
- **A specific purpose:** Eligible uses, usually specific programs, projects, items, or grants identified in the budget and defined by the budget classification and the COA.
- **Administrative unit accountable:** An MDA or specific unit within it with an accounting officer responsible to ensure the funds are spent as intended.

**The predictability of funds to undertake service delivery activities can be achieved through adequate forecasting and end-to-end processing of procurement activities.** A typical commitment control process flow is presented in [Figure 5](#). The flow for controlling specific commitments is as follows:<sup>7</sup>

- Adequate resources are available for the appropriated budget:** Ensure the budget appropriation and MDA allocations are credible and aligned with the fiscal framework.
- MDAs are authorized to commit to contracts within forecast resource limits:** Ensure allotment and warrants/releases are consistent with the most recent cash plan.
- Reservation of budget availability at point of requisitioning: Tie budget so that allotted amount cannot be committed for other purposes.
- Commitment control at point of raising purchase order:** Ringfence funds in cash plan so that they cannot be committed or spent for other purposes. Once contracts are signed, the expenditure becomes a conditional liability and commitments must be formally registered.
- Obligations are authorized once receipt of goods/services is verified:** Certify that the supplier has fulfilled

the contract with a supporting invoice. When invoices are approved for payment, an expenditure becomes a liability that the government is obliged to honor.

- Cash management at point of making payment:** Cash is made available in TSA and transactions are recorded with automatic general ledger double-entry postings.

**Controlling continuing commitments is slightly different as the government is already conditionally obliged to make payments even before the release and subsequent payment authorization takes place.** Managing continuing commitments requires a stock of liabilities to be maintained and accurate commitment and cash plans to be available to the Treasury to ensure cash is made available. Spending agencies must update procurement and commitment plans throughout the year.

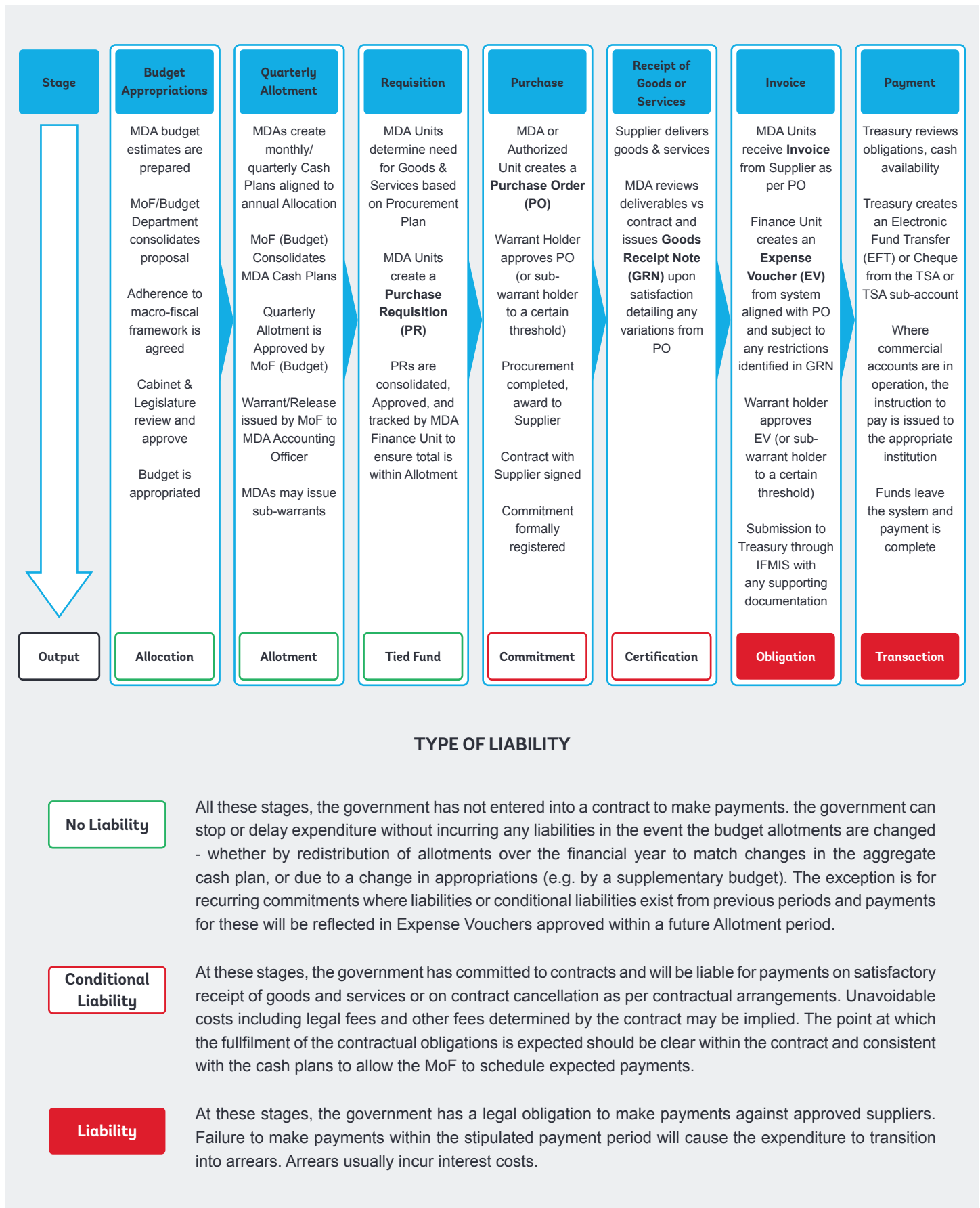
**Where commitment control is not fully functioning, the expenditure control defaults to later in the process, significantly reducing the predictability of funds and raising the risk of running out of cash.** In higher income countries the ability to make payments when they are due is often taken as a given. Where PFM systems and processes are well established, it may make sense to decentralize commitment control, allowing a commitment control officer within an MDA to manage internal commitments within the broader allotments authorized by the Treasury.<sup>8</sup> Where the commitment controls listed above are not enforced there may not be enough cash to honor the commitments. In these circumstances, the process defaults to step (vi) of the flow presented in paragraph 41, and commitment control transitions to cash rationing where the controls are made on which invoices to pay rather than which commitments to allow. Unless it is only very temporary in a moment of crisis, cash rationing typically leads to a build-up of arrears as bills remain unpaid. The validity of commitments made outside the system can be challenged by the Treasury to combat this issue. Clear communication and follow up enforcement from the Treasury that no payments will be honored unless they are put through the system will create a signal to both MDAs and contractors. World Bank programs should encourage this position.

6. See Box 4 for an overview of Cash and Accrual based accounting and variants.

7. See also Pattanayak (2016).

8. See Radev and Khemani (2009) for a review of centralized vs decentralized commitment control.

**FIGURE 5. Overview of a Typical Expenditure Control Process**



Source: Authors, with adaptations from Pattanayak 2016, Radev and Khemani 2009, and Cavanagh, Flynn, and Moretti 2016.

## Connecting Cash Management to Commitment Control

**Cash management interfaces with commitment control at three important points – when allotments are approved, when commitments are registered, and when payments are made.** Maintaining a connection between cash management and commitment control is difficult to achieve even in higher income countries. For the interface to be effective, a minimum level of technical functionality is required, but in addition, managers must actively decide to maintain and enforce procedures. In some countries, managerial decisions

and compliance may become so consistent and predictable that they effectively become functions, but this should not necessarily be taken for granted. [Table 2](#) outlines key technical functions and managerial decisions for cash management and commitment control, highlighting those that exist at the interface of the two. Without the interface between the two working effectively, it is quite feasible for both processes to be fully operational without either being able to achieve its objective.

> > >

**TABLE 2 - Functions and Decisions at the Interface of Cash Management and Commitment Control**

TECHNICAL FUNCTIONS	DECISIONS
<b>CASH MANAGEMENT</b>	
<ul style="list-style-type: none"> <li>Comprehensive cash plan and execution data is collected regularly from MDAs.</li> <li>Accurate forecasts covering relevant scenarios are prepared for managers.</li> <li>Forecasts and ACP are available at the right time to the right officers.</li> <li>TSA and account reconciliation is operational.</li> <li>Banking sector fully capable of EFTs and payments are made efficiently.</li> </ul>	<ul style="list-style-type: none"> <li>Managers actively review and approve cash plans and enable/enforce subordinates to execute follow-on decisions.</li> <li>Debt operations are responsive to changes in the cash plan.</li> <li>Accounts external to the TSA are closed, swept nightly, and idle balances are put to effective use.</li> <li>Payments are predictable and on time.</li> </ul>
<b>INTERFACE</b>	
<ul style="list-style-type: none"> <li>Timely cash plan is available to Treasury/warrant holders.</li> <li>Full record of commitments and obligations is available to cash managers.</li> </ul>	<ul style="list-style-type: none"> <li>Cash Plan/forecasts inform and are consistent with allotments, commitments, and payments.</li> <li>Payments are only made when fully completing the commitment control process.</li> </ul>
<b>COMMITMENT CONTROL</b>	
<ul style="list-style-type: none"> <li>Commitments are recorded as they are made.</li> <li>Systems can manage allotments, tied budgets and ringfenced funds.</li> <li>Records of the procurement process are maintained and available.</li> <li>Comprehensive records of existing commitments and schedule of future payment.</li> </ul>	<ul style="list-style-type: none"> <li>Treasury and MDAs fully adhere to the commitment control process.</li> <li>Compliance is enforced and deviations are sanctioned.</li> </ul>

## Managing Cash Balances Payments Processing

A key objective of cash management is to prevent holding idle cash in commercial banks while government is borrowing money through Treasury bills (T-bills). The TSA is a reform designed to leverage modern data systems to link and view all bank accounts held in central or commercial accounts and enable the management of cash reserves as a

single balance. The objective is to ensure that cash is available in full to government entities, but only when it is required for payments. Otherwise, the cash balances should be minimized, and any idle balances deployed to low-risk liquid or near-liquid activities that maximize returns. A summary of the TSA concept is provided below in [Box 4](#).

> > >

### BOX 4 - Treasury Single Account

A Treasury Single Account (TSA) is a unified structure of government bank accounts that allows the overall cash balance of the government to be known and enables the consolidation and optimal utilization of government resources. Operationally, the Treasury and spending agencies need to transact with a wide variety of vendors, payees, and payers of cash. There are advantages in using the central bank account, sub-accounts, or commercial bank accounts to handle transactions in different circumstances. Centrally held accounts avoid commercial fees and the complexities of inter-institutional data sharing but usually only have a single customer, the government. Meanwhile, commercial banks already have wide access to businesses and individuals outside government and can provide economies of scale in volume of payments and receipts as well as geographic distribution of physical locations. A TSA is designed to rationalize and link all these accounts to benefit from the comparative advantage of different accounts while not losing the advantage of oversight and management of the overall resources. Three broad principles govern the general design of a TSA:

- All government accounts should be integrated in a manner that allows the balances to be fungible and consolidated at the end of the day to record the consolidated cash position and deploy the total balance efficiently overnight.
- The TSA should have comprehensive coverage with all accounts held by budgetary and extra-budgetary integrated.
- Where local governments or government agencies have a legal mandate to maintain balances in special accounts, these accounts should always be within the oversight of the Treasury.

The purpose of these arrangements is to maximize the efficient use of cash by providing cash only when it is required, borrowing only when it is necessary, and minimizing the time taken to transfer funds between accounts. The specific arrangements will vary by country. Payments from the TSA can be handled centrally by the Treasury or delegated to MDA accounts in a more decentralized system. Zero-balance accounts in the central bank and commercial banks work by making payments up to a predefined limits on a daily basis and either being reimbursed for these payments at the end of the day, or the accounts are filled at the beginning of the day with the balance returned at the end. In some cases, payments under a certain threshold are handled by commercial accounts while larger payments are made directly from central bank accounts.

Commercial bank liquidity is connected to the structure and implementation of the TSA. Changing government deposits in commercial banks are a dominant and volatile factor affecting overall liquidity of the market. While best practice entails clearing of all balances daily, in some cases agreements with the commercial banking sector, or fragility of the sector results in the maintenance of “transit” balances in commercial banks, obscuring or limiting the function of the TSA.

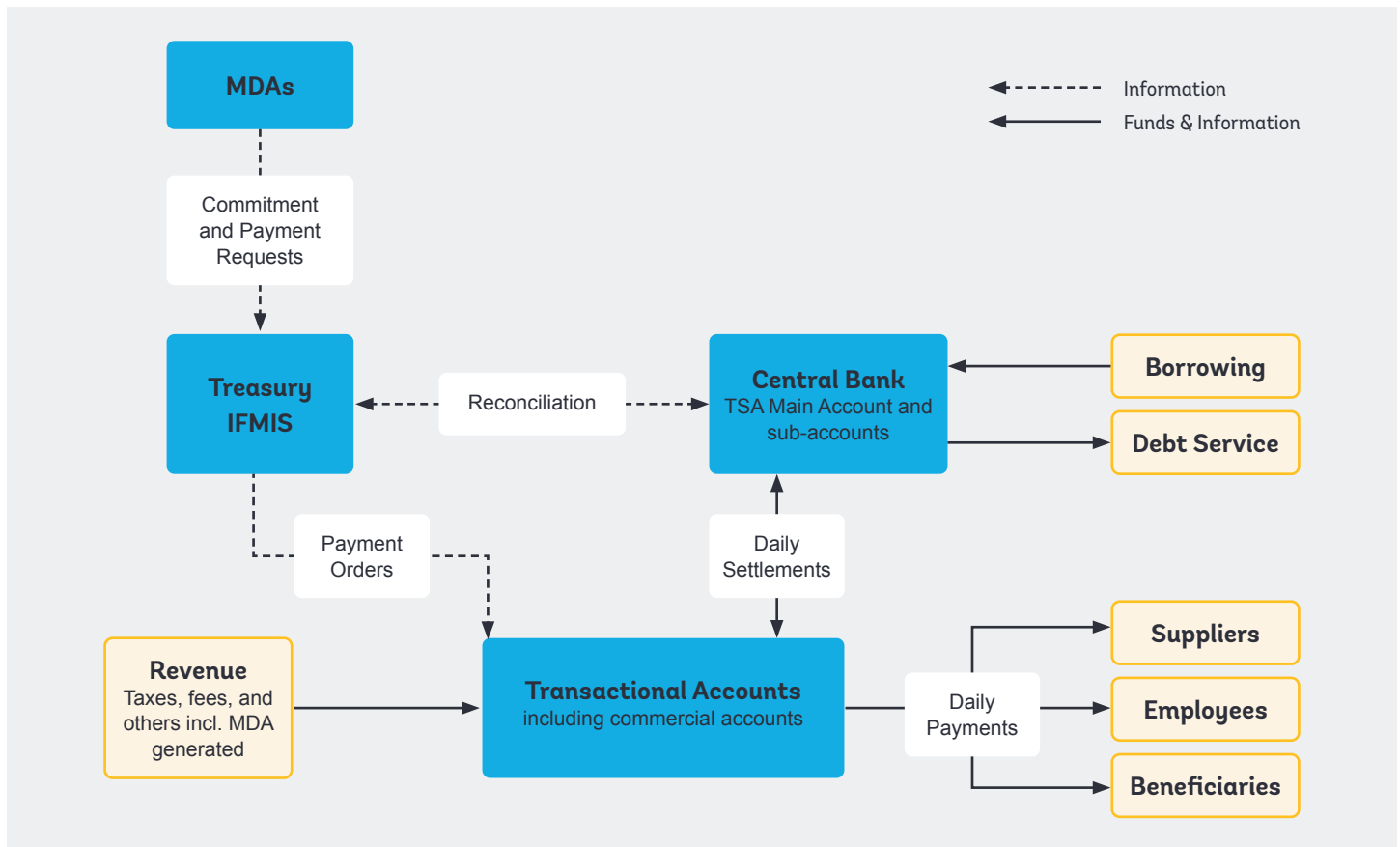
This box summarizes material in a comprehensive overview of the TSA function by Pattanayak and Fainbom (IMF-FAD) 2011.

Effective operation of a TSA can be achieved by maintaining robust controls and establishing transaction sub-TSAs for spending units with corresponding ledgers in the IFMIS. The IFMIS software that handles payments needs to be closely connected to the central bank systems (See [Figure 6](#) below) and a number of essential functions must be established:<sup>9</sup>

- The IFMIS handles, or at minimum can access all commitment and payment requests.
- The IFMIS should maintain full cash book records of the TSA sub- and transactional accounts.
- All transactions have a unique identifier to track them through the systems.
- Both the Central Bank and the IFMIS should be able to generate statements independently to allow reconciliation between Treasury systems and TSA.

> > >

**FIGURE 6 - Simplified Payments Processing System**



Where daily settlement is not possible, or the Chart of Accounts (COA) and system connections are not set up to allow daily reconciliation, the information available to the Treasury to inform commitment and payment control is weakened or simply not available.

Periodic authority to incur expenditure (warrants) can be made for the transaction sub-accounts without the need for physical movement of cash from the Central Bank to commercial banks. A Zero-Balance Account (ZBA) system can then operate whereby spending units can process payments that will be controlled and limited by the balances assigned to the transaction sub-accounts which are mirrored in the IFMIS general ledger. Payments are made by electronic funds transfer (EFT) either by the finance unit within the MDA (decentralized) or by the Treasury (centralized).

9. See Dener (2017): Toolkit for Rapid Assessment of TSA Operations.



**Autonomous bodies and self-accounting entities can operate a decentralized-TSA.** This allows them to maintain their internal procedures and processes and make payments from their bank account which is linked to the TSA for the purpose of consolidation of overnight balances. Any accounts held in commercial banks must also be linked to the TSA, and balances swept daily.

**At the close of banking operations each day, a cash balance consolidation function can be used to ascertain the closing positions in all TSA-linked sub-accounts in all banking institutions.** The balances will then all be off set within the TSA against consolidated revenue, leaving a “zero balance” for each spending unit sub-account. This process of consolidation and zero balancing on a daily basis reduces the need for borrowing and associated interest payments. The following examples show that efficiency gains through the introduction of a TSA can be substantial:

- Indonesia: Gains of approximately US\$300 million, about 4 percent of the Central Government financing costs in 2014.
- Russia: Interest gained from deposits in commercial banks of about US\$250 million in 2011.

**Advance and transit accounts are utilized in some countries, usually where a TSA is not fully operational, and especially where the availability of banking services is limited by technology or geography.** Transit accounts enable the receipt and consolidation of revenues and other income, often in commercial bank accounts that are more accessible to the public, before remitting the funds to the central bank revenue fund. In some countries, funds remain in transit for several days, in effect providing interest-free loans to the commercial banks and constraining cash management functions. Imprest (petty cash) and more general advance accounts are designed to enable a lump-sum cash transfer to MDA controlled accounts, allowing the MDA to manage cash directly and account to the Treasury for the expenditure ex-post. The arrangement is not optimal as it conflicts with the objectives of a TSA and causes idle balances to be sitting in fragmented government accounts. It also raises issues around the difference between disbursements – the amount transferred to the MDA controlled accounts, and actual payments to suppliers. The difference can be both substantial and poorly reported in some countries, impacting the transparency of budget execution.

**Where commercial banks provide transaction banking services under the TSA system, their remuneration should be negotiated competitively and transparently.** Retail banking through commercial banks is desirable in certain circumstances where they hold a comparative advantage in efficiency. However, the relationship between commercial banks and the Central Bank should be clearly defined. A framework agreement must outline relevant standards including consistent and transparent transaction fees, penalties for non-performance, reporting arrangements and bank reconciliation procedure.<sup>10</sup> Specifically, the framework agreements must seek to minimize the time which the commercial banks hold idle cash to minimize the cost of carry. Reforms to establish a framework agreement with commercial banks may encounter some resistance given that efficiency arrangements for the government will likely reduce revenues from commercial banks.

## **MANAGING LIQUIDITY AND COORDINATION BETWEEN CASH AND DEBT MANAGEMENT**

**While the cash plan identifies the borrowing requirements to maintain a smooth financing of service delivery, the debt plan identifies the mix of borrowing instruments used to implement the medium-term debt strategy and achieve the desired debt composition.** Alignment of the two is essential, both from the outset of the financial year, and throughout as the budget is executed. If forecasts of cash requirements are reliable, coordinated, and well understood by both offices, a realignment of both plans can be achieved efficiently. Where there is weak forecasting or poor coordination, urgent and unpredictable demands for cash can force inefficient debt management decisions. Alternatively, borrowing to mop up excess liquidity, or in more volatile environments to take advantage of market liquidity when it is not immediately required, can lead to large idle cash balances. Government cash flows, when not coordinated, are often a major cause of excess bank liquidity and volatility in the money markets. This complicates commercial bank liquidity management as well as undermining Central Bank monetary policy operations.<sup>11</sup>

**The initial cash and debt plans must strategically manage predictable developments, particularly the redemption schedule of existing debt and revenue and payment cycles.** Where there is adequate liquidity in the money market, bond sales can be delinked from the profile of cash flow, allowing short-term cash requirements to be handled by

10. Pattanayak and Fainboim (2011).

11. See Pessoa and Williams (2012).

T-Bills and other money market instruments. Where this is not the case, the coordination of all aspects of the debt plan with the cash plan is even more essential. In the most cash-constrained markets, debt managers may be obliged to build up reserves in auctions over multiple weeks to cover large payments.<sup>12</sup> During a crisis, the cost of short-term borrowing can grow substantially over the financial year, especially where market liquidity is low and increased borrowing requirements exert pressure on thresholds laid out in the macrofiscal framework and fiscal rules. This, in turn, exacerbates the problem by increasing the cost of debt servicing. Further detail on cash and debt management coordination is found in Williams (2010).

## 1.4 Recording and Reporting

**Clear, timely and consistent reporting is essential in the time-bound world of cash management.** The short-term data requirements of managers in multiple institutions need to be fulfilled in addition to regular consolidation of both forecast and execution data to inform decision making. This section will briefly review reporting standards, present a selection

of reporting templates that are useful for presenting data on cash management and commitment control, and discuss the systems supporting these reports.

### Accounting Procedures

**Over the past three decades, most countries have begun to shift from cash-based accounting to accrual, and most higher income countries have completed the transition.**

The basis for accounting has an impact on cash management and commitment control, and reforms towards accrual accounting are, in large part, to strengthen the information on and controls of expenditure.<sup>13</sup> [Box 5](#) below outlines the differences between cash and accrual-based accounts.

**An accrual-based accounting system is preferred as it formalizes the recording of commitments, but recording of financial liabilities is a relatively advanced feature of accrual accounting and is usually implemented in the later stages of transition from cash basis.**<sup>14</sup> Accounting and reporting systems operating on a cash basis will need to maintain a separate register of commitments. External ledgers – often in a “vote book” or “commitment ledger” – are often harder to maintain and consolidate leading to error or misuse.

> > >

#### BOX 5 - Definitions of Accounting Basis

##### Cash-Based

- Ignores liabilities until due for payment
- Ignores non-cash operations altering stock of government assets and/or liabilities
- Must be supplemented by memoranda items to reveal economic flows escaping the accounts

##### Modified Cash

- Cash based accounting systems where accounts are kept open for days or weeks at the end of the financial year to include transactions in the pipeline at year end.

##### Modified Accrual

- Not a formal definition but designates a system that is migrating from cash to accrual basis or has incorporated some accrual elements but stopped short of full accrual accounting.
- Usually incorporates features such as recording commitments before cash flow results.

##### Accrual

- All economic flows are recorded at the time economic value is created, transformed, exchanged, transferred, or extinguished
- All stocks of assets and liabilities are recorded and enhanced monitoring of liabilities and contingent liabilities
- Consolidation of accounts for all entities under government control

Sources: Cavanaugh, Flynn and Moretti 2016 and Pattanayak (n.d.).

12. An example of this is given in quarter 1 of the example Aggregate Cash Plan in Annex 3b.

13. The International Public Sector Accounting Standards (IPSAS) and the Government Finance Statistics (GFS). Manual are widely accepted accrual accounting standards and are largely compatible with each other. Most COAs will be configured to report in one or both standards.

14. Cavanaugh, Flynn and Moretti (2016).

**The Chart of Accounts (COA) is used to embed the accounting standards in the Treasury systems to allow budgets, transactions, reports, and audits to use a common framework.** It establishes a common definition of the purpose of funding and the accountable unit which can be applied to the amount and time frame, thereby establishing a transparent understanding of the four main characteristics of authorization.<sup>15</sup> The COA is typically structured by segment with specific definitions and associated codes in each segment. [Table 3](#) below describes key segments for cash management and commitment control.

**The economic item codes for deposits held at central and commercial banks can be used for consolidation of cash balances, including for special purpose and donor-funds to prepare consolidated financial statements for all controlled entities.** It also allows the government to record all

transactions and capture relevant information independently of the cash flows in specific bank accounts. This is important because it allows the Treasury to record distinctive information linked to ledger accounts to track and control appropriations and allotments.<sup>16</sup> An example of this coding structure is provided in Annex 4a.

**The source of fund segment of the COA with dimensions for fund component agreements is useful for ring-fencing and monitoring special purpose funds, intergovernmental grants and donor-funds that normally do not allow for commingling.** This is important so that specific source and use of funds reports can be produced to meet specific reporting requirements including by disbursement categories. A specific use case in Kenya is described in [Box 11](#) in the next chapter, and Annex 4b presents an example of funds identified in the fund segment in the COA of the Government of Bangladesh.

> > >

**TABLE 3 - Key Segments of a Chart of Accounts**

ECONOMIC ITEM	ADMINISTRATIVE	PROGRAM	SOURCE OF FUNDS
<p><b>Flows</b></p> <ul style="list-style-type: none"> <li>• Government Revenues.</li> <li>• Government Expenses.</li> <li>• Acquisition and sale of non-financial assets.</li> <li>• Transactions in financial assets and liabilities including incurrence and repayment of debt.</li> </ul> <p><b>Stocks</b></p> <ul style="list-style-type: none"> <li>• Stock of fixed assets, inventories, land, intangible assets.</li> <li>• Bank account balances including broad alignment to TSA accounts including special purpose accounts.</li> <li>• Other financial assets including investments and accounts receivable.</li> <li>• Stock of Liabilities in borrowing instruments and overdraft; volume and age of arrears.</li> </ul>	<ul style="list-style-type: none"> <li>• Aligned to administrative hierarchy in each MDA</li> <li>• Linked to the definitions relevant for allotments and warrants.</li> </ul>	<ul style="list-style-type: none"> <li>• Sector Policies financed through ongoing spending programs.</li> <li>• Sector projects defined by time-bound investments that often yield a new government asset.</li> <li>• While focused on domestic functions, it may be configured to enable functional reporting in the internationally comparable COFOG standard.</li> </ul>	<ul style="list-style-type: none"> <li>• Designation of the origin of the transaction, including donors and special purpose funds which are 'ring fenced.'</li> </ul>

Sources: Adapted from draft SCOA Manual (Kenya 2020) and IMF 2014 GFS Manual.

15. See previous section on Commitment Management and Control.

16. See Pattanayak and Fainbom 2011.

**Government priorities may not always be definable by the strict structure of the COA.** In times of crisis, rapid selection of portions of the budget to protect and portions to cut may be necessary. This analysis must then be reflected in revised allotments and thereby adjust control of commitments. This may be straightforward in the case of identifying salaries, debt payments, or other line items that are identified universally across all MDAs. Protecting priority service delivery expenditures may be more difficult as they typically will require a mix of line items and are implemented by multiple MDAs. To address this, the COA segments

can be used in combination to preselect or 'tag' important expenditure items across government. The IFMIS software or integrated modules can manage this information derived from the COA and make it available to Treasury and commitment control managers to inform allotments, commitments, and payments. This connected reporting structure does not need to be limited to commitment control and can be used to define reports on any government-wide reporting – for example, tracking expenditures related to climate change or other major government initiatives. An example of using the COA for prioritizing expenditure in practice is presented in [Box 6](#) below.

> > >

### **BOX 6 - Categorizing Priorities in Expenditure using the COA in Kenya**

The Government of Kenya Cash Management Framework requires all expenditures to be categorized in the following four categories:

**Category 1:** Expenditures which represent statutory obligations, including debt outflows, salaries, pensions, and county equitable share transfers.

**Category 2:** Expenditures comprised of major social, economic, accountability, governance, and security programs.

**Category 3:** All other Government of Kenya financed expenditures not in Category 1 or 2.

**Category 4:** Expenditures comprised of externally funded projects categorized as revenue in the budget and for which funds are transferred via the exchequer.

Cash is rationalized and allocated based on expenditure categorization provided for in the cash management framework. The broad definition of Category 2 expenditures was agreed with MDAs and based around negotiated agreements with budget support donors. The specific definitions were defined within the COA program and item segments using the Hyperion software and a background mapping table. When preparing budgets, MDA officials do not have to specifically identify the category of expenditure because it is automatically generated from the combination of COA codes and mapping tables. Likewise, when a requisition or payment voucher is submitted, the design allows Treasury officers to identify the category of the request and to prioritize accordingly. For this to work, requisitions and vouchers must contain relevant COA codes allowing the system to identify the correct category.

*Sources:* Interviews with L. Matheka and D. Nzioki, World Bank, Nairobi.

## **Structuring Reports for Managing Commitments and Cash**

**In-year cash management requires scenario planning for possible eventualities.** What is important and the options available will differ from country to country. However, the fundamental information required for cash management decision-makers revolves around a simple presentation of projected cash availability beyond the legal overdraft limit given no change in policy. Modeling of available policy scenarios informs cash managers of options for possible policy change. The following page presents a simplified template for a cash projection dashboard with policy options. Annex 5 contains an example of an actual table used in Sierra Leone. Non-discretionary expenditure can include debt servicing, pension, salaries, and in some instances security sector spending. The categorization of priority expenditure in Kenya ([Box 6](#)) can be adapted in the illustration in Figure 7.

**FIGURE 7 - Illustration of a Simple Weekly Cash Projection Dashboard with Policy Options**

**FORECAST**

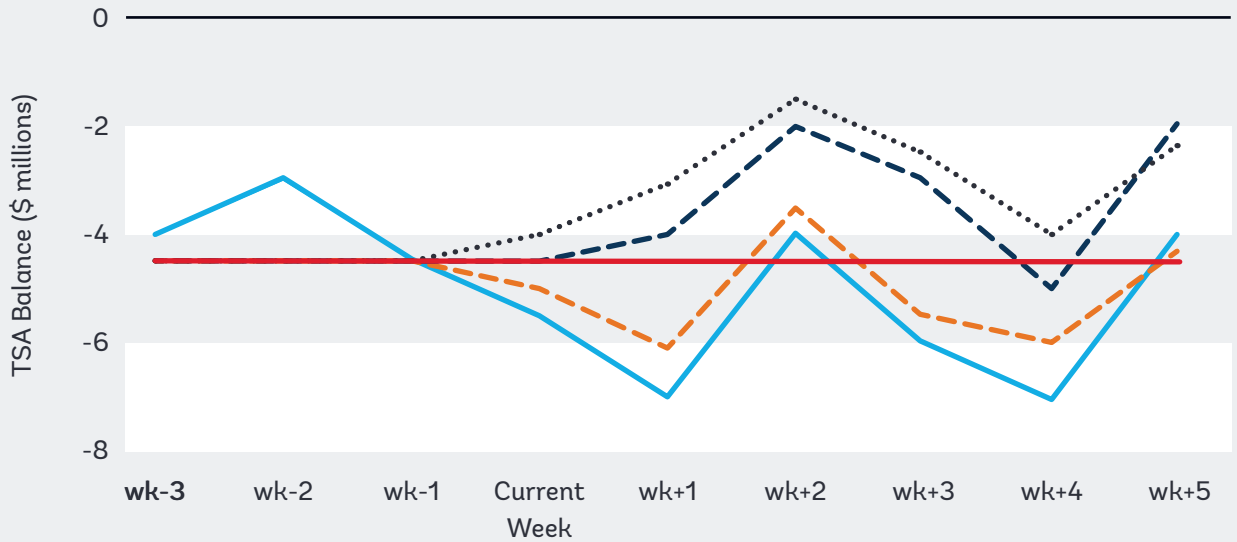
	Actual Outturn			Estimate	Projections			
	wk-3	wk-2	wk-1	This week	wk+1	wk+2	...	wk+12
<b>Opening Cash Balance</b>				<b>A</b>				
Revenue				B				
Expenditure (non-discretionary)				C				
Expenditure (discretionary)				D				
<b>Budget Balance</b>				<b>E=B-C-D</b>				
External Financing				F				
Domestic Financing (including T-Bills)				G				
<b>Implied Closing Balance</b>				<b>H=E+F+G</b>				

**Overdraft Limit** Legal limit of Central Bank Overdraft facility

**SCENARIOS**

i. Adjust T-Bills				H+/-?				
ii. Cut Discretionary				H+D				
iii. Cut Discretionary and Adjust T-Bills				H+D+/-?				

**IMPLICATION OF POLICY OPTIONS**



△ T-Bills	wk-3	wk-2	wk-1	Current	wk+1	wk+2	wk+3	wk+4	wk+5
	-	-	-	+0.5	+0.9	+0.5	+0.5	+1	+0.3

- - - i. Adjusted T-Bills   
 - - - ii. Cut discretionary   
 ..... iii. Cut discretionary and adjust T-Bills  
— No policy change   
 — Overdraft limit

Source: Adapted from Sierra Leone Cash forecasting tool, any data is purely illustrative.

During the execution phase, budget performance reports must include information on existing commitments and obligations to decision-makers at both the commitment and obligation steps. An example is shown below in Table 4 where headline economic items are listed by MDA and key data on performance is shown across the columns. In some

cases, the Treasury may want to track information on a group of priority expenditures, in which case a combination of COA codes can be used for a customized report if the codes are applied to expenditures and accessible in the system at all stages from budgeting through commitment to payment.<sup>17</sup>

> > >

TABLE 4 - Sample Budget Utilization Report with Outstanding Commitments and Obligations

GOVERNMENT OF ABCDE BUDGET EXECUTION REPORT (BER) AS AT ..... ORGANIZATION/NATURE OF EXPENSES										
CoA SEGMENTS/ DIMENSIONS	A	B	C	D=A+B+C	E	F	G	H=A-(E+F+G)	I=B+C-E-F-G	J=E/A
APPROVED BUDGET	VIREMENT/ SUPPLEMENTARY	RELEASE	UN- RELEASED BUDGET	ACTUAL TO DATE	COMMIT- MENTS	OBLIGA- TIONS	AVAILABLE BUDGET	AVAILABLE RELEASE	PERFOR- MANCE RATE (%)	
<b>MINISTRY 1</b>	<b>70,000,000</b>	<b>2,500,000</b>	<b>40,000,000</b>	<b>112,500,000</b>	<b>27,500,000</b>	<b>7,000,000</b>	<b>3,000,000</b>	<b>32,500,000</b>	<b>2,500,000</b>	<b>39%</b>
Compensation of employees	5,000,000	–	5,000,000	10,000,000	5,000,000	–	–	–	–	100%
Use of goods and services	–	–	–	–	–	–	–	–	–	–
Consumption of fixed capital	10,000,000	(1,000,000)	5,000,000	14,000,000	2,000,000	–	2,750,000	5,250,000	250,000	20%
Interest	10,000,000	1,000,000	5,000,000	16,000,000	3,000,000	–	–	7,000,000	2,000,000	30%
Subsidies	35,000,000	–	20,000,000	55,000,000	15,000,000	5,000,000	–	15,000,000	–	43%
Grants	5,000,000	–	–	5,000,000	–	–	–	5,000,000	–	0%
Social Benefits	5,000,000	2,500,000	5,000,000	12,500,000	2,500,000	2,000,000	250,000	250,000	250,000	50%
Other Expenses										
<b>MINISTRY 2</b>	<b>30,000,000</b>	<b>10,000,000</b>	<b>20,000,000</b>	<b>60,000,000</b>	<b>5,000,000</b>	<b>5,000,000</b>	<b>2,000,000</b>	<b>18,000,000</b>	<b>8,000,000</b>	<b>17%</b>
Compensation of employees	15,000,000	–	10,000,000	25,000,000	2,000,000	2,500,000	1,000,000	9,500,000	4,500,000	13%
Use of goods and services	–	10,000,000	–	10,000,000	–	–	–	–	–	–
Consumption of fixed capital	7,500,000	–	5,000,000	12,500,000	2,500,000	–	–	5,000,000	2,500,000	33%
Interest	4,000,000	–	2,000,000	6,000,000	–	1,000,000	–	3,000,000	1,000,000	0%
Subsidies	2,500,000	–	2,000,000	4,500,000	–	1,000,000	1,000,000	500,000	–	0%
Grants	1,000,000	–	1,000,000	2,000,000	500,000	500,000	–	–	–	50%
Social Benefits	–	–	–	–	–	–	–	–	–	–
Other Expenses	–	–	–	–	–	–	–	–	–	–
<b>TOTALS</b>	<b>100,000,000</b>	<b>12,500,000</b>	<b>60,000,000</b>	<b>172,500,000</b>	<b>32,500,000</b>	<b>12,000,000</b>	<b>5,000,000</b>	<b>50,500,000</b>	<b>10,500,000</b>	<b>33%</b>

*[insert print date/time stamp] - This report can be designed to present information in aggregate OR detailed by the various CoA segments/dimensions*

17. See Box 5 for an example of this reform in Kenya.

**In countries with weaker reporting systems, key data may not be readily available—see columns F and G in Table 4).** As a result, the Treasury will have to default to managing execution based on the unreleased budget (column D). Where the budget or releases (allotments) are either overly optimistic, or poorly reflect an MDA cash requirement, this tool will also be inadequate for controlling expenditure. In the most extreme cases where none of the data on controls is reliable – releases are mismatched and/or systematically higher than available resources – commitments are not recorded, and payment obligations may emerge at the last minute. Managers will then be forced to ration cash and revert to bank statements for clarity on available resources. Cash rationing involves controlling entirely at the payment stage, approving payments based on cash balances available on the day. This is inadequate for managing commitments and, therefore, it is not possible for the Treasury to limit the gap between obligations and resources, ultimately resulting in delays to payment and arrears.

## 1.5 Institutional Arrangements and Coordination

**By design, the institutions that collect, spend, hold, and authorize public money are usually deliberately given a level of independence.** The legal framework governing the establishment of and relationships between these institutions is highly relevant to their overall functionality as a system and suitability for efficient delivery of services. How well the

institutions communicate and share information within this system is more complex—opaque incentive structures, the value of personal relationships, and change management to support dynamic reform processes all play a part.

### Legal Framework

**The PFM Act or equivalent law sets in place the key institutional roles and responsibilities for making and controlling expenditure, supported by regulations, policies, and guidelines.** While the overall authorization of the budget through the appropriation process is typically central to any PFM Act, the authority of the Treasury to manage this authorization during the year by means of allotments and commitment control is not always as well established or understood. A recent study found that cash management is usually a function of the Treasury and very often integrated with the debt function, but no specific solution fits all countries. The study concludes that the essential factor is not the specific location of the function, but a clear definition of responsibilities and workflows between entities and adequate capacity in the relevant units.

**The Kenyan PFM Act and associated legislation provides a good example of the identification of essential cash management functions (See [Figure 8](#)).** A key component of the law is the provision to establish a cash management framework to govern the function. [Box 7](#) provides a summary of institutional coordination in Kenya and Annex 6 presents excerpts from the frameworks for institutional coordination in Kenya and Pakistan.

> > >

#### BOX 7 - Institutional Coordination and Oversight in Kenya

Kenya developed and approved a cash management framework in January 2020. The framework recognizes the dynamic public finance management environment and so is subject to periodic reviews, as necessary. It borrows from international good practice on principles and sets out benchmarks for continuous improvement towards realization of cash management objectives. Fundamentally, it serves to provide a mandate for coordination between departments.

The coordination and oversight structure set out in the Cash Management Framework brings together the National Treasury, Kenya Revenue Authority, Controller of Budget (CoB) and the Central Bank of Kenya (CBK), each represented in the Cash Management Technical Committee (CMTc). On the demand side, the national MDAs, Semi-Autonomous Government Agencies (SAGAs) funded through exchequer, and subnational governments are central stakeholders. The Cash Management Unit (CMU) is the central coordinating body that brings together the Cash Management Advisory Committee (CMAC) and CMTc. The CMAC is composed of senior management and is responsible for decision making and providing strategic direction on cash management, while the CMTc is responsible for the day-to-day management activities and supports the CMAC in executing its mandate and functions. The MDAs, SAGAs and sub-nationals are

charged with day-to-day responsibilities in ensuring that annual workplans, budgets, procurement plans, operational plans and cash plans are required to be updated on a monthly basis. The monthly revisions are updated through the budgeting Hyperion cash planning tools currently being integrated with the IFMIS General Ledger to facilitate real-time budget execution fiscal reporting.

Source: Interviews with WB Governance Team, Kenya.

> > >

**FIGURE 8 - Excerpts from Kenyan Legislation and Regulation on Cash Management**





## Information Exchange between Departments

**Legal provision for coordination supports but does not guarantee optimal information exchange between departments.** With the mandate given by a framework or similar policy, technical staff must establish formal and informal lines of communication between departments that enable regular information-sharing, as shown below in Figure 5. To clarify the services provided by the central bank and any commercial banks, it is good practice to use a “service

level agreement”<sup>18</sup> which specifies: (a) delegated roles and arrangement for mutual information sharing and notice periods for any changes to schedules; (b) turnaround times for transactions and any penalties for missing stipulated limits; (c) clear remuneration framework for central and commercial banking services; (d) framework for interest payments on government securities; and (e) business continuity handling.

> > >

**TABLE 5 - Formal and Informal Information Flows**

FORMAL INFORMATION FLOWS	INFORMAL INFORMATION FLOWS
<b>DAILY/WEEKLY UPDATES ON TRANSACTION DATA</b>	
<ul style="list-style-type: none"> <li>• Payment and commitment requests from MDAs submitted to Treasury.</li> <li>• Payment orders submitted to Central bank and/or commercial banks.</li> <li>• All transactions recorded through IFMIS daily</li> <li>• Revenue receipts cleared from transaction account and recorded in IFMIS daily.</li> <li>• Consolidated bank statements available from Central Bank and reconciled with IFMIS.</li> </ul>	<ul style="list-style-type: none"> <li>• Treasury notified of anticipated delays or changes to cash requirements/receipts.</li> <li>• MDAs are given ample warning if there is likely to be any cash shortfall that may affect payments.</li> </ul>
<b>WEEKLY UPDATES ON CASH PROJECTIONS</b>	
<ul style="list-style-type: none"> <li>• Budget unit coordinates and shares information on revenue and budget projections, any changes, and any prioritization in the event of cash shortages.</li> <li>• Cash management unit prepares cash projections, including debt data, and informs senior managers for any decisions or authorizations; and informs wider group of any changes.</li> </ul>	<ul style="list-style-type: none"> <li>• Confirmation of any major upcoming payments between Budget unit, MDAs, and Treasury.</li> <li>• Macroeconomic unit engaged well in advance in any discussions impacting macrofiscal framework.</li> </ul>
<b>DEBT MANAGEMENT FOR SHORT-TERM BORROWING</b>	
<ul style="list-style-type: none"> <li>• Debt managers are instructed on short-term cash requirements to inform T-Bills operations.</li> <li>• Treasury is informed of borrowing transactions and recorded in IFMIS.</li> <li>• Any adjustments to the interest obligations created by the borrowing transactions are recorded through the accounting system (accrual) or connected register.</li> </ul>	<ul style="list-style-type: none"> <li>• Central Bank and Treasury/debt office are in constant contact regarding market liquidity and possible changes to short-term debt requirements.</li> <li>• Central Bank and debt office are in close contact with Treasury on any major loans or grants being negotiated, especially through development partners.</li> <li>• Macroeconomic unit participates in any discussions that may impact the macrofiscal framework.</li> </ul>

18. See Lienert 2009.

**Formal flows of information include instructions, compliance, and operational data while informal flow will typically involve anticipating issues before they emerge formally and ensuring that formal information has been well received, understood, and acted upon.** Below are examples of information flows for managing transactions,

short term borrowing and preparing weekly cash projections. Managing these responsibilities requires both high-level policy engagement and extensive coordination between technical staff. [Box 8](#) below shows an example of the institutional structure of a cash management function.



> > >

### **BOX 8 - What Does a Cash Management Function Look Like?**

The location and structure of a cash management committee may vary significantly, but two primary aspects of the function are the technical team that collects and prepares data and the senior committee that approves plans and makes any decisions necessary. This box provides an example of the skills and structure required for the function adapted from the Kenyan Cash Management Framework.

#### **Cash Management Committee**

**Function:** Monitor fiscal projections and performance, ensure cash plan is consistent with macrofiscal plan, approve annual and monthly cash plan, and authorize in-year cash allocations.

**Membership:** Senior civil servants of the Treasury, cash managers and macrofiscal, budget, accounts, debt offices. The Central Bank may also have a presence.

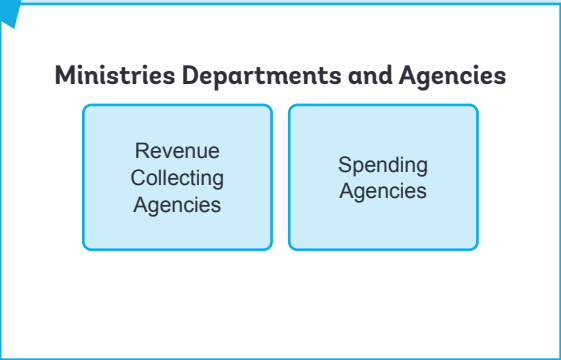
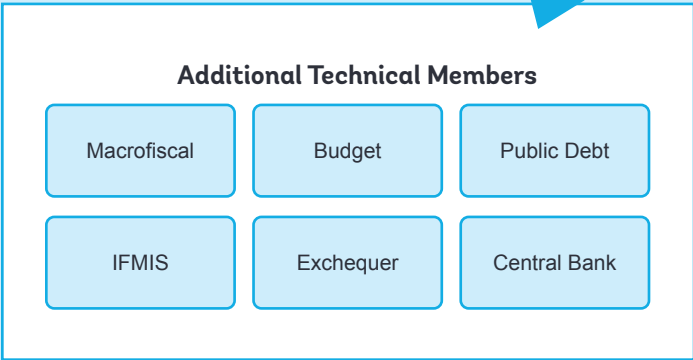
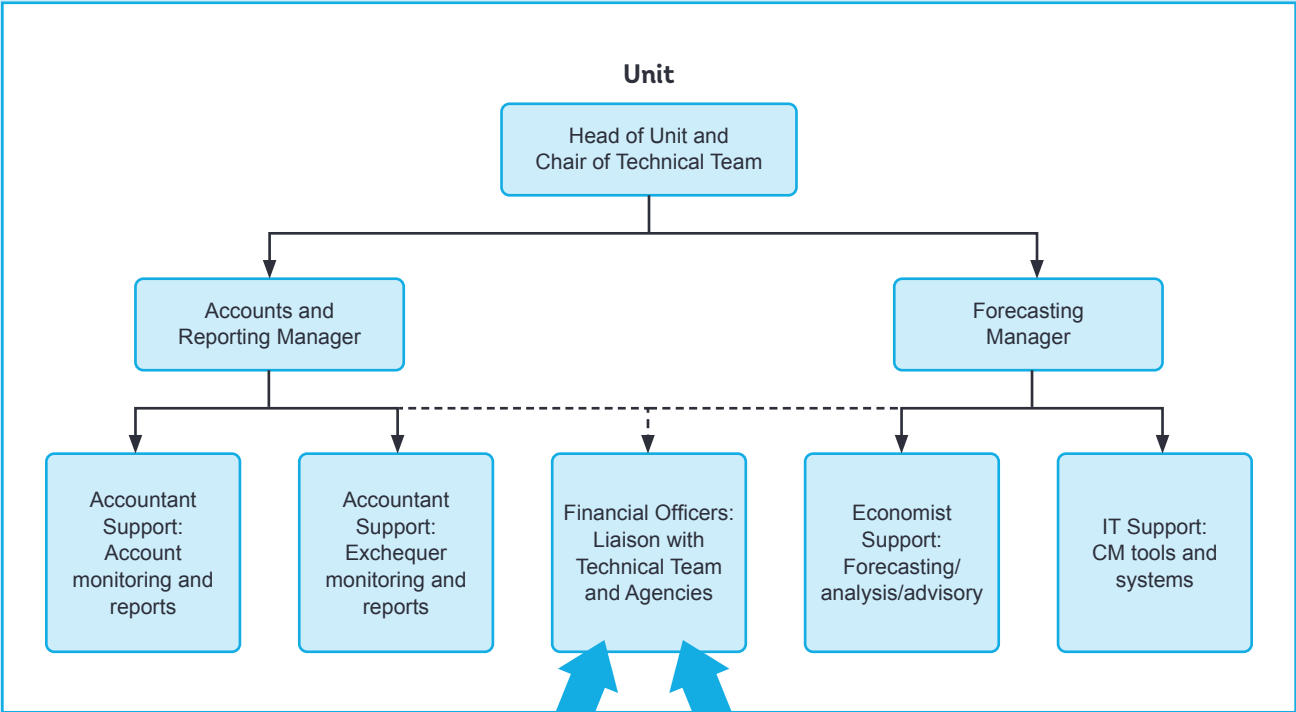
#### **Cash Management Technical Team**

**Function:** Monitoring TSA (central bank and connected commercial banks) and reconciling daily balances; monitoring borrowing schedule, overdraft facility and debt operations; implement the decisions of the Committee on cash allocations, monitoring exchequer requests and alignment with allocations; advise and monitor adherence to fiscal framework; maintain CM software and databases, prepare forecasts, analysis of revenue and expenditure and forecast reports; liaison with spending and revenue collection agencies; provide training to spending agencies in CM functions.

**Membership:** Representatives from budget, exchequer, IFMIS, macrofiscal, and debt departments; Unit of technical staff including accountants and economists with capabilities covering accounts management, report preparation, data collection and management interdepartmental liaison; forecasting and analysis officers.

**Structure:** An example of the structure of a Cash Management Technical Team is shown below.

18. See Lienert 2009.





## Mapping Out the System and Identifying Bottlenecks and Underlying Causes

To frame the reasons for poor outcomes in cash management and commitment control, one must consider three buckets: Planning and forecasting, commitment controls and banking arrangements, and eight common problems that affect outcomes in these buckets. To lay the foundation, an analysis of Public Expenditure and Financial Accountability (PEFA) scores is used to examine existing practices in Section 2.1. This helps to inform the set of eight problems, briefly introduced in [Box 9](#), below. In Section 2.2, the eight problems, their underlying causes, and the possible effects of each problem are summarized in the context of each bucket. Section 2.3 reviews each problem in detail, using country examples to understand causes and effects.

## BOX 9 - Summary of Eight Problems Affecting Cash Management and Commitment Control

Eight common problems that may affect any of the buckets are used to guide the discussion. They are not necessarily comprehensive but are chosen to help to frame the discussion. Each of the problems may affect any of the buckets and the intention of this framework is to consider the interconnections between capacity, systems, legal frameworks and collective action problems on the outcomes in cash management and commitment control.

1. **Over-optimistic Revenue Projections** – Where the revenue estimates guiding the macrofiscal frame and the approved budget are unlikely to be realized and the financing of the budget is likely to be compromised.
2. **Unrealistic Expenditure** – Where the budget is not executed as planned and either the composition of the budget, aggregate execution or both deviate from the approved budget.
3. **In-year Mismatch Between Inflows and Outflows** – Where the profile of cash requirements is not matched by cash availability and either unplanned debt or adjustments to budget implementation are necessary.
4. **Ad hoc or reactive debt decisions** – Where decisions on debt financing are excessively driven by in-year pressures with limited prior planning, leading to inefficient borrowing.
5. **Commitments made beyond available cash** – Where the obligations entered into by government are not constrained by the cash plan, cash availability falls short of the cash plan, or a combination of both leading to payments being deferred or short-term unplanned borrowing.
6. **Short-term/centralized decisions about what gets paid** – Where commitment control is weak or non-existent and the senior management of the Treasury makes weekly or even daily decisions about which invoices to pay and which to defer.
7. **Lack of transparency in banking arrangements** – Where a TSA and associated reporting on all government accounts is weak or non-existent and the Treasury is unable to access or manage cash balances comprehensively.
8. **Weak institutions and collective action problems** – Where cooperation and information sharing between institutions is inadequate to perform cash management and commitment control functions.

## 2.1 Mapping Out Existing Practices

**Predictability of funding and the management of available resources to maximize their efficient use are the essential outcomes of cash management to support service delivery and infrastructure development.** These outcomes are elusive in most lower income countries and, to address them, it is essential to understand what capacity issues, system failures or collective action problems may be contributing to the problem. PEFA assessments undertaken between 2016 and 2019 from 47 countries reveal the following general messages:

- Over two-thirds of these countries report relatively strong predictability of resources (PI-20) and expenditure control processes (PI-25). Outcomes in terms of arrears (PI-22) and budget composition (PI-2) show a reverse trend with two-thirds of countries reporting relatively weak scores (See [Figure 9](#)).
- Weaker expenditure control (PI-25) is more closely associated with budget composition (PI-2) than it is with overall budget deviation (PI-1). (See [Figure 10](#)).<sup>19</sup>

19. Pattanayak (2016) found the relationship between weak expenditure control and higher budget deviation to be much stronger in a comparison of 85 PEFA's from 2006-2014.

- Weak expenditure control (PI-25) and resource predictability (PI-21) indicators both have a relatively strong association with larger arrears (PI-22). (See [Figure 11](#)).
- Within the resource predictability dimension, information on commitment ceilings (PI-21.3) has a much closer association with the size of arrears (PI-22.1).
- Cash forecasting capacity (PI-21.2) has little correlation with the size of arrears (PI-22.1) but has a relatively strong association with deviations in budget composition (PI-2).

The relationship between the availability of information on commitment ceilings (PI-23.3) has a more consistent positive correlation with both the size of arrears and deviations in budget compositions.

- A deeper examination of case study countries and regional variations (Annex 7) suggests that achieving mid-level scores in cash forecasting and segregation of duties is relatively easy, but improvements in arrears and budget composition tend to happen only when information on commitments, commitment control effectiveness and payments compliance is improved.

> > >

**FIGURE 9 - PEFA Scores of 46 Countries (PI-21, PI-25, PI-22 and PI-2)**

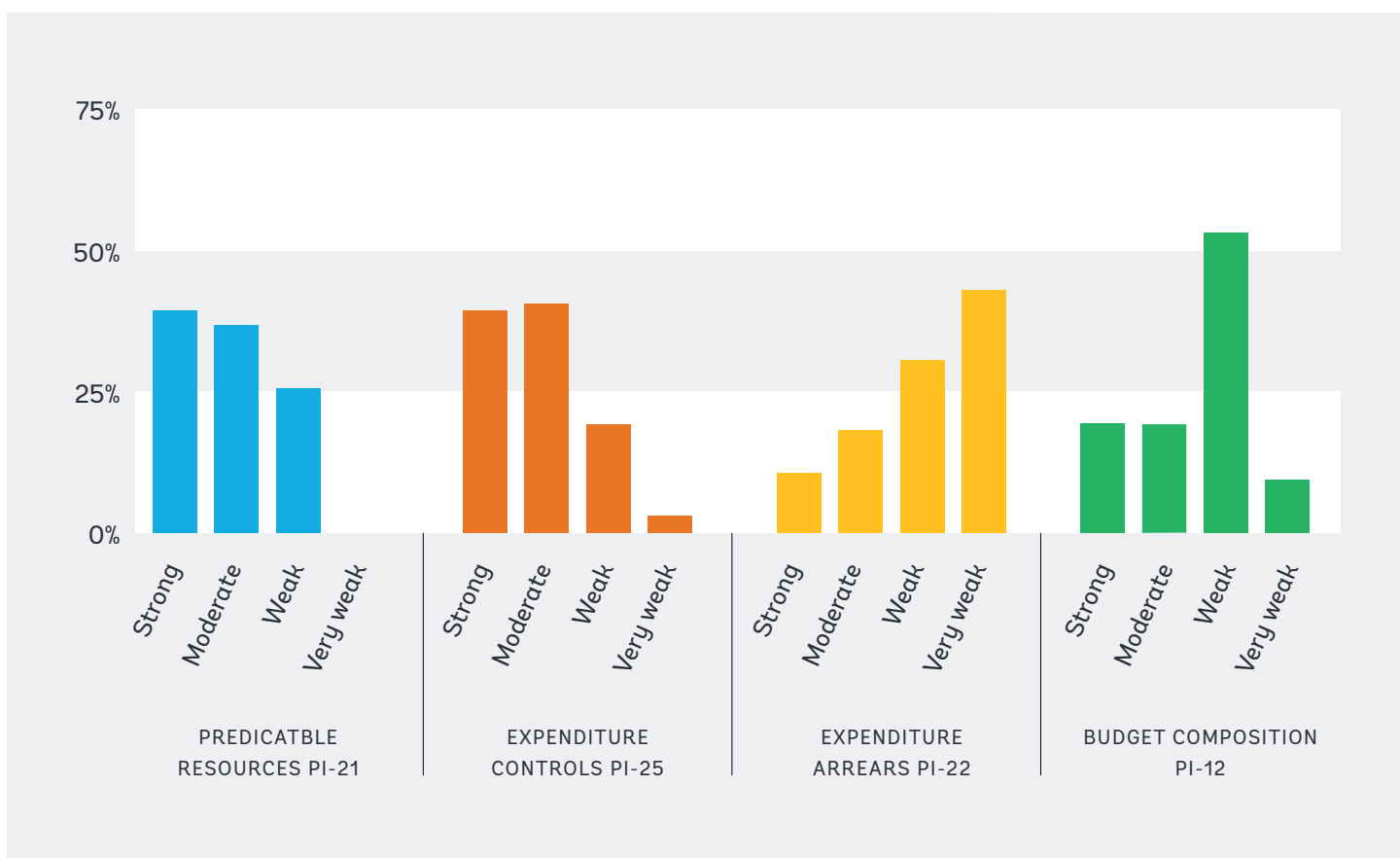


FIGURE 10 - PEFA Scores: Expenditure Control and Budget Credibility

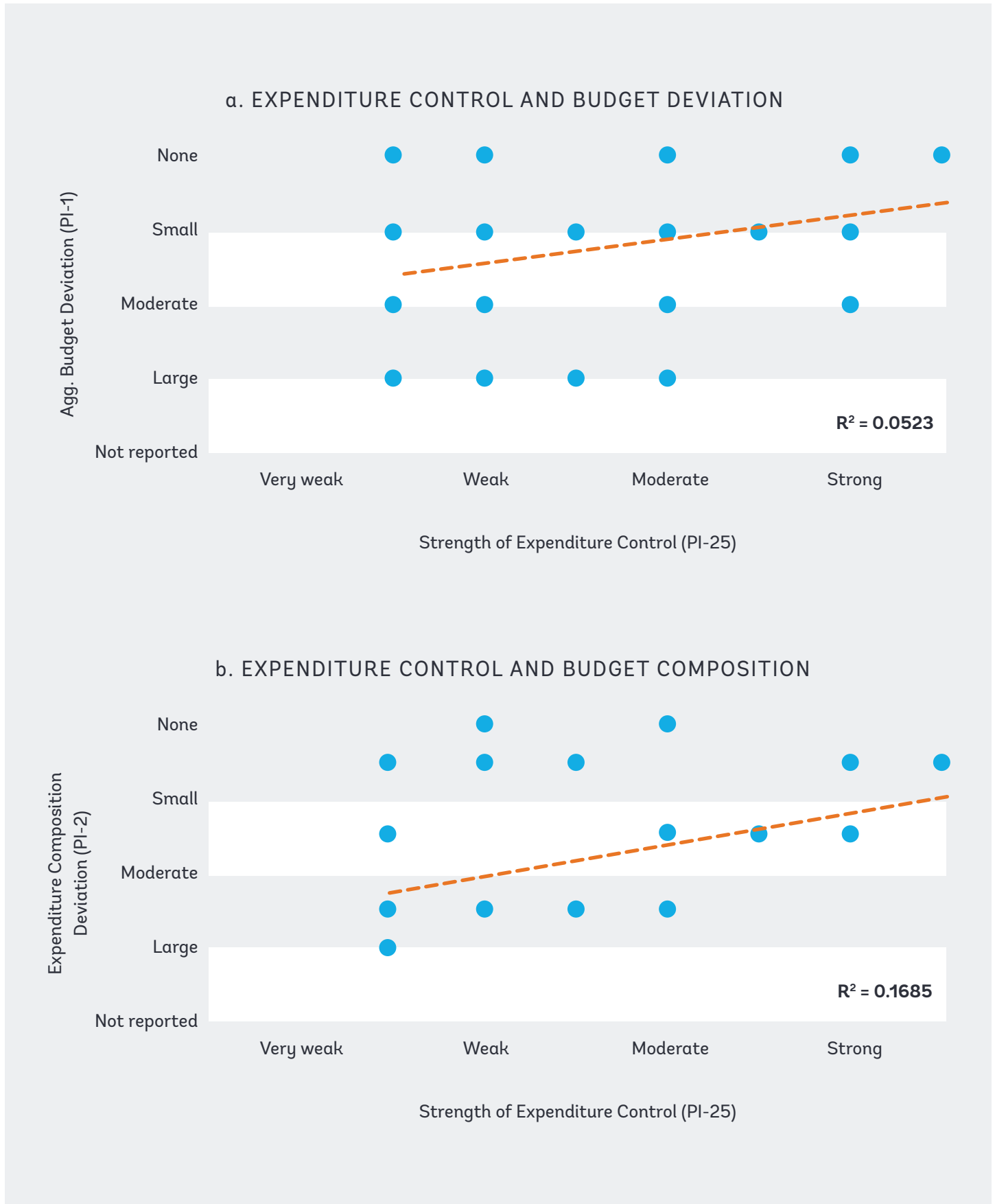


FIGURE 11 - PEFA Scores: Arrears Outcomes, Expenditure Control and Predictability of Resources

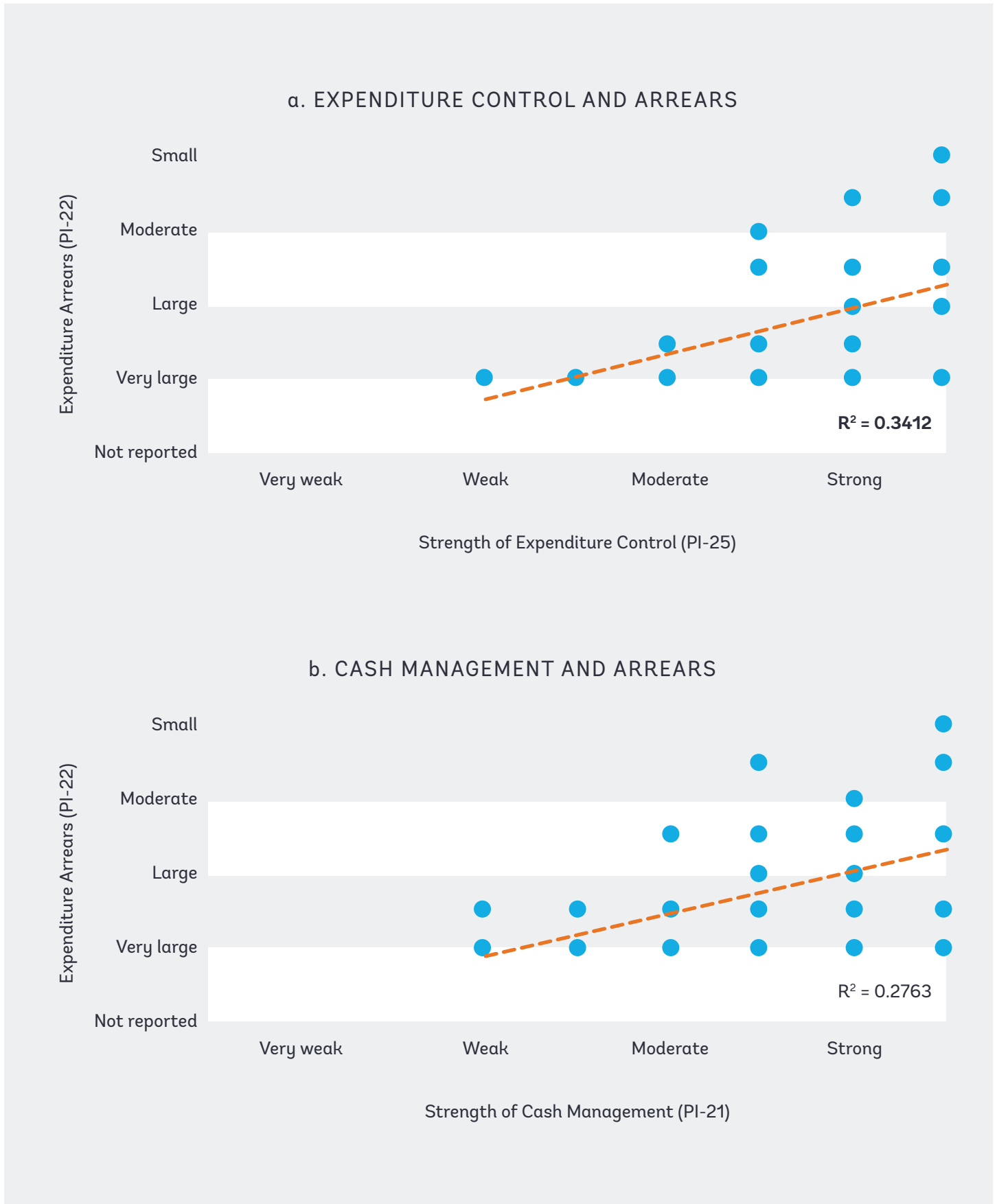




FIGURE 12 - PEFA Scores: Stock of Arrears, Cash Forecasting and Commitment Ceilings

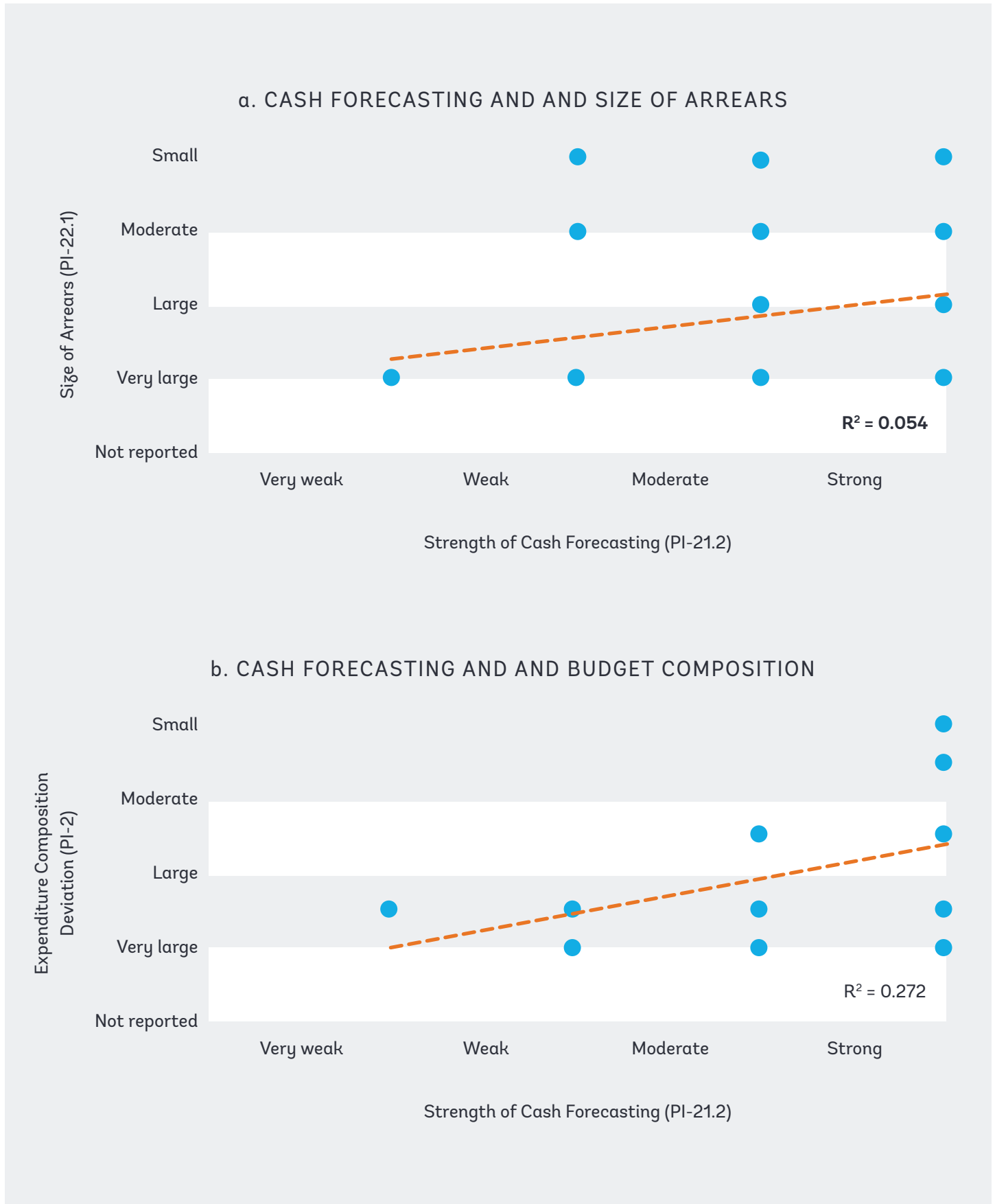
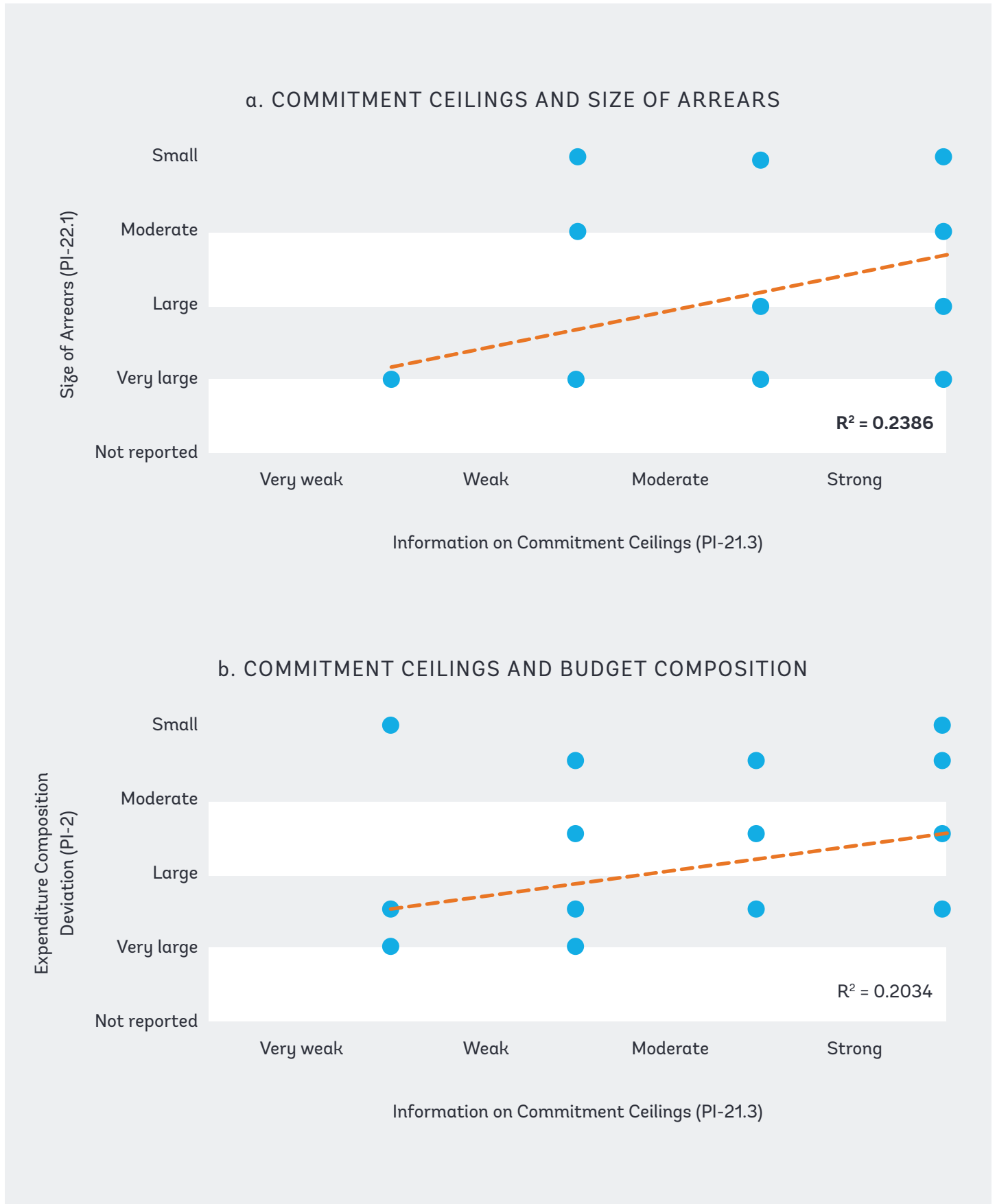


FIGURE 13 - PEFA Scores: Cash Forecasting, Size of Arrears and Budget Composition



**Regional comparison shows that experiences vary.** For example, the World Bank’s Latin America and Caribbean (LAC) and Europe and Central Asia (ECA) regions both have strong resource predictability and expenditure control scores. LAC has good outcomes on budget composition, but arrears are high. ECA has a more mixed story on budget composition, but relatively good outcomes with respect to arrears. A summary of the key PEFA indicators for LAC, ECA, Africa (AFR), East Asia and the Pacific (EAP), Middle East and North Africa (MNA) and South Asia (SAR) is presented in Annex 7.

**The PEFA is an essential tool to help identify key areas where problems may lie, and further contextual analysis should be focused.** While these PEFA scores are helpful to understand general trends, practical experience tells us that they should not be relied upon to reveal the problems definitively and may be more optimistic than the realities on the ground. Experience from case study countries and wider experience shows that meeting the minimum requirements of a PEFA indicator does not give adequate diagnostic information about the health of a process. For example, the fact that a cash plan is prepared regularly may lead to a score of A, but this tells us very little about whether it is actively used by the decision makers. This may be implied by other

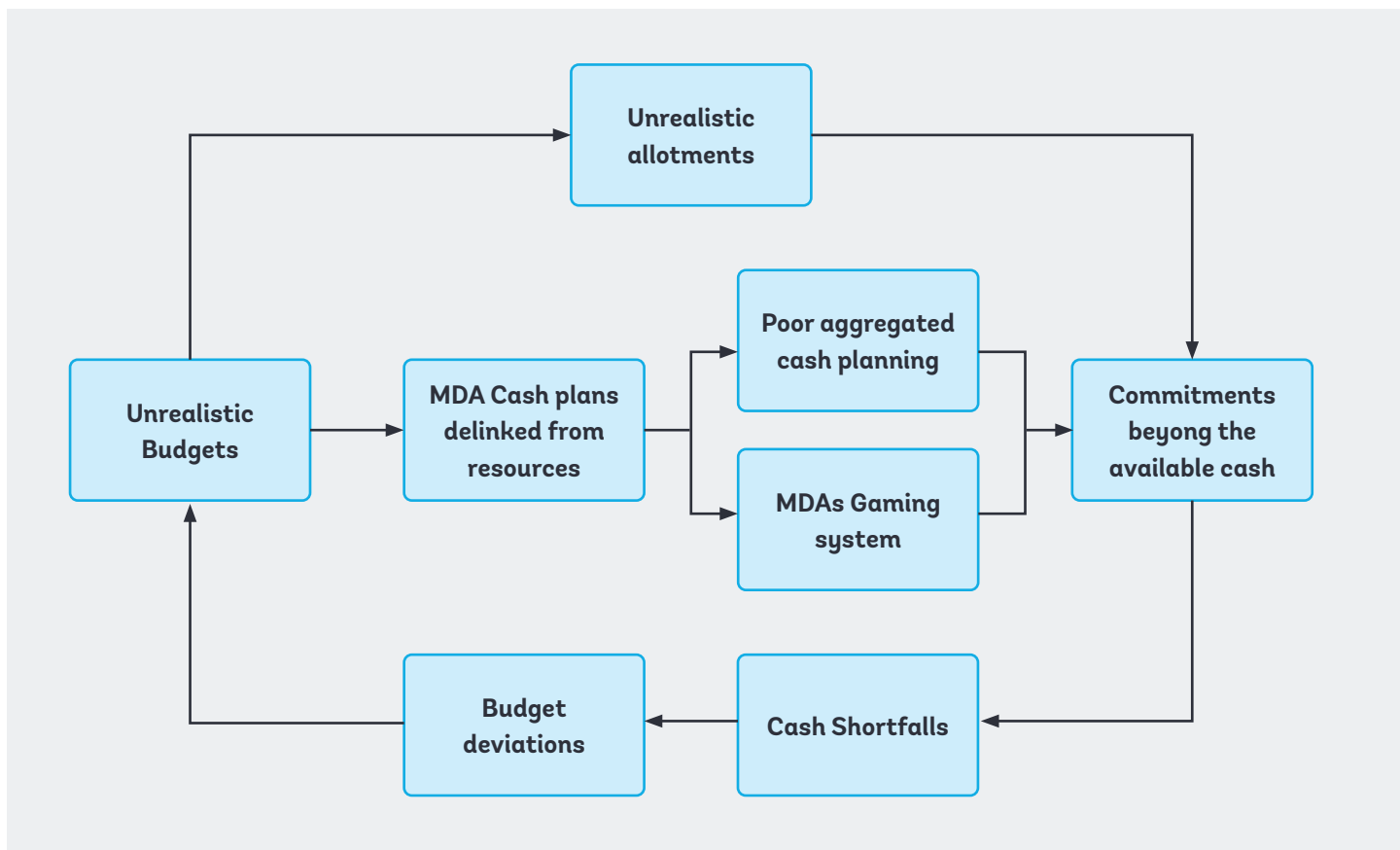
outcome-oriented indicators such as the size of arrears or budget composition, but further context-specific analysis is necessary to understand the underlying issues contributing to the outcomes.

## 2.2 Framework for Understanding Underlying Weaknesses

**Problems in functional areas of cash management and expenditure control usually affect the broad outcomes for predictability of cash for service delivery and investment in multiple areas.** An example is that unrealistic budgets put pressure on cash managers by systematically inflating the mismatch between inflows and expected outflows, while at the same time undermining cash planning which should be based on the budget proposals. Negative reinforcement is likely: the interconnected nature of the processes and the relatively quick cyclical nature of money-in, money-out provide many opportunities for problems to be exacerbated throughout the fiscal year or over the medium term. [Figure 14](#) below provides an illustrative example of how this might occur in practice.

> > >

**FIGURE 14 - Illustrative Example of Interconnected Challenges**



**Given the interconnectedness, problems in expenditure control are highly unlikely to be isolated.** Understanding the possible underlying weaknesses, diagnosing the specific causes, and building consensus around the solutions will typically require coordination between multiple actors across

the core finance institutions and MDAs. The framework below is designed to trigger this diagnosis by proposing possible underlying causes for different high-level outcome areas or “buckets.”

> > >

### BUCKET 1 - Planning and Forecasting

PROBLEM	EFFECTS OF THE PROBLEM FOR THE BUCKET	POSSIBLE UNDERLYING CAUSES OF THE PROBLEM IN THE CONTEXT OF THE BUCKET	EXAMPLES
<b>Over-Optimistic Revenue</b>	<ul style="list-style-type: none"> <li>Unrealistic levels of expenditure are approved as a result.</li> <li>Macrofiscal framework is weakened.</li> <li>Unrealistic MDA Cash Plans undermine forecasting.</li> </ul>	<ul style="list-style-type: none"> <li>Volatile revenue streams, particularly external grants, and natural resource revenues.</li> </ul>	Zambia, Indonesia, WBG
		<ul style="list-style-type: none"> <li>Unwillingness to make expenditure cuts in the face of declining revenues.</li> </ul>	Zambia
		<ul style="list-style-type: none"> <li>Political pressure to inflate projections to support incremental budgeting.</li> </ul>	Bangladesh, Zambia
		<ul style="list-style-type: none"> <li>The result of negotiation between the Treasury and the revenue authority to improve revenue collection performance.</li> </ul>	Kenya, Sierra Leone
<b>Unrealistic Expenditure</b>	<ul style="list-style-type: none"> <li>Budget cuts, additional unplanned borrowing or deferred payments become necessary because: <ul style="list-style-type: none"> <li>Budgeted items are unaffordable.</li> <li>Unbudgeted items are presented for expenditure displacing budgeted items.</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>Unrealistic revenue or financing estimates mean the expenditure budget is also unrealistic.</li> <li>Unplanned expenditures presented as payment requests.</li> <li>Budgets underestimate costs on policies and in-year adjustments are required to meet policy costs.</li> </ul>	All except Bhutan
<b>Mismatch between Inflows and Outflows</b>	<ul style="list-style-type: none"> <li>Inability to anticipate mismatches weakens cash forecast.</li> </ul>	<ul style="list-style-type: none"> <li>Poor coordination between departments.</li> <li>Poor capacity to forecast.</li> </ul>	Zambia, Sierra Leone
		<ul style="list-style-type: none"> <li>Volatile external sources of revenue (grants, natural resources).</li> <li>Unplanned expenditures presented as payment requests.</li> </ul>	Zambia, WBG, Bhutan.

PROBLEM	EFFECTS OF THE PROBLEM FOR THE BUCKET	POSSIBLE UNDERLYING CAUSES OF THE PROBLEM IN THE CONTEXT OF THE BUCKET	EXAMPLES
<b>Ad hoc or reactive debt decisions</b>	<ul style="list-style-type: none"> <li>Borrowing is costly or not available at times when required to address short term cash shortfalls.</li> <li>Unplanned calls on the budget due to increased interest payments.</li> <li>Cost of carry.</li> </ul>	<ul style="list-style-type: none"> <li>Optimistic debt strategy: Lack of access to planned levels of debt and/or requiring debt that has higher interest implications than planned changes the mix of debt in strategy at short notice.</li> <li>Taking on unplanned debt alters the debt strategy and reduces fiscal space through additional debt payments.</li> <li>Borrowing plan not aligned to cash plan.</li> <li>Poor coordination and fragmentation between cash and debt management.</li> </ul>	Sierra Leone, Kenya
<b>Commitments made beyond available cash</b>	<ul style="list-style-type: none"> <li>Unplanned commitments impact plans.</li> <li>Cash rationing.</li> <li>High cost debt.</li> <li>Accumulation of arrears.</li> </ul>	<ul style="list-style-type: none"> <li>Unrealistic budget and especially over optimistic revenue.</li> <li>Incentives to withhold information.</li> </ul>	Common experience
<b>Short term decisions about what gets paid</b>	<ul style="list-style-type: none"> <li>Budget deviations.</li> <li>Deviation from borrowing plan.</li> <li>Delayed payments and/or arrears growth.</li> </ul>	<ul style="list-style-type: none"> <li>Crisis causes too many in-year changes.</li> <li>Powerful MDAs apply pressure.</li> <li>Decision makers not confident in cash plans and unwilling to delegate power to prioritize payments.</li> </ul>	Sierra Leone
<b>Lack of transparency in banking arrangements</b>	<ul style="list-style-type: none"> <li>Weakens available information for forecasting.</li> <li>Limits access to cash even if it is idle.</li> </ul>	<ul style="list-style-type: none"> <li>TSA incomplete or not implemented</li> </ul>	Common experience, with the recent exception of WBG
<b>Weak institutions and collective action problems</b>	<ul style="list-style-type: none"> <li>Departments within Ministry of Finance (macro, debt, budget, accounting) do not coordinate.</li> <li>MDAs are incentivized not to share information.</li> </ul>	<ul style="list-style-type: none"> <li>Asymmetric information and incentives to withhold information about cash plans due to real or perceived impact on access to cash.</li> </ul>	Kenya, Sierra Leone, Zambia

**BUCKET 2 - Commitment Control**

PROBLEM	EFFECTS OF THE PROBLEM FOR THE BUCKET	POSSIBLE UNDERLYING CAUSES OF THE PROBLEM IN THE CONTEXT OF THE BUCKET	EXAMPLES
<b>Over-Optimistic Revenue</b>	<ul style="list-style-type: none"> <li>Cash shortfall likely, when optimistic revenue estimates are systemic. If allotments are not adjusted, pressure on Treasury to manage at commitment or ration cash at payment stage.</li> </ul>	<ul style="list-style-type: none"> <li>Political pressure to inflate projections to support incremental budgeting.</li> </ul>	Sierra Leone, Kenya, Zambia
<b>Unrealistic Expenditure</b>	<ul style="list-style-type: none"> <li>Unrealistic allotments, especially where cash managers are unable to influence.</li> <li>Poorly recorded or unknown obligations or contingent liabilities.</li> </ul>	<ul style="list-style-type: none"> <li>Pressure for incremental budgeting and weak Macroeconomic framework.</li> </ul>	Common experience
		<ul style="list-style-type: none"> <li>Weak application of PIM guidelines and project screening.</li> <li>Poor and/or withheld projects information.</li> </ul>	Kenya, WBG, Zambia
<b>Mismatch between Inflows and Outflows</b>	<ul style="list-style-type: none"> <li>Allotments poorly informed by likely cash availability.</li> <li>Payment delays and arrears.</li> <li>Costly unplanned borrowing.</li> </ul>	<ul style="list-style-type: none"> <li>Poor forecasting.</li> <li>Poor coordination.</li> <li>Unpredictable, large, and volatile revenues (Natural resource or external finance).</li> </ul>	Zambia, Sierra Leone, WBG, Bhutan
<b>Ad hoc or reactive debt decisions</b>	<ul style="list-style-type: none"> <li>Unplanned calls on the budget due to increased interest payments.</li> </ul>	<ul style="list-style-type: none"> <li>Optimistic debt strategy: Lack of access to planned levels of debt and/or requiring debt that has higher interest implications than planned.</li> <li>Taking on unplanned debt alters the debt strategy and reduces fiscal space through additional debt payments.</li> <li>Poor coordination and fragmentation between cash and debt management.</li> </ul>	Kenya, Sierra Leone
<b>Commitments made beyond available cash</b>	<ul style="list-style-type: none"> <li>Direct effect</li> </ul>	<ul style="list-style-type: none"> <li>Unrealistic budget and especially over optimistic revenue.</li> <li>Incentives to withhold information.</li> </ul>	Common experience
<b>Lack of transparency in banking arrangements</b>	<ul style="list-style-type: none"> <li>Cash may be available but cannot be accessed causing commitments to not be payable.</li> <li>Cost of carry.</li> </ul>	<ul style="list-style-type: none"> <li>TSA not functional, consolidation of accounts and zero-balance/clearing not implemented.</li> </ul>	Common experience
<b>Weak institutions and collective action problems</b>	<ul style="list-style-type: none"> <li>MDAs are incentivized not to share information.</li> <li>Commitments are made off system.</li> </ul>	<ul style="list-style-type: none"> <li>Asymmetric information and incentives to withhold information about commitments due to real or perceived impact on access to cash.</li> </ul>	Common experience

**BUCKET 3 - Functional TSA and Banking Arrangements**

PROBLEM	EFFECTS	POSSIBLE CAUSE FOR WEAKNESS	EXAMPLES
<b>Over-Optimistic Revenue</b>	<ul style="list-style-type: none"> <li>Establish special accounts.</li> <li>Resist implementation of TSA</li> </ul>	<ul style="list-style-type: none"> <li>Expected revenue shortfalls may incentivize MDAs to create and poorly disclose accounts with commercial banks to provide themselves with a cash buffer.</li> </ul>	Common experience
<b>Unrealistic Expenditure</b>	<ul style="list-style-type: none"> <li>Establish special accounts.</li> <li>Donor projects require special accounts due to unreliable budget execution.</li> </ul>	<ul style="list-style-type: none"> <li>Proliferating special purpose accounts.</li> <li>Withholding own source revenue data.</li> <li>Deviations or possible in year cuts may encourage proliferation of accounts.</li> </ul>	Common experience
<b>Lack of transparency in banking arrangements</b>	<ul style="list-style-type: none"> <li>Direct effect.</li> <li>Cost of carry.</li> <li>Unplanned and costly borrowing.</li> </ul>	<ul style="list-style-type: none"> <li>Proliferation of commercial accounts may be necessary for service delivery, while the systems have not caught up in terms of TSA integration.</li> <li>Weak TSA implementation.</li> <li>Accounting and reporting poor.</li> </ul>	Common experience
<b>Weak institutions and collective action problems</b>	<ul style="list-style-type: none"> <li>Resist implementation of TSA.</li> </ul>	<ul style="list-style-type: none"> <li>Lack of trust and poor information leads MDAs to avoid sharing information on cash plans, arrears or bank accounts/ balances.</li> </ul>	Common experience

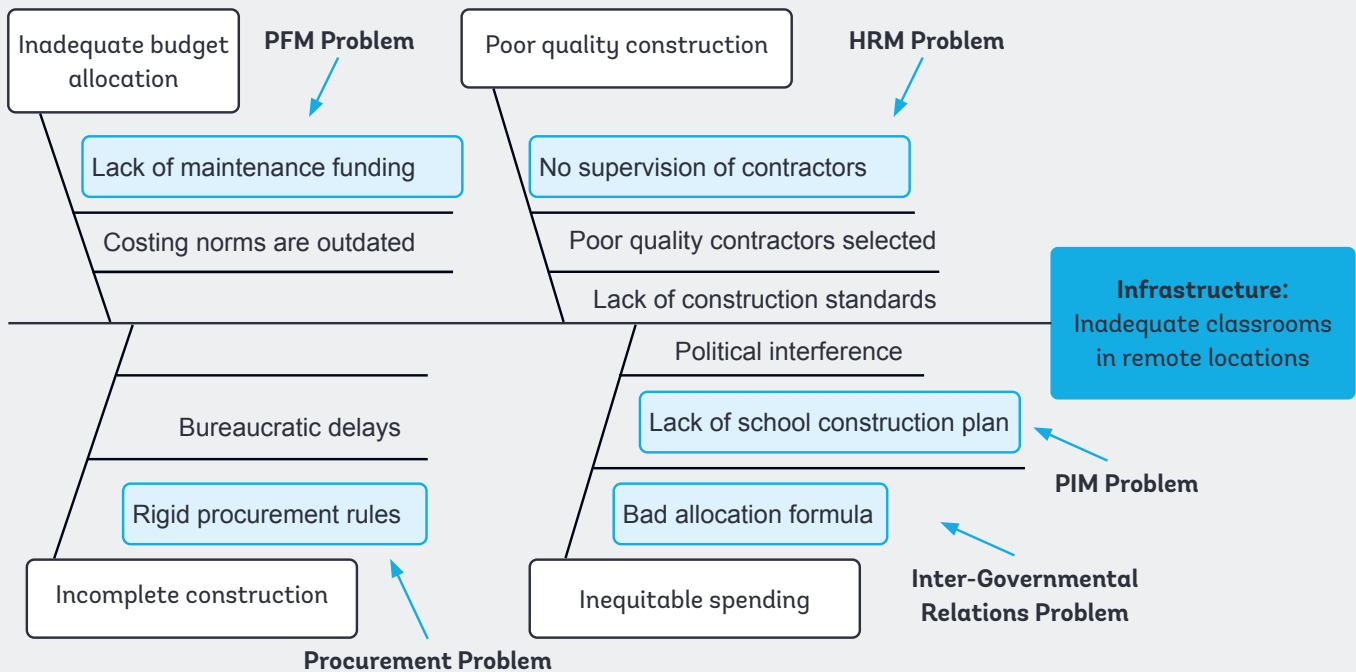
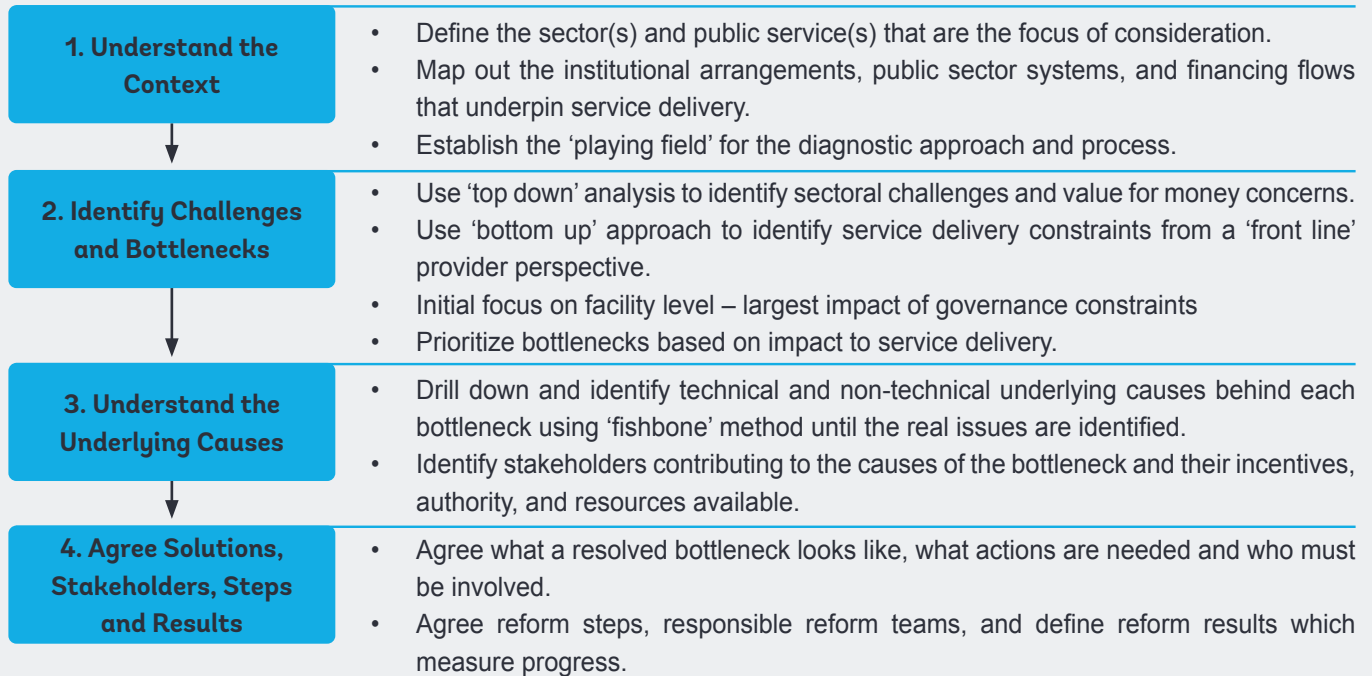
## 2.3 Identifying Challenges in Practice

The process for identification of challenges may be as important as the identification itself. Bottlenecks to service delivery caused by commitment control and cash management will typically be complex, involving multiple stakeholders, systems and affect multiple areas. Identifying the underlying causes of these challenges and prioritizing the areas to address requires a collaborative approach where stakeholders build a consensus through an iterative engagement. It is an opportunity to build the coordination frameworks between siloed departments from the initiation of the reform, rather than attempt to do so later in the program. To facilitate such approaches to reform the World Bank Governance Practice is developing tools and guidance based experience of reforms and operations in Kenya and other client countries.<sup>20</sup>

**Consensus around the issues and the chain of interconnected problems that cause them is at the heart of problem identification.** Fishbone analysis is a helpful method to work through problem identification collaboratively, as described in Figure 15 below. Working backwards from an agreed bottleneck, such as inadequate classrooms in remote locations, stakeholders can identify direct causes, and then a cascading set of further causes that underlie them. This helps to get to the root causes, and also to identify specific issues and the systems and actors responsible for addressing each. Some root causes may affect multiple bottlenecks, helping to identify priorities for intervention that may have wider impact.

20. See Williamson et al. Forthcoming.

**FIGURE 15 - Approach to Identify/Address Governance Constraints to Delivery and Value for Money**



Fishbone analysis helps to identify not only the root causes of bottlenecks, but also which public sector systems are relevant for resolving them (blue boxes).

**Look out for:**

- Common bottlenecks that span across multiple service delivery areas.
- Common root causes that span across multiple bottlenecks.

This helps teams to identify the space for change the relevant actions and solutions in further steps, and the feasibility of addressing them.

Source: Williamson et al. (Forthcoming).



**Experience from the case study countries helps to identify numerous underlying causes for key problems in commitment control and cash management.** This section is broken into the eight common problems identified in [Box 9](#) and draws from case studies to give examples of how they develop in practice. Each is examined in this context: How is the problem characterized? What is triggering or perpetuating the problem? What effects might the problem have? What options are there for addressing the problem? Examples are taken from discussions with WB country teams, related literature and studies.

## Over-Optimistic Revenue Projections

**Systematically overestimated revenue undermines the fiscal framework and underestimates the fiscal gap.** Pressure to overestimate revenue to give the appearance of more fiscal space is often the result of a negotiation with MDAs that is largely incremental in nature rather than based on resource availability (Bangladesh and others). Other key reasons for this are (i) unwillingness to make expenditure cuts in the face of declining revenues (Zambia, Indonesia, West Bank and Gaza); or (ii) the result of negotiation between the Treasury and the revenue authority to improve revenue collection performance (Kenya and Sierra Leone). This has knock-on effects across the cash management and commitment control systems as estimated revenues are highly likely to fall short of planned expenditures. Allotments derived from an optimistic appropriated budget, and poorly informed by a cash plan, will likely authorize expenditures that are more than available cash as the year progresses. The result is pressure on the macrofiscal framework that will require either reduced expenditure to maintain fiscal discipline, affecting planned service delivery and infrastructure or increased debt or arrears. Where revenues do fall short, the evidence may not trigger action until late in the fiscal year, leaving a much shorter period to manage financing, or cutting the shortfall before the close of the year. Evidence from PEFA suggests that poor revenue outturn is also a relatively strong predictor of large aggregate budget deviations.<sup>21</sup>

**Internal capacity of MDAs and local governments to forecast inflows is essential for service delivery.** The inability to predict cash inflows over the immediate and medium terms and poor coordination with the Treasury on cash availability will have a direct effect on financing service delivery. For subnational governments, this situation

is particularly acute: skills to forecast inflows are inevitably weaker than at national level; access to financing options are limited or non-existent; and grants often make up the vast majority of revenue, and many of which may be ringfenced or otherwise non-fungible for the purposes of budget execution. Yet, at the same time these subnational governments are often the primary implementer of services.

## Unrealistic Expenditure

**Expenditure outturn that deviates significantly from the appropriated budget, either at the aggregate or the distribution within the budget, indicates a breakdown between what is planned and what was delivered.** In-year appropriations of supplementary budgets may improve the alignment and the legal compliance of the budget, but if these are ex-post adjustments to authorize a package of already executed virements or spending deviations rather than active policy changes to allow changes in future spending, the practice may hide the true nature of budget realism. Low flexibility of discretionary expenditures such as salaries and interest payments limit the scope to adjust the budget profile in-year, placing extra pressure on operational expenditure and investment, and consequently undermining service delivery which depends on predictable funding of these budget items.

**Variance of sector and individual MDA budget outturn can reveal in-year reprioritization of resource allocation while the variance of composition by economic item can reveal the breakdowns in the efficiency of the mix of inputs planned for service delivery.** Deviations in composition will either impact allocations to other sectors or, where fiscal discipline is weak, affect macrofiscal sustainability and the pressures on borrowing. PEFA scores of the case study countries show that positive outcomes in reliable composition of the budget are harder to achieve than controlling aggregate deviation (See Annex 7a). The story behind these deviations is more revealing than the scores themselves; [Table 6](#) summarizes key reasons for budget deviation in three case study countries.

**The strength and adherence to the macrofiscal framework is critical to ensure the ‘wish-lists’ of MDAs are curtailed and prioritized to meet sustainability criteria.** The PEFA covers these broader outturn indicators and the macrofiscal forecasting capacity. PI-21.4 clarifies the scale of in-year adjustments.

21. Comparison of PI-1 and PI-3 scores for 47 countries.

**TABLE 6 - Drivers of Budget Deviations: Zambia, Bangladesh, and Kenya**

<p><b>Zambia</b></p>	<p>Overspending on subsidies and, in later years, debt payments caused a significant fiscal gap. This was absorbed to some extent by cuts to smaller sectors, some of which experienced underspending of up to 50%. Health, education, and public works all experienced significant variations both under and over original budget. Ultimately unsustainable debt financing led to a default in late 2020.</p>
<p><b>Bangladesh</b></p>	<p>While aggregate budget outturn is consistently below the original budget, in year supplementary budgets have become institutionalized in Bangladesh and the result is an expectation of significant deviations to the originally planned budget with negotiations around allocation typically on the margin rather than policy based. The public services ministry has been used as a de-facto contingency fund to withhold funds for in-year reallocation.</p>
<p><b>Kenya</b></p>	<p>Kenya also has an institutionalized supplementary budget which can be under consideration before the original budget is even passed, undermining the credibility of the original budget and incentivizing continued negotiation around budget allocations. Poor outturns in public investment spending are significantly affected by the volume of dormant projects, a rationalization of which could yield 1.5% of GDP in fiscal savings. Until recently, a lack of comprehensive screening and selection of projects entering the pipeline has made it difficult for the Treasury to challenge MDAs on costs.</p>

Source: PEFA Reports and interviews; Kenya Public Expenditure Review 2020.

**A deeper analysis through a Public Expenditure Review (PER) or similar instrument is required to understand more complex elements.** For example, the stock of stalled projects is helpful evidence to understand the realism of the public investment plan and the scale of the problem in terms of any rationalization exercise. Entry of expenditure that was not originally planned into the budget is also often a significant factor, examined in more detail below with execution and payments.

**Budgets can be seen as a management tool to improve expenditure efficiency and as a contracting tool to gain stakeholder support and cooperation.** Credibility breaks down when uncertainty of information or lack of compliance undermines the management role, or when the Executive uses the budget to intentionally misrepresent aspects of the budget plan to win stakeholder support.<sup>22</sup>

## CHALLENGES TO BUDGET CREDIBILITY

### Management Challenges:

**Uncertainty** – Lack of knowledge on future makes in-year adjustments necessary.

**Unruly Agents** – Inability to control subordinates exposes gaming of the budget by stakeholders.

### Contracting Challenges:

**Signaling** – Budget presentation is a partial fiction in order to influence external actors.

Adapted from Simson and Welham (2014).

21. Comparison of PI-1 and PI-3 scores for 47 countries.

22. Simson and Welham (2014).

In Kenya, sector and MDA budget allocations are negotiated during a high profile “budget hearing,” but the information available to the Treasury is inadequate to make serious challenges to the operational or allocative efficiency of the budget proposals. Limited capacity to challenge MDAs on broad policy is part of the problem, but this is exacerbated by a lack of structured data on policy costs, existing budget commitments and a lack of time to examine justifications for expenditure decisions. A recent PER in Kenya has examined investment projects as a key cause of inefficient budgets (See [Box 10](#)). The story in Zambia is similar, with limited information sharing between MDAs and the Treasury, and poor implementation of appraisal processes. The Treasury in Kenya has responded by introducing reforms to strengthen the challenge function, including a costing exercise

well in advance of the budget hearing to establish a budget baseline for each MDA. Public Investment Management (PIM) Guidelines have been prepared and disseminated in both countries to formalize and improve the credibility of the development budget and, in Kenya, a stocktaking and project rationalization exercise to further inform the budget has been undertaken.

**Systematic overestimation of revenues allows a Treasury to signal commitment to stakeholders while there is general expectation that in-year cuts will be necessary to maintain fiscal discipline.** By withholding expenditure, the Treasury is provided with a crude tool to exercise in-year controls while retaining a higher degree of flexibility. This is a common problem in the case study countries.

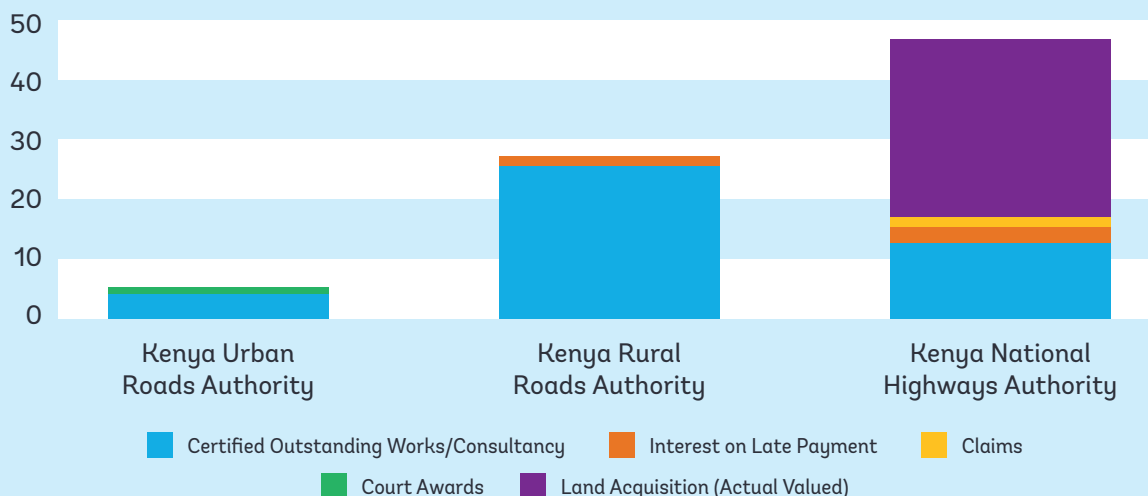
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### BOX 10 - Public Investment Challenges in Kenya

Kenya is scaling up infrastructure investment but currently has hundreds of dormant projects amounting to 13% of GDP that continue to receive allocations, tying up fiscal space. A key reason is the inadequate hand over of projects from national to sub-national actors during devolution. Planning the transition of the ownership of assets and projects was secondary to the negotiations around functional mandates and revenue allocation. Five years on, the water sector still lacks the institutional and legal frameworks to clearly assign responsibility for public investment and Asset management (Folscher et al. 2019). Where projects have been fully handed over, sub-national strategies have sometimes meant the project is no longer a priority.

Final changes to the budget prior to approval have routinely included new projects that have not passed through the appraisal and selection processes leading to projects that are not ready for investment or coordinated with the rest of the investment program. Land acquisition or completion of legal arrangements for un-screened projects is often a major reason for delay. Inadequate allocations for land acquisition is also a primary reason for arrears in the infrastructure sector.

PENDING BILLS FOR INFRASTRUCTURE PROJECTS JUNE 2019 (KSH. BILLION)



Source: World Bank 2020.

19. Pattanayak (2016) found the relationship between weak expenditure control and higher budget deviation to be much stronger in a comparison of 85 PEFA from 2006-2014.

The Medium-Term Expenditure Framework (MTEF) or fiscal framework is important as a management tool to arbitrate priorities between sectors in the medium term, but also as a signaling tool, committing the executive to a certain broad course of action. Where the MTEF is disconnected from sector plans and the actual budget it has no management impact, and ultimately reinforces a perception of the budget as theatre.<sup>23</sup> Where the budget is prepared in an incremental nature, even a linked MTEF can have limited value, making its role less of a strategic nature and more of arbitration.

### What does it cause?

MDA cash plans are designed to match the full resources they expect in the budget and will be as systemically inaccurate as the budget, undermining the ability to forecast. The lack of credibility of both budgets and the ability to provide resources in line with cash plans can also be highly demotivating for MDAs who may put little or no effort into developing a cash plan.<sup>24</sup>

Budgets that are systematically underfunded, or where significant deviation occurs, necessarily require cash managers to challenge and revise downwards some or all MDA cash plans and allotments which may not be politically viable. Where the budget is not implemented as planned, allotments, requisitions, and even payments become less reliable as MDAs cannot be sure that they will receive planned revenues either because adequate funds are not available, or that they will be reallocated in-year. Where the cash management team is unable to influence the allotments based on more realistic forecasts of resource availability, the allotments may not be altered, compromising the entire expenditure control process (See [Figure 5](#)). Sierra Leone and Kenya are both examples of this where allotments are set at fixed amounts, usually a quarter of the budget as default in Kenya, effectively removing allotment setting as a tool in expenditure control.

When budget credibility is poor, MDAs are incentivized to game the system and withhold information, knowing that resources are flexible and if they do not actively work to access resources they may well not receive them. This reinforces a culture of 'budget as theatre' and increases the likelihood of budget deviations. Knock-on effects may include: withholding important information around the expenditure proposals that would help the Treasury coordinate and improve efficiency; masking information around existing commitments or own source revenues; or the proliferation of

special purpose accounts designed to safeguard resources and provide an MDA level cash buffer.

Unrecorded expansion of contingent liabilities and obligations are likely where unplanned expenditures enter the budget, particularly projects that have not met appraisal requirements. Kenya and Zambia have both experienced significant challenges with identifying the scope and nature of the existing stock of projects, the associated arrears, and the implied costs involved in rationalizing or completing dormant projects. The result is a lack of clarity on the extent of liabilities and their inclusion in the budget, difficulty in assessing how to reduce them, and the possibility of unplanned payments requested from the Treasury.

### In-Year Mismatch between Inflows and Outflows

Technical capacity to forecast has been weak in many of the case study countries, but most have reported improvements over time. Volatile external grants play a large part: Bhutan has relatively strong revenue forecasting capabilities, but does not include grants in the budget unless they are confirmed, leading to frequent overperformance. West Bank and Gaza has a similar problem with reasonably good forecasting of VAT and other taxes, but a historic dependence on large and unpredictable grants in the early 2010s, which affected the overall forecasting effort and undermined the incentive for the cash managers to persevere in forecasting. Breakdowns in this function can be seen from three angles, all of which may be present to some extent: poor capacity to forecast cash inflows and outflows; poor communication between departments; and inability to act on the gap between inflows and outflows. Mismatched funds directly influence the ability to provide timely finance for service delivery and infrastructure spending and necessitate the delay of payments, possibly incurring additional fees and creating negative incentives for negotiating the payment priority.

### FORECASTING CAPACITY AND ANALYSIS

The case study countries have all scored relatively highly PEFA for cash forecasting ability, but this does not fully reflect the reality in practice. The amount of data and number of sources required for building an aggregate cash plan is extensive (See [Table 1](#)), making the initial development and institutionalization of the process both complex and fairly technical. However, once the processes and relationships are in place, preparing the cash plan is routine. Both Sierra Leone and West Bank and Gaza experienced challenges in

23. Rakner (2004).

24. See also the following section.

establishing basic cash forecasting models in the mid-2010s, but by 2020 these processes were reported as functional. Kenya is currently in the process of establishing an aggregate cash plan. Some issues encountered are listed below.

- **Development of integrated systems.** Starting simple and developing more functions slowly over time to establish a basic understanding of available cash was the approach in Sierra Leone while in Kenya, a desire to establish controls around priority expenditures led to the development of a more complex prototype which was later integrated into IFMIS systems.
- **Assigning staff to cover the necessary skill sets.** [Box 8](#) gives an example of the range of skills required. Given the range from accountants to analysts and information technology (IT) managers, it may differ from the core staff that exist in the parent department of the cash function. Adequate terms of reference for the roles and new hires are usually required, which may take time. Most of the case study countries found that while the necessary skills usually exist within the Treasury, assigning the right mix of staff for tasks could be challenging. A further challenge noted by a recent study is that in-year crises such as COVID-19 require a much more urgent and more frequent need for cash forecasting and analysis, but capacity cannot usually be rapidly established (Tello 2021).
- **Comparison of estimated and actual figures.** Identifying and following up deviations between the forecast estimates and the actual realized cash flows is essential to improve the quality of the forecasting model. The cash management team must establish a process to deliver this function, assign staff and design and implement corrective measures or incentives for improvement. It is important that the process involves comparison with bank balances and the reported flows to ensure that all cash operations are covered and any residual that may be caused by cash-in-transit or error is monitored.
- **Establishing common ground with the revenue authority.** Revenue forecasts often double as performance targets for the revenue authority. As a result, weekly or monthly targets and the reporting of revenues can be obscured due to institutional incentives.
- **Ownership of data in the model.** While the cash unit provides the capacity to consolidate the various sources of data, decision-makers require confidence from budget, revenue, and debt departments that the figures are accurate. As a result, technical members from each

department must be involved in the process and be able to recognize and defend their figures within the aggregate cash plan.

- **External communication of the cash plan by the Treasury.** This may be caused by a number of issues including: political concerns about the sources of funding or specific expenditures; or the challenge of creating allotments that may be perceived to be budget cuts by MDAs—a perception that may be accurate, especially in cases where revenue estimates are overoptimistic.
- **Identifying cyclical budget items and anticipating large payments.** Some of this can be done “in-house” by cash managers analyzing historical data around specific revenue streams, payroll, and regular grant payments. This is generally fairly crude and misses any changes or one-off transactions, particularly in the development budget.

## **COORDINATION BETWEEN DEPARTMENTS**

**Directly affecting the previous point is the capacity or incentives of MDAs, subnational governments, and revenue collecting agencies to prepare and communicate accurate cash plans.** This is probably the most enduring problem and directly impacts the quality and credibility of the overall cash plan. Top-down analysis of past trends should always be matched with bottom-up cash plans from MDAs for a comprehensive picture of cash requirements and cash availability to inform cash managers. MDAs often have weak cash planning capacity and often are disincentivized to provide cash plans when past experience has shown that the cash made available bears little relation to the cash plans.

**The Zambia case highlights the implications of poor inter-agency communication.** Where they are produced, procurement, commitment or cash plans prepared by the MDAs are relatively weak and poorly communicated with the MoF. The revenue authority produces some information on revenue flows, but gaps remain in the coordination with the MoF forecast. Coupled with the poor implementation of the PIM guidelines, the Accountant General is sometimes required to make disbursement decisions with only partial knowledge of future revenues and expenditures.

**Incentives for MDAs to cooperate are a common issue.** Bottom up engagement for in-year cash planning requires (i) a credible connection between budget, procurement plan, commitment plan, and MDA cash plan; and (ii) releases to be provided in line with the **cash plan**. If the latter does not

happen, then there is little incentive for the MDA to make the effort on the former. The result in Kenya has been that MDAs are hesitant to prepare detailed cash plans, and the Treasury defaults to quarterly allotments of one-fourth of the budget.

**There may be an issue of distinguishing information-sharing from expenditure control, which can be difficult when budgets are unrealistic, revenues over-optimistic, and some reductions are inevitable to maintain fiscal discipline.** When this is not clear, MDAs may be incentivized to provide biased estimates or withhold information.<sup>25</sup>

## **INABILITY TO ACT ON FORECASTS**

**Adequate forecasts may be undermined by a limited number of debt instruments available to the Treasury.**

Bhutan has at times been unable to match inflows with outflows despite strong forecasting skills due to the volatility in external grants and legislation that prohibits financing recurrent expenditure through borrowing. West Bank and Gaza has almost no access to debt instruments, while borrowing in Sierra Leone and Kenya can be highly influenced by market liquidity, and may even be a drain on reserves when an auction fails to roll over maturing bills.

### **What does it cause?**

**Unplanned borrowing is a frequent result of inflow-outflow mismatches.** While the interaction between the cash and debt functions should enable use of short term borrowing to smooth cash balance variations, very short term unplanned borrowing demands – for example, with less than a month’s notice – can mean appropriate debt instruments or market liquidity may not be available at the scale required, leading to inefficient instruments or rates. In countries with limited forecasting capacity, short-term borrowing demands are likely to be the norm and T-Bills may be able to take care of the majority of short-term unplanned borrowing.

**Where debt financing is not available or undesirable, cash is likely to be lower than commitments at points during the fiscal year, resulting in pending bills or arrears on unpaid invoices.** These may be paid later in the year as cash becomes available, but coupled with large outstanding stocks of pending bills, this may not be possible. Negative impact in government credibility will lead to greater costs for service and goods provision, since suppliers will charge more in the future already expecting delays to receive the due payments. Fees may also increase government costs. On the other hand, large inflows can cause temporary inefficient idle balances, especially if market remuneration is not granted. Poor ability to

forecast may also encourage the Treasury to build up reserves or keep a large buffer when large payments are anticipated but not certain.

## **Ad Hoc or Reactive Debt Decisions**

**While the link between debt and cash management is firmly established in best practice and is well established in higher income countries, the functions can be very weakly integrated and communication between the departments inadequate in lower income countries.** This often means that debt plans are developed without the information on when cash is required, and cash plans are developed without knowing when optimal borrowing may be available. When cash or debt plans are weak to begin with, the combination can lead to very little warning on when additional cash is required, pressure to acquire whatever debt may be available on the markets at short notice, or borrow from the central bank, forcing changes to the debt strategy and increasing borrowing costs. When the medium-term fiscal impact of short-term debt is not adequately calculated, the effect on fiscal space can be extremely damaging as Zambia experienced in 2020.<sup>26</sup>

**Unplanned calls on borrowing can often be the result of poor coordination.** Short term debt operations enable the central bank to manage market liquidity and debt managers to provide short-term financing to support cash management. In best practice, these two functions should be coordinated but distinct, with careful selection of instruments for each. In many lower income countries, there may be weak coordination among cash managers, the central bank, and debt management, leading to parallel and potentially conflicting borrowing operations. Poor coordination can also lead unplanned use of instruments with in-year calls for additional debt financing, impacting the longer-term debt strategy, or conversely calls on the budget for unplanned interest payments in the most severe circumstances, influencing budget credibility.

**Misalignment of cash and debt plans is particularly common as credible cash plans are not a given in many countries.** Implementation of borrowing plans can often experience similar pressures as the revenue projections with optimistic estimates undermining the credibility of the macrofiscal framework. Money market volatility and other conditions are often difficult to estimate in lower income countries further weakening the implementation of borrowing plans. Where cash and debt plans are prepared, they are frequently developed in silos with the cash plan reflecting revenue inflows and expenditure and the debt strategy reflecting planned maturities and borrowing transactions.

25. Comparison of PI-1 and PI-3 scores for 47 countries.

26. <https://www.bloomberg.com/news/articles/2020-11-16/zambian-finance-minister-says-bondholders-to-blame-for-default>.

**Unrealistic budgets and optimistic revenue projections will typically either force cuts to parts of the budget, arrears, additional borrowing, or a combination of these.**

Budget deviations and particularly unplanned expenditures add further pressure. When payments are particularly urgent, such as payroll, interest payments, or other non-discretionary items, the pressure to quickly find fiscal space through short term debt is severe. A total disconnection between the debt plans and the budget meant that as expenditure pressures ballooned beyond the original budget, financed by new debt, the impact of interest costs of new debt were not calculated forcing further unplanned costs on the budget and ultimately causing a debt default in December.

**With tight fiscal space, short term financing can be constrained to a very tight margin, effectively forcing the government into re-issuing T-Bills that are reaching maturity.** This gives little scope for using T-Bills to address short term financing needs as they are intended. In circumstances where there is poor market appetite for T-Bills or increasing interest rates offered by the market, the squeeze becomes even more pronounced, often resulting in the issue of further T-Bills to cover the growing interest costs as used to happen regularly in Sierra Leone. In some cases, even in middle-income countries such as Kenya, the short term-debt market has encountered serious challenges in times of fiscal crisis: notably that shortfalls in T-bills auction have led to extrabudgetary calls on the exchequer to finance the redemption of bills that could not be redeemed through the auction. After experiencing this multiple times in 2019/20, the Treasury established a contingency fund to cover shortfalls in the T-Bills auction in 2020/21.

**Where short-term borrowing ceases to be an option, delays to expenditure and the possibility of arrears become inevitable.** In the case of West Bank and Gaza, short-term borrowing was initially very constrained as it was limited to the central bank overdraft,<sup>27</sup> a facility which should ideally be limited in volume and extension and restricted to unusual circumstances.<sup>28</sup> This has changed more recently, and currently most domestic borrowing is in the form of promissory notes from local banks. Even where some short term borrowing is an option, a government with limited or unpredictable access to short term debt may feel obliged to build up reserves over several weeks to be able to pay larger expenditures, particularly salaries, which are typically at the end of the month. The cost of carry of stockpiling cash in this way can be significant.

## Commitments Made beyond Available Cash

This fundamental breakdown in expenditure control is a result of inadequate information available to the Treasury to inform allotments and ensure purchase requisitions can be covered, pressure to take on additional payments not included in the original budget, or a combination. Weak forecasting, inadequate records of existing liabilities, and poor coordination with debt managers undermines the necessary confidence the Treasury needs to adjust allotments and authoritatively align them with cash availability in order to influence commitment controls. Systemic revenue underperformance and expectation of cash shortfalls incentivizes MDAs to withhold or provide biased information, including committing to suppliers off-system to improve chances of accessing resources. Finally, political pressure to prioritize certain payments or include unplanned payments extends commitments, expanding the gap even further. Coupled with systemically overoptimistic revenues, weak control over commitments is all but guaranteed to lead to unpaid bills and growth in the stock of arrears.

**Allotments that are not informed by the availability of cash, or simply not enforced, will not be effective in constraining MDA commitments.** This is a common feature in all the case study countries since none of them have a comprehensive commitment control system. West Bank and Gaza is piloting commitment controls in four ministries after resistance in 2018 led to the reversal of a previous government-wide commitment control reform. But the link between commitments and available cash is limited even in this reform, and interventions to control commitments in pilot ministries are also limited.

**The problem is exacerbated by a lack of information on the stock of direct and contingent liabilities. Accrual accounting is designed to integrate this function, but it is not an achievable solution for most lower income countries and requires records on the stock and flow of liabilities to exist.** In the most extreme examples, MDAs may enter into commitments outside the systems and without the knowledge of the Treasury. This is routine in some of the case study countries and leaves the Treasury completely unable to control expenditure beyond basic cash rationing once payment requests are made.

**Unrealistic budgets mean that for allotments to be effective in controlling commitments they will need to be set below the appropriated budget levels, a political challenge that some Treasuries are simply unable to**

27. Arrangements between the Palestinian Authority and Israel do not allow the PA to borrow externally.

28. See Debt Performance Indicator 7 of Debt Management Performance Assessment (DeMPA). <https://www.worldbank.org/en/programs/debt-toolkit/dempa>.

**meet due to pressure from more powerful MDAs.** Further unplanned expenditure worsens the problem. This can be caused by emergency spending, overruns on certain project expenditures, commitments that emerge and were not budgeted for, and directives from the executive. In most of the case study countries, a significant number of projects are entered into the budget directly before budget approval without following PIM procedures. Lack of adequate information on these projects exposes the Treasury to “hidden” liabilities and contingent liabilities. This may increase continuing commitments that result from stalled projects that cannot be adequately funded as a result of the new projects. Coupled with systemically overoptimistic revenues, weak control over commitments is all but guaranteed to lead to unpaid bills and a growth in the stock of arrears.

**Most of the case study countries suffered from a lack of comprehensive record of arrears.** Poor management of arrears results in a growing stock and increased interest obligations. It also enables gatekeeping and opportunities for corruption around the scheduling of payment of arrears. These outcomes serve to reinforce, or at the least create vested interest in poor arrears management and for MDAs to withhold information about the arrears they are aware of. Where arrears and late payments are commonplace, vendors can be expected to predict and price these costs into their contracts, thereby further inflating the cost to the taxpayer.

**In Kenya, the cash plan is directly linked to the allotment – indeed, it forms the allotment. While this is helpful in forcing alignment, it means that a poor cash plan will mean a poor allotment.** In practice, the cash plans default to pro-rata for many MDAs and all subnational governments. This causes significant inefficiency and requires extensive ad-hoc adjustment of allotments during the year to accommodate bulky expenditures.

## Short-Term/Centralized Decisions about What Gets Paid

**Where there is little effort to manage at the commitment phase, the Treasury effectively must fall back on cash rationing practices and make decisions about what gets paid first based on submitted invoices and competing pressures from MDAs, suppliers, and politicians.** In these cases, MDAs are entering into commitments at allotment levels based on unrealistic budgets or even without constraint. While this appears extreme based on best practices, it is not uncommon. Incentives around gatekeeping and maintaining a high level, centralized control over payment decisions can deter Treasuries from addressing the problem.

**Where cash plans are weak, not available in time, or poorly understood by senior management they may be discarded in favor of highly centralized decision making on all releases based on current cash balances at the Central Bank and a list of payment requests and pending bills.** This situation was the status quo in Sierra Leone in 2015, despite a cash plan being prepared on a weekly basis. Familiarity with certain formats of data, lack of confidence in externally managed tools, or data that has not been explicitly owned by the most senior managers in the institution in question is a major issue. In Zambia in 2020, there were simply too many in-year changes, on a weekly basis, due to elections, COVID-19, the debt crisis, and the falling copper price that it was not feasible to manage the budget in any other way than day-to-day. This was not for lack of capacity as the Accountant General (AG) is competent and technically able, it is simply just that the pressures were immense.

**The opposite can also be true: cash forecasting may be compromised by powerful agencies that are able to impose requests to make payments that the Treasury is unable to turn down.** A situation of constant bilateral budget negotiation and limited independence of the Treasury in approving payments is a common feature of many lower income countries. In a particularly extreme example, in South Sudan in the early 2010s, an army general made an impromptu visit to the MoF premises with troops and weapons, including a grenade launcher that was set up adjacent to the Under Secretary’s office, while negotiations were carried out.

## Lack of Transparency in Banking Arrangements

**The implementation of a TSA to link all government bank accounts and enable regular consolidation is both a technical and political challenge for many countries.** Of the case study countries, only West Bank and Gaza has a fully operational TSA, and this is largely because the central bank function is delivered by a single commercial bank within which all government accounts were already held. Sierra Leone has made significant progress (See [Box 13](#)) on a TSA in terms of linking commercial bank accounts and viewing/reconciling balances, but has not yet been able to establish the ability to clear accounts and manage the overall balance.

**When availability of cash is unreliable, MDAs are incentivized to both protect cash reserves through maintaining bank accounts outside the Central Bank, and withhold information from Treasury to smooth cash availability within their own institution.** In some cases, the Treasury may resort to allowing cash balances in sub-accounts to delegate cash management to spending agencies



where the transfer of cash is costly or time consuming. In other examples, spending agencies may hoard cash in external accounts. Probably the single largest factor in many countries is that donor project funds are typically required to be held in individual special accounts, often in commercial accounts. Ultimately, this signifies a lack of trust in the existing TSA arrangements. Failure of donors to route funds through accounts that are covered by the TSA or at minimum make final payments in such a way that they are recorded through the TSA is an issue technically, as it reduces information on MDA operations and oversight of cash flows, and also from a signaling perspective as it further undermines MDAs' trust in TSA reforms.

**World Bank staff in sector and PFM roles may have differing opinions about the desirability of a functional TSA and an appropriate route to develop one.** Coordination between practices and involvement of sector colleagues in TSA reforms will be important in developing a roadmap. Bangladesh followed a strategy of piloting TSA reforms in the health and education sectors to focus efforts on service delivery and work with a manageable selection of MDAs. While a TSA needs to have comprehensive coverage to work effectively, this approach is a helpful way of developing confidence in TSA arrangements among the Treasury, MDAs, and World Bank TTLs in a way that can later be rolled out. The experience revealed that objections from TTLs are more likely in Investment Project Financing (IPF) programs and Program-for-Results (PforR) operations may be better suited for initial efforts to establish trust.

**For practical purposes, the use of commercial banks to access retail customers is often desirable, particularly for service delivery in harder to reach areas but where the systems for coordinating and reconciling commercial accounts are weak, transparency is reduced.** These pressures to fragment the banking arrangements at best undermine transparency and, in some cases, are actively designed to obscure activities. The end result is an elevated cost of carry and ineffective use of available resources. Resistance to forming a TSA also comes from the banking sector. Lack of agreements or enforcement around transit accounts and clearing balances encourages commercial banks to retain balances and withhold information to access greater liquidity.

**Financial reporting and transparency of accounts is directly impacted by the difficulties in reconciling fragmented banking arrangements.** Inadequate accounting methodology and low compliance compound the problem. Cash-based accounting inherently has less formal information on liabilities, particularly commitments. This leaves the country dependent on external tracking of commitments and other liabilities, which may be inadequate in detail and/or timing to support cash management functions. In Kenya, the Office of the Controller of Budget (OCOB) is mandated to approve MDA releases based on adequate implementation and reporting of previous quarters. Limitations in the amount of information available to the OCOB, originally due to systems access, but also due to the structure of financial reporting and the COA, mean that the office is not able to comprehensively review budget outturn and thus cannot fully complete its mandate (See [Box 11](#)).

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### **BOX 11 - Reporting on Conditional Grants in Kenya**

In the recently devolved Kenyan system of government, counties are responsible for a large share of service delivery. The national government supported by development partners have developed a number of conditional grants to support counties in delivering services. Conditional grants are appropriated by national MDAs, for example the Ministry of Health, and transferred to subnational governments for a specific purpose of spending. The grants are paid out biannually on condition of meeting the grant criteria, which include reporting on the expenditure of the specific grant.

In practice, the grant funds are co-mingled with general county revenue and the accounting system, without a fully functioning source of funds code, is unable to produce a report that definitively shows that the grant funds were spent for the intended purpose. As a result, is also not possible to produce a report on the balance of the conditional grant account to show how much has been spent and how much remains, which is a legal requirement for authorizing future release of funds. A reform to enable this reporting within the COA as well as the associated training at both levels of government – county and national – is required.

*Source: Authors.*

## Weak Institutions and Collective Action Problems

**Cash management and commitment control processes require close technical cooperation between all the central finance institutions of government and regular open communication with all MDAs.** The legal frameworks, skill sets, systems, and working arrangements – formal and informal – to govern these activities can end up being complex in more advanced countries, but need to be founded on basic principles of information exchange and compliance. Where trust breaks down between actors, silos preventing these principles are likely to emerge. This set of problems affects each of the seven other common problems (Box 9) in some form.

**Lack of budget credibility and poor communication between the Treasury and MDAs is self-reinforcing.** Problems around budget credibility discussed above trigger negative incentives around asymmetric information and increase pressure to withhold information about commitments or plans, applying further pressures to distort the budget. Events leading to the debt default in Zambia in 2020 show how this can play out: limited sharing of data on cash, commitment and procurement plans, liabilities and revenues left the AG with inadequate information when making disbursement decisions. Frequent cash shortfalls were financed through debt, but the increased cost interest for that debt was not calculated or communicated to the AG, further distorting the budget and eventually resulting in a debt default.

**Cooperation between core institutions on cash management may simply take time to establish as the functions are developed.** Originally, communication

between debt and cash management functions was poor in Sierra Leone, with disconnect between plans and no regular information sharing. Over time, and particularly with the introduction of a cash management committee, the relationship was established, and the plans are now made in tandem, with regular monthly and quarterly updates provided by the debt unit and weekly cash plan updates provided by the cash management unit. Facilitation of the committee by technical assistance (TA) helped with the establishment and skills development. Kenya also saw positive outcomes by establishing a Cash Management Framework and cross-departmental technical team structure, which provided a cross-institution forum and the mandate for technical staff to cooperate regularly without seeking permission from superiors.

**Resistance to change will come from the private sector and within the Treasury.** Commercial banks stand to benefit directly from holding idle balances, fragmented and uncoordinated fees for transactions, and unnecessary borrowing. Managing a transition to a more predictable and efficient arrangement for the government will likely negatively impact the opportunities for revenue for these banks. Therefore, carefully planned change management is essential to enable business models to adjust. Within the Treasury, reforms may also conflict with affect personal or institutional incentives. This may be caused by individual staff concerned about losing their roles, losing power, or losing rent seeking opportunities. This can be hard to predict before reform implementation. While some effects can be reduced or eliminated by a change management plan, other aspects will need to be firmly supported and pushed by senior management. See [Box 12](#) for Kenya's experience.

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### BOX 12 - Stumbling Blocks in the Operationalization of Cash Management Reforms in Kenya

Many challenges to the operationalization of the cash management framework and implementation of the cash management reforms are non-technical in nature and undermine technical efforts. First, there is an inadequate change management plan to support the legal and institutional framework that has been established. Second, the automation process has also encountered challenges in the roll out phase due inadequate stakeholder consultations largely impacted by COVID-19 disruptions. Thirdly, efficiency gains and incentives brought about by cash management digitization potentially impact on the political economy as the manual processes personalize and “bestow power” on cash prioritization and allocations. Together these challenges have slowed progress on the reform agenda. Continued leadership from the National Treasury to implement the cash framework to sustain cash reforms momentum through appropriate capacity building and communication remains critical.

Source: D. Nzioki and L. Matheka.

**Delivering reform is often described as needing a champion to signal commitment to change and follow through with decisions to implement the reform, but this is not always available, or may change.** Translating initial enthusiasm and commitment by the Treasury leadership in Kenya into practice proved challenging. Cash management committees were not regularly convened or chaired by senior managers, and associated decisions related to aggregate cash plans and cash allocations were not made. There were

similar experiences at points in Sierra Leone. In Bangladesh, changes in leadership during the TSA reform led slowed progress. The opposite can be true as well. TSA reform in Sierra Leone had the technical components largely in place, but a lack of commitment to the reform from the leadership meant no implementation. This rapidly changed on the arrival of a new government. [Box 13](#) below presents a brief description.

> > >

### **BOX 13 - Establishing a TSA in Sierra Leone**

Within a week of being sworn in after the election of 2018, President Bio of Sierra Leone issued his first executive order:

#### **IMPLEMENTATION OF TREASURY SINGLE ACCOUNT**

ALL MINISTRIES, DEPARTMENTS, AND AGENCIES OF GOVERNMENT THAT COLLECT AND RETAIN GOVERNMENT REVENUES ARE HEREBY DIRECTED TO TRANSFER ALL SUCH REVENUES INTO THE CONSOLIDATED REVENUE FUND WITH IMMEDIATE EFFECT CONSISTENT WITH THE PROVISIONS OF THE FISCAL MANAGEMENT AND CONTROL ACT, 2017.

THE ACCOUNTANT GENERAL IS ALSO HEREBY DIRECTED TO CLOSE ALL THE REVENUE COLLECTION ACCOUNTS OF AGENCIES LISTED IN THE FISCAL MANAGEMENT AND CONTROL ACT, 2017 AND TO OPEN SAME AT THE BANK OF SIERRA LEONE WITH IMMEDIATE EFFECT FOR THE COLLECTION OF ALL REVENUES PREVIOUSLY ADMINISTERED BY THESE AGENCIES.

THE CHIEF EXECUTIVE OFFICERS OF ALL COMMERCIAL BANKS ARE ADVISED TO STOP WITHDRAWALS OF FUNDS FROM THESE ACCOUNTS WITH IMMEDIATE EFFECT.

To a large extent, the effort has been successful. MDA accounts held in commercial banks have been substantially eliminated and those that remain, mostly either for imprest or donor projects, are monitored by the Treasury. Inflows of cash being monitored have risen from around 6bn Leones per week to 120bn. While the order was dramatic, and the importance placed on cash management by the new government fortuitous, the ability to deliver is largely due to technical efforts over the previous years to inventory MDA accounts in commercial banks, build a common understanding between the Central Bank and the Treasury on how to operate a TSA and the development of a PFM Act and regulations that establish the legal framework.



## Supporting Solutions

**Getting to best practice is not trivial, even for higher income countries.** Theory on cash management and commitment control gives us an array of best practice encompassing accrual accounting methods, the TSA and integrated budgeting, commitments, and payment systems. As reforms are developed, keeping an eye on best practice is essential, but understanding what is realistic, and more importantly how to get there, will benefit from both experience and careful judgement.

**This EFI Insight is designed to inform practitioners and help to identify the problem that needs resolving, select the instrument(s) that are most relevant for addressing it, and weigh options for how to deliver solutions.** There is no blueprint. Lessons from country case studies show that initial conditions, strong leadership, and internal champions play an important role in determining the pace of progress. But ultimately, the technical design of reforms needs to be appropriate to take advantage of these conditions and not depend on them. This section first looks in depth at three case study countries (West Bank and Gaza, Kenya, and Sierra Leone) that have made strong efforts to introduce cash management processes in the past five years and reviews starting conditions, what went well, what did not, and discusses the lessons that can be learned for program development and some specific solutions for certain problems. This is followed by two sections on technical assistance and using World Bank operations.

### 3.1 Identifying Underlying Causes and Solutions Which Address the Problem

**A collaborative approach to identifying solutions follows on directly from the framework for identification of challenges and stakeholders in results areas.** Consensus around the appropriate solutions is as valuable as consensus around the problem, and should follow as a key element of reform design and management. This involves moving from an understanding of what success would look like, and having stakeholders collaboratively agree on what needs to be done, in what order, and by whom, as presented below.

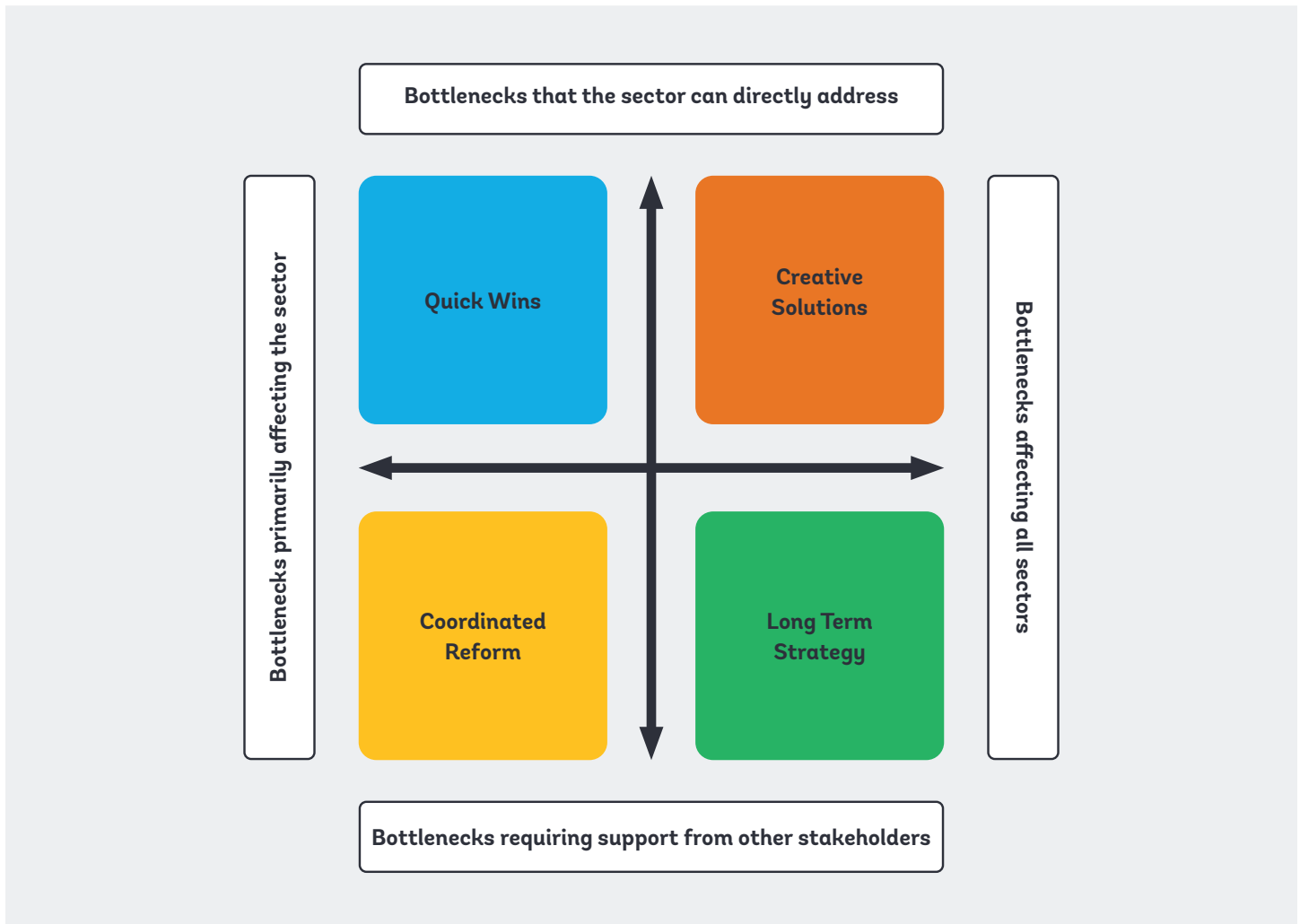
BOTTLENECK	RESOLVED CHALLENGE	STAKEHOLDERS INVOLVED	REFORM RESULT	REFORM STEPS	RESPONSIBLE
Statement agreed by all stakeholders	Agree what a resolved challenge would look like, which addresses the underlying causes and reflects desired changes in behavior.	Identify who needs to be involved in resolving the challenge. This would involve authorizers, teams, and coalitions of support.	How would you measure success in terms of results that reflects reform implementation and progress towards resolving the bottleneck?	Identify a set of key actions and responsible parties which represent steps towards resolving the problem.	Identify the lead and reform teams responsible for each step.

Some reforms are more contained within a single sector or department, others may require more support from other sectors or departments, as illustrated below in [Figure 16](#). This approach helps to discover and address areas of moral

hazard where resolving a challenge affecting one department requires input from another department that may not see any direct benefit.

> > >

**FIGURE 16 - Framework for Identifying Solutions**



- a) What would a resolved bottleneck look like? **(results/indicators)**
- b) What needs to happen to remove bottlenecks? **(actions)**
- c) How to address transversal bottlenecks? **(sequencing)**
- d) Who is involved in implementing these actions? **(feasibility)**

Not all solutions may be in the full control of an institution. It may be useful to use the matrix to categorise different bottlenecks according to their ease of remediation to aid the prioritization/ sequencing/ approach.

Not all solutions may be in the full control of a sector/institution. It may be useful to use matrix to categorise different bottlenecks according to their ease of remediation to aid prioritization/ sequencing/ approach

Source: Williamson et al. (Forthcoming).

**Examining reform design and implementation in practice helps to learn what may work in certain contexts.** West Bank and Gaza, Kenya, and Sierra Leone each have fairly different starting points, approaches and results in reform

programs covering cash management, commitment control and TSA development. Box 14 below presents how Kenya applied a collaborative, problem based and results focused approach in the development of its PFM reform strategy.

> > >

**BOX 14 - Practical Application of a Problem-Based, Results-Focused, and Collaborative Approach to Reform**

The PFM reform strategy (2018-2023) developed in Kenya has involved a collaborative, problem based and results focused approach with positive results. Initial consultation supported by a PEFA assessment identified eight results areas (RAs) representing aspects of PFM where it was agreed that challenges existed. Results teams comprised of MDAs that contribute to functions relevant to each RA convened to agree a statement of the problem and desired result, identify underlying causes, steps to address these, and responsible stakeholders at each step. MDAs were not restricted to a single RA and were encouraged to participate in any. Some, such as the budget department or accounts participated in several RAs. Among the RAs was “Results Area 3: Reliable Cash for Service Delivery and Public Investment,” with the Accounting Services Department as the lead agency. The strategy developed to tackle this challenge contained a clear statement of the desired results, the changes and planned key steps required to achieve these results within the RA, a timeframe and lead MDA for each step. The PFM Reform Secretariat then developed a tool to combine government and donor activities defined by the steps into a single workplan reflecting the strategy. The World Bank used a Program-for-Results operation to directly align disbursement-linked indicators (DLIs) with reform strategy results and provide technical assistance to support deliverables in the workplan.<sup>29</sup> The governance arrangements for the strategy involve regular review of strategy implementation by the Results Team and oversight by a Steering Committee comprising senior management.

**Table 7 on the following page arranges key information about the respective programs from the three countries to provide a framework for understanding the overall lessons on what worked, what did not, and why.**

29. Government of Kenya 2020.

**TABLE 7 - Reform Programs - What Worked and What Did Not**

INITIAL CONTEXT	APPROACH	SUMMARY OF RESULTS	WHAT WORKED	WHAT DID NOT
<b>WEST BANK AND GAZA</b>				
<ul style="list-style-type: none"> <li>• <b>Systemic over-optimistic revenue forecasts</b> and volatile revenue inflows.</li> <li>• <b>Weak fiscal framework</b> and incremental budget.</li> <li>• <b>No commitment controls</b></li> <li>• <b>Functional IFMIS connected to TSA</b> - Central Bank in a single commercial bank.</li> <li>• <b>Relatively poor demand for reform</b> and engagement despite having some capacity.</li> </ul>	<ul style="list-style-type: none"> <li>• <b>Simple forecast tool</b> (excel) developed by TA and updated monthly to inform quarterly allotments, including basic prioritization of payments and cash available by quarter, and cash buffer.</li> <li>• <b>Link tool to IFMIS/TSA</b></li> <li>• <b>Develop arrears inventory</b> and accounting tool.</li> <li>• <b>Develop commitment control functions later.</b></li> </ul>	<ul style="list-style-type: none"> <li>• <b>Limited initial uptake</b> of the original tool despite its simplicity.</li> <li>• <b>Challenge gaining broad understanding of the problem</b> led to repeated false starts.</li> <li>• <b>Perceived resistance to cash forecasting</b> in the face of very volatile inflows and concerns of revealing inflow dependence.</li> <li>• <b>Success in routine monthly forecasting</b> achieved but doesn't transmit to commitment control.</li> <li>• <b>Revision of commitment control tools to focus on 4 pilot ministries</b> after broad resistance from MDAs.</li> </ul>	<ul style="list-style-type: none"> <li>• <b>Data consolidation</b> - the existing simple arrangements for banking/TSA and functional IFMIS gave a strong base for the cash forecasting tool to be developed.</li> <li>• <b>Flexibility on CC and revision of program</b> to focus on pilot MDAs was important.</li> <li>• <b>A lot of leeway on commitment control</b> (very little intervention on limits) has made it easier to introduce reforms with MDAs.</li> </ul>	<ul style="list-style-type: none"> <li>• <b>Slower than anticipated</b></li> <li>• <b>Tool has limited ability to affect allotments/ commitments.</b></li> <li>• <b>Greater resistance to commitment control</b> than CM from MDAs resulted in a reversal of the reform and only recently more progress.</li> <li>• <b>Linking CM and CC</b> is yet to be introduced. False starts on CC and a fear of derailing cash forecasting by linking it to control is forcing caution.</li> <li>• <b>CC improvement dependent on more credible budget</b> which is weak and largely incremental.</li> </ul>

INITIAL CONTEXT	APPROACH	SUMMARY OF RESULTS	WHAT WORKED	WHAT DID NOT
<b>SIERRA LEONE</b>				
<ul style="list-style-type: none"> <li>• <b>Cash rationing</b> and no commitment control.</li> <li>• <b>Significant fiscal pressures</b></li> <li>• <b>Reasonable capacity</b> in AG</li> <li>• <b>Relatively poor relationship with revenue and debt offices</b> (and poor Central Bank liquidity/frequent poor auction results).</li> <li>• <b>Fragmented banking.</b></li> <li>• <b>IFMIS in rollout phase.</b></li> <li>• <b>Specific and sustained demand</b> for cash forecasting from AG.</li> </ul>	<ul style="list-style-type: none"> <li>• <b>Simple forecast tool</b> (excel) developed and updated weekly with a 12-week forecast.</li> <li>• <b>Strengthen consolidation and data ownership</b> through the weekly CM meeting.</li> <li>• <b>Strengthen relationship with the debt department.</b></li> <li>• <b>Strengthen integration</b> with TSA.</li> </ul>	<ul style="list-style-type: none"> <li>• <b>Positive initial uptake</b> and understanding within the AG office allowed development of basic tools.</li> <li>• <b>Routine engagement with debt and revenue units was a challenge</b> for a significant amount of time.</li> <li>• <b>Information sharing</b> is now stronger with structured reports from the debt unit.</li> <li>• <b>Coverage of the cash plan limited</b> due to the extent of operations (much donor) outside of the Central Bank.</li> </ul>	<ul style="list-style-type: none"> <li>• <b>Simplicity of tool quickly led to ownership</b> and handover within weeks of initial development.</li> <li>• <b>Marginal improvement of the figures and detail</b>, through weekly routine of compilation and regular presentation.</li> <li>• <b>Go ahead for TSA reform championed</b> by incoming administration made a sudden jump in progress, but was only possible by the technical side being ready to implement.</li> <li>- <b>TSA dramatically improved coverage</b> of the cash forecasting function.</li> </ul>	<ul style="list-style-type: none"> <li>• <b>Tool remains outside IFMIS</b> affecting ease of data transfer and compliance.</li> <li>• <b>Weak update of information in cash forecast</b> – the forecast remains closely tied to the original budget and does not incorporate regularly updated cash plans from MDAs.</li> <li>• <b>Limited effect on allotments/ commitments</b> –the use of the cash plan is limited to predicting and smoothing cash flow in the immediate weeks ahead and does not inform allotments or commitments.</li> <li>• <b>Zero/balance and clearing still weak</b> and idle balances remain high despite TSA because large volume of donor financing remains in commercial special accounts.</li> </ul>



INITIAL CONTEXT	APPROACH	SUMMARY OF RESULTS	WHAT WORKED	WHAT DID NOT
KENYA				
<ul style="list-style-type: none"> <li>• <b>Expenditure controls primarily at payment</b> rather than commitment.</li> <li>• <b>Fiscal pressures</b> including growing interest, expensive elections and demand to expand infrastructure and services.</li> <li>• <b>Relatively strong IFMIS</b> with all national MDAs using including for budgeting.</li> <li>• <b>Frequent in year budget</b> deviations and regular supplementary budgets.</li> <li>• <b>Conceptual understanding of issues</b> and high-level commitment through WB program.</li> <li>• <b>No TSA</b> in operation despite a long running effort already in place to develop the system and related links to CBK and the IFMIS.</li> </ul>	<ul style="list-style-type: none"> <li>• <b>Extensive problem identification</b> via PFM Strategy.</li> <li>• Prioritization of expenditure was a primary demand.</li> <li>• <b>MDA cash plans</b> to inform allotments built in from the beginning.</li> <li>• <b>Complex Prototype</b> (GoogleSheets) was built to integrate monthly MDA cash plans; consolidation; and CM buffer and analysis functions; and prioritization controls.</li> <li>• <b>Migration of Prototype to functions to IFMIS</b> intended after the stability of function reached in prototype.</li> </ul>	<ul style="list-style-type: none"> <li>• <b>Broadly understood problem</b> aided development of a CM Framework =&gt; strong mandate for technical staff engagement, communication.</li> <li>• <b>Inadequate permanently assigned capacity</b>, despite general capacity available in Treasury led to delays.</li> <li>• <b>Prototype tool was too complex</b> to be handed over to staff. Strategy adjusted to incorporate it in IFMIS sooner.</li> <li>• <b>Successful integration of key elements in IFMIS</b> though still lacking on analysis and automated controls.</li> <li>• <b>Weak leadership of CM committee</b> due to competing priorities in AG office.</li> <li>• <b>Resistance to change</b> in Treasury.</li> </ul>	<ul style="list-style-type: none"> <li>• <b>Transfer to IFMIS systems</b> was strengthened by collecting and modelling the full set of data required in a prototype tool, finding issues.</li> <li>• <b>Establishment of MDA cash plans as part of the system</b> allowed them to be built into the budgeting software, improving ease of use and compliance and consolidation.</li> <li>• <b>Alignment of budget, cash plan and allotment</b> is central to the design and now all within one system.</li> <li>• <b>Inclusion of a priority expenditure protocol</b> enabled automatic tagging of payment requests based on COA and pre-agreed priorities, providing information to help reduce short term decisions and automate payments (still being implemented).</li> </ul>	<ul style="list-style-type: none"> <li>• <b>Slower than anticipated.</b></li> <li>• <b>Lack of appropriate skills</b> to manage such a complex tool led to frustration and reduced trust and engagement with technical assistance.</li> <li>• <b>Tool ownership</b> was not taken up until transfer to IFMIS.</li> <li>• <b>Expectation for multiple depts</b> to engage with a complex prototype tool had limited returns.</li> <li>• <b>Lack of high-level engagement from leadership</b> undermined progress and left technical staff.</li> <li>• <b>Pressure through a DLI to produce a cash plan</b> led to a rushed and sub-par plan being prepared in parallel to the prototype tool.</li> <li>• <b>Misjudged importance of change management</b> among Treasury staff.</li> <li>- <b>No TSA</b>, though efforts increasing.</li> </ul>

## Lessons

**Full commitment from the leadership and careful timing of expenditure control reforms is important to clearly signal change and avoid false starts.** The moment cash or commitment controls or TSA reforms have tangible impact – constraints on expenditure tightened for MDAs or expected to do so – there is likely to be resistance. Subtle or overt resistance along the way is likely to slow progress where understanding is poor or information sharing either yields no effect or negative effects for MDAs. Internal, especially personal incentives may be hard to predict and even harder to pin down precisely, making full Treasury commitment a key aspect in any reforms that are likely to encounter internal vested interests. TSA reforms in Sierra Leone are a good example, where despite significant technical progress on reform it was forced to wait until the entry of a new progressive government to implement in a meaningful way. But why do these reforms have impact? The general objective of cash management to improve cash predictability does not constrain it. So why does this happen?

**Reassuring MDAs of a distinction between cash planning and expenditure control is a hard thing to do when there is a no perceived (or real) difference between the two.** In many lower income countries, commitment control is either non-existent or meaningless and controls occur at payment stage. Best practice suggests MDA cash plans should inform cash management, but not overall expenditure control and MDAs will be wary to share information if they believe it will be used for expenditure control (Lienert 2009). Communication of this distinction is important, especially in circumstances where the concepts are new. Essentially, incentives around information sharing for cash management should get easier once expenditure controls can be clearly separated from it.

**An unreliable budget undermines the credibility of allotments and commitment control.** Allotments will need to be lower than the appropriated budget if they are to be credible in any situation where revenues are systematically overoptimistic, or budget execution is subject to unplanned additional expenditures. Whether this is achieved through creating a buffer between cash plans/allotments and the budget ceilings or through in-year reallocation of budget - where the budget is not credible, the perception from MDAs will always be that information sharing may affect cash availability, largely because it is true. MDAs that expect to be prioritized have no incentive to share cash plans, and those that do not are demotivated from preparing them. Addressing this is a challenge as it ultimately involves developing trust between the institutions. This can be generated over time through consistency between the cash plan and cash allocation. Communication and awareness raising by the Treasury is also

likely to be beneficial, whilst regulation to require information sharing may provide a necessary push and create a level playing field between institutions, if enforced consistently.

**Tying cash plans too closely to allotments in these circumstances creates structural disincentives to share information.** Case study countries have addressed this by first introducing technical reforms with limited immediate impact on MDAs. Being careful to avoid real or perceived influence of information sharing on cash availability to execute their budget has made capacity building easier. For example, establishing cash forecasting functions that have little or no effect on commitment controls is relatively easy to do. Of course, this is not achieving the objectives of reform or resolving the problems, because cash availability is only a little smoother and arrears are still rising. What it does do is allow the technical capacity to be in place when the political will to implement emerges. The more credible a budget is, the easier it may be to introduce the constraints as it will have a less negative effect on those MDAs that might have benefitted from a less credible budget, and therefore also less likely to raise resistance from them.

**Solutions for cash forecasting really depend on what the country is trying to achieve.** Kenya, Sierra Leone, and West Bank and Gaza each embarked on cash management reforms, but the objectives of each of the reforms were different. In Kenya, the primary objective was to develop an aggregate cash plan derived from MDA plans to inform prioritization, with a secondary objective of updating the plan in-year from forecast data and actuals. In Sierra Leone and West Bank and Gaza, the primary objective was to establish in-year forecasting capabilities to help inform cash management decisions, with the introduction of MDA cash plans a later addition to the reform. In Sierra Leone and West Bank and Gaza the reform steps included improving basic capacity benefits from starting simple, developing more functions slowly over time, establishing clear roles, and slowly improving liaison and trust with the debt and budget departments and the Central Bank. In Kenya, a goal of influencing allotments through better connection of cash plans with the budget and technical solutions to allow more granular prioritization of payments embedded in the IFMIS system led to a more ambitious tool and functions to align MDA plans with service delivery priorities, but less consensus building around the forecast and sharing of data for cash management decisions. Forecasting outcomes were better in Sierra Leone and West Bank and Gaza, but the infrastructure for cash planning and actively using the cash plan to inform cash management during budget execution was better in Kenya.

**Extensive consultation, establishment of broad**

**understanding of the issues across multiple agencies (starting with the Treasury), and careful attention to change management will help build trust among the Treasury, other key departments, and MDAs.** A cash management framework or multi-institutional terms of reference that are fully understood and designed to be flexible and grow as the institutions and functions develop has proven an effective tool to strengthen cooperation (See Annex 6). Misunderstanding of the objectives of cash management, unwillingness to share information, and mistrust has occurred for years in most of the case study examples, delaying progress for far longer than anticipated.

**Ex-ante agreement between MDAs and the Treasury on expenditure priorities within the budget helps to identify which payments to protect in the event of a cash shortfall.**

Statutory expenditures such as salaries, interest payments, and international obligations are typically prioritized as default. Identification of priority service delivery programs by MDAs helps the Treasury to be more targeted in delaying payments and maintain smooth payments to key services. It also helps to detach the Treasury from short term payment decisions and ad hoc pressure from MDAs. It is important to consider going beyond a binary “non-discretionary” and “other” in this schema to enable key service delivery expenditures and investments to be prioritized after payroll and other statutory items and before “other.” Attaching this prioritization to the budget, allotments and commitments via the Chart of Accounts allows it to be automated and limits opportunity for negotiation. Kenya has designed a process to deliver this which is currently being implemented within the IFMIS system. Technical delivery is certainly more complex than a simple cash forecasting tool, but the messaging around how prioritization of commitments is made, and assuring MDAs that cash plans do not inform expenditure control but that it is the budget that does so via agreed priority items, are the keys to success.

**A TSA is essential in revealing available cash and enabling more efficient management, but its benefits can only be fully realized if upstream functions are reliable, particularly a credible revenue forecast, a realistic budget, and commitment controls.** Experience from Sierra Leone, where there have been significant steps towards a TSA, shows that progress is feasible even in a context where government-wide capacity is relatively poor, but the core team in Treasury is capable and committed and the leadership is supportive. However, improved data on bank balances does not translate to immediately improved cash management. Much of the idle balances, now visible through the TSA framework, still cannot be consolidated as they are largely donor or other protected funds. Furthermore, while the TSA

does help with predicting cash availability, and the improved relationship with the debt office enhances the tools available to smooth spending, optimistic revenue, unrealistic budgets, and a lack of commitment control still causes structural gaps between inflows and outflows, and cash rationing is required.

**Reducing the prevalence of protected funds requires a minimum threshold of credibility, transparency, and consistency of partner country PFM systems to gain the trust of donors and other funders, but the World Bank can help to strengthen systems as this trust is being developed.** Commitments from donors and particularly the World Bank to map project accounts to the TSA in a structured and consistent way across all projects in all sectors will help to initially reveal the available cash, as it has done in Sierra Leone.

Once this is in place, development of a progressive program of transferring cash management functions to the Treasury based on performance in transparency and management of accounts under the TSA could be considered. This exercise requires significant coordination and change management within the World Bank to encourage TTLs managing sector projects to commit to “less protected” funding arrangements in a coordinated manner. This may be best delivered through piloting with one or two key sectors as it has in Bangladesh, with a major focus on change management for both the government and World Bank program management.

## 3.2 Provision of Technical Support

**A combination of technical support and reform facilitation in the form of ASA facilities is most appropriate for supporting cash management and commitment control reforms.** This should be provided at the following levels:

- Direct technical support in the form of developing tools, legislation, and guidelines.
- Support to facilitate cross-departmental coordination, problem identification, and implementation of solutions.
- Senior management engagement to strengthen the authorizing environment.

**An important focus is to ensure that support is problem-driven rather than solution-driven.** This may take more work and will almost certainly take more time than developing blueprint-based, solution-driven programs of technical assistance as significant consultation in program design and regular consultative review during implementation will be required. Benefits are greater transfer of knowledge to government officials in the design phase, a program of work

more aligned with the problems faced by the government, and an approach that is flexible and able to react and adjust strategy as lessons are learned during implementation. Support should be designed to crowd in other development partners. This can be achieved through developing common workplans, scheduling joint missions, and coordinating areas of focus and mission schedules.

**Technical assistance (TA) programs that are closely aligned to major lending instruments have the potential to be influenced by them as discussed in the following section.** DLIs are used as policy levers to incentivize governments to enact reforms. Importantly, governments may be incentivized to accept TA programs with objectives aligned to certain DLIs even when they are not fully committed to delivering on these areas. Careful monitoring of TA programs operating in areas with poor government commitment will allow adjustments to better align incentives. However, in some cases, it may be preferable for non-Bank TA to participate or lead on the area of work if the independence is likely to be considered more trustworthy. For example, cash management support to the Accountant General in Sierra Leone from the International Monetary Fund's AFRITAC and the Overseas Development Institute – with no direct link to a financing instrument – were both quickly able to gain a position of trust within the Treasury. The cash management support elsewhere, which was provided by the World Bank and directly aligned to the delivery of a DLI did experience setbacks where pressure to meet the DLI was misaligned with efforts to develop capacity and systems, and communication between officials and TA experienced setbacks and weakened trust.

### 3.3 Operations – How to Use DPOs, PforRs and IPFs<sup>30</sup> to Support Change

**Using combination of Bank financing instruments for the roles they are best equipped to support is necessary to create the right incentives for decision making alongside capacity support.**

- ASAs and conventional IPF (projects) that finance reform

inputs (TA, systems, capacity) – but may not incentivize their implementation.

- DPOs (Budget Support) will be used to deliver major policy decisions and as levers to create the enabling environment (for example. Law, regulations, TSA)
- PforRs and IPFs with Performance-Based Conditions may be used to create incentives for implementation of cash management and commitment control actions, policies, and systems.

**Kenya recently designed several programs along these lines. A PforR (GESDeK) used the program design process to identify problems and solutions to those problems, and the stakeholders to deliver reform.** Solutions included improving revenue projections, strengthening aggregate cash planning, and delivering reliable cash to service delivery agencies. Subsequently, the PFM reform strategy was revised, building on this problem-based approach. A DPO helped strengthen the authorizing environment for reform, by setting out prior actions including the approval of a cash management framework. Finally, TA facilities were developed in collaboration with the PFM Reform Secretariat and other development partners to support systems and capacity development in cash forecasting and cash planning tools.

**The specific type of instrument used in other Bank sectors can influence cash management reforms.** During efforts to establish a TSA in Bangladesh, MDAs were more inclined to close special purpose accounts in commercial banks and reduce fragmentation where PforR instruments were used in sector programs rather than project-based operations. Given the breadth of Bank sectoral operations in most countries, coordination between sector programs, and TSA reforms to optimize the banking reforms will likely help the implementation of both.

30. DPO - Development Policy Operation; PforR – Program-for-Results; and IPF - Investment Project Financing are different types of World Bank financing instruments.



## Bibliography

Arslan, Y., Mathias Drehmann, and Boris Hoffmann. 2020. *Central bank bond purchases in emerging market economies*. Basel: Bank for International Settlements. <https://www.bis.org/publ/bisbull20.pdf>

Aslan, C.; Artan Ajazaj, and Shurufa Abdul Wahidh. 2018. *Study on Public Debt Management Systems and Results of a Survey on Solutions Used by Debt Management Offices*. Policy Research Working Paper No. 8544. Washington, DC: World Bank. <https://openknowledge.worldbank.org/handle/10986/30234>.

Cangoz, M., and Leandro Secunho. 2020. *Cash Management: How do Countries Perform Sound Practices*. Washington DC: World Bank. <https://openknowledge.worldbank.org/handle/10986/34674>

Cruz, P. and Fatos Koc. 2018. *The liquidity buffer practices of public debt managers in OECD countries*. Paris: OECD Publishing. <https://doi.org/10.1787/3b468966-en>.

Dener, C. 2013. *Rapid Assessment of Treasury Single Account Operations and Payment Systems*. Washington, DC: World Bank.

Fainboim Yaker, I., and Ian Lienert. 2018. *The Macrofiscal Function and its Organizational Arrangements*. Washington, DC: IMF.

Fainboim Yaker, I., Sandeep Saxena, and Mike Williams. 2020. *How to Develop a Framework for the Investment of Cash Surpluses*. Washington, DC: IMF.

Flynn, S., Delphine Moretti, and Joe Cavanagh. 2016. *Implementing Accrual Accounting in the Public Sector*. Washington, DC: IMF.

Folscher, A., Isaac Liabwel, Sareen Malik, Samuel Moon, and Lotte Feuerstein. 2019. *Pipes, Policy and Public Money: Integrity in Water Sector Public Financial Management in Kenyan Counties*. Berlin: KEWASNET and Water Integrity Network,

- Government of Kenya. 2020. *Public Financial Management Reform (PFMR) Strategy 2018-2023*. Nairobi: National Treasury.
- Government of Sierra Leone. 2018. Executive Order No. 1: Implementation of a Treasury Single Account. Freetown: Government of Sierra Leone.
- Hadley, S., and Bryn Welham. 2016. *The Ministry of Finance 'Challenge Function': A public financial management introductory guide*. London: Overseas Development Institute.
- Hashim, A., and Alistair J. Moon. 2004. *Treasury Diagnostic Toolkit*. World Bank Working Paper no. 19. Washington, DC: World Bank.
- Hurcan, Y., Fatos Koc, and Emre Balibek. 2020. *How to Set Up a Cash Buffer - A Practical Guide to Cash Buffer Policy*. Washington, DC: IMF.
- International Monetary Fund. 2014. *Government Financial Statistics Manual 2014*. Washington, DC: IMF.
- International Monetary Fund. 2017. "Debt Sustainability Analysis" Washington, DC: IMF. <https://www.imf.org/external/pubs/ft/dsa/>
- Jácome, L. I., Marcela Matamoros-Indorf, Mrinalini Sharma, and Simon Townsend. 2012. *Central Bank Credit to the Government: What Can We Learn from International Practices?* Washington, DC: IMF.
- Lienert, I. 2009. *Modernising Cash Management*. Washington, DC: IMF.
- Magnusson, T., Abha Prasad, and Ian Storkey. 2010. *Guidance for Operational Risk Management in Government Debt Management*. Washington, DC: World Bank. <https://openknowledge.worldbank.org/handle/10986/27822>.
- Miller, M., and Sierd Hadley. 2016. *Cash management in cash-constrained environments*. London: Overseas Development Institute.
- Ministry of Finance, Indonesia. 2014. *Cash Management Reform in Indonesia: Making the State Money Work Harder*. Jakarta: Ministry of Finance.
- Mu, Y. 2006. *Government Cash Management: Good Practice and Capacity Building Framework*. Washington, DC: World Bank.
- Pattanayak, S. 2016. *Expenditure Control: Key Features Stages and Actors*. Washington, DC: IMF.

Pattanayak, S. (n.d.) "Government Accounting Framework," <https://blog-pfm.imf.org/files/government-accounting-framework.pptx>. Accessed: 26 Feb 2021.

Pattanayak, S., and Israel Fainboim Yaker. 2011. *Treasury Single Account: An Essential Tool for Cash Management*. Washington, DC: IMF.

Pessoa, M., and Mike Williams. 2012. *Government Cash Management: Relationship between Treasury and Central Bank*. Washington, DC: IMF.

Potter, B., and Jack Diamond. 1999. *Guidelines for Public Expenditure Management*. Washington, DC: IMF.

Radev, D., and Pokar Khemani. 2009. *Commitment Controls*. Washington, DC: IMF.

Simson, R., and Bryn Welham. 2014. *Incredible Budgets: Budget Credibility in Theory and Practice*. London: Overseas Development Institute. <https://odi.org/en/publications/incredible-budgets-budget-credibility-in-theory-and-practice/>.

Storkey, I. 2001. *International Cash Management Practices*. Wellington: Storkey and Co.

Storkey, I. 2003. "Government cash and treasury management reform." Manila: Asian Development Bank

Tello, G. 2021. "Using Data Analytics to Enhance Cash Management." Washington, DC: IMF. <https://blog-pfm.imf.org/pfmblog/2021/02/-using-data-analytics-to-enhance-cash-management-.html>. Accessed on 25 February 2021.

Williams, M. 2010. *Government Cash Management: Its Interaction with Other Financial Policies*. Washington, DC: IMF.

Williamson, T. et al. (Forthcoming) *GovEnable: Towards a Framework for Governance Engagements which Enable Development Results*. Washington, DC: World Bank.

World Bank. 2020. *Kenya Public Expenditure Review Module 1: Options for Fiscal Consolidation after the COVID-19 crisis*. Nairobi: World Bank.

World Bank. 2013. *West Bank and Gaza – Budget Execution and Cash Planning Technical Assistance Report*. Ramallah: World Bank.

World Bank. 2015. *Debt Management Performance Assessment Methodology*. Washington, DC: World Bank.

World Bank and International Monetary Fund. 2009. *Developing a Medium-Term Debt Management Strategy (MTDS): Guidance Note for Country Authorities*. Washington, DC: World Bank.

## Interviews

Matheka, L. and Mwangi, D. World Bank Office, Kenya: Virtual, 24 March 2021.

Dorji, R. World Bank Office World Bank Office, Bhutan: Virtual, 23 April 2021.

Messali, P. World Bank Office, Portugal. (Subject: West Bank and Gaza): Virtual, 9 March 2021.

Hussain, R. World Bank Office, West Bank and Gaza: Virtual, 1 April 2021.

Chowdhury, H. World Bank Office, Bangladesh: Virtual, 14 April 2021.

Rama Krishnan, V. World Bank Office, Zambia: Virtual, 16 March 2021.





# Annex 1. Glossary

This glossary quotes definitions from existing literature where available. Not all countries or studies use identical definitions for these terms. Where possible, variations in the terminology are indicated.

**Allocation:** A process of distributing budget between MDAs within a fixed ceiling tied to the resources available macrofiscal framework. The term may be used generally or, in some countries carries a more formal or legal meaning related to approved distribution of budget. *Note: The term **allocation** or quarterly allocation is used interchangeably with the term allotment in some countries. This will make it consistent with Warrant/Release, the instrument of authority given by the Treasury to MDAs to commit and/or spend a portion of the budget (allotment). Other variations exist: in Kenya, the term used is “authority to incur expenditure (AIE),” which is more like a Warrant/Release; and in South Asia, a “sanction” of payment.*

**Allotment:** Budget allotment refers to a portion of the budget or “provision” made available for release by the Treasury to a given MDA during a given period of the financial year, often quarter. Cash allotment refers to a fixed amount of available cash set aside for a budget provision. Allotments are designed to both ensure cash is available for budgeted expenditure and prevent MDAs incurring expenditures beyond the available resources. The amount usually has defined sub-limits by economic item or other COA classification and is informed by MDA cash and procurement plans rather than pro-rata. In some countries the term may specifically refer to the apportionment of authorization within an MDA to spending units. We will use allotment as a general term in this text (Pattanayak 2016).

**Arrears:** Outstanding obligations that the government has failed to pay within an agreed time frame. The acceptable time frame may be specified in the country’s PFM legislation, though this is not always the case. The IMF sometimes uses non-payment periods to define an arrear, such as 45 days or 60 days after the date on which goods or services have been delivered and accepted (ODI 2016).

**(Budget) Appropriation:** The funds legally approved by the legislature for expenditure by an MDA during a financial year. While an MDA may have the legal right to spend these funds in the course of the fiscal year, they may not make any commitments against the appropriation until the Treasury authorizes them to do so via an *allocation/allotment/warrant/release*.

**Cash:** Refers to currency and transferrable deposits held on demand by government institutional units with a bank or

another financial institution. Cash equivalents are defined to be highly liquid investments that are readily convertible to cash on hand (IMF GFS 2001, 2014).

**(MDA) Cash Plan or Budget Profile:** The agreed expenditure profile across the year, usually monthly, of the approved annual budget. The profile may be the basis for the release of spending authority and is used to monitor and control execution of the budget. The cash plan is typically prepared by MDAs to reflect their cash requirements and should be aligned with the commitment and procurement plans.

**Aggregate Cash Plan (ACP):** The planned pattern (usually monthly) of all government cash flows across the year. It aggregates the flows contained in MDA cash plans and incorporates financing.

**Cash Flow Forecast:** The best estimate of cash availability update on a regular basis, ideally daily and at least weekly for the forthcoming quarter. Designed to identify what will happen, not what should happen, and needs to be an unbiased and unconstrained best estimate. The two series (ACP and forecast) will often diverge as the budget year unfolds. The cash forecast should help inform changes to the ACP.

**Cash Rationing:** Controlling expenditure at the point of payments. This practice occurs when commitment control is unavailable, and entails selecting outstanding invoices to pay or delay to stay within central bank overdraft limits. Without controls on commitments, any de facto conditional obligations may become payable upon completion of contracts. Where cash reserves are not sufficient to honor the payables due, they become arrears and usually accrue interest and/or other fees.

**Commitment:** A conditional obligation entered into by a MDA to make a future payment, subject to the fulfilment of pre-agreed conditions. Commitments may be for one payment or **specific commitment**, for example, the procurement of a consignment of drugs or a set of payments – **continuing commitments** such as staff salaries (ODI 2016, Radev and Khemani 2009).

**Commitment Control:** The management and limitation of commitments to ensure the payments can be honored in full and on time. The key objective of commitment control is to manage the initial incurrence of obligations, rather than the subsequent cash payments, in order to enforce expenditure ceilings and avoid expenditure arrears (Radev and Khemani 2009).

**Cost of Carry:** The cost of keeping excess of cash in government accounts, given that borrowing cost tends to be higher than the return of the investment of these resources, if any. In a non-strict sense, it could be compared as the opportunity cost of “unused” cash, in net terms (Cangoz and Secunho 2020).

**Debt (Borrowing) Plan:** An annual plan of aggregate domestic borrowing that is based on the annual budget and cash flow forecasts. The borrowing plan should be broken down on a monthly basis to align with cash plans and support the ACP. The annual plan should be made public and a short-term (three-month) borrowing calendar for wholesale instruments (excluding T-Bills issued for monetary purposes) derived from the plan, with dates, instruments, indicative amounts for each instrument should be published regularly (World Bank 2015).

**Debt Strategy:** A medium term plan that outlines the government’s approach to achieving the desired composition of the government debt portfolio, and captures the government’s preferences with regard to the tradeoffs between costs and risks of the available debt instruments. It is informed by the debt sustainability analysis, and it informs the annual borrowing plan. It is developed in collaboration between the macrofiscal and debt management functions of the government (World Bank and IMF 2009).

**Debt Sustainability Analysis:** A key fiscal and budgetary policy tool usually utilized by the Treasury’s macroeconomic department to assess the long term sustainability of the future debt path under certain macroeconomic assumptions (World Bank 2015). The objective is to assess the current debt, its holders, interest rates, and maturity structure in order to identify and inform policy to minimize risks to the government or prospective lenders (IMF 2017).

**Disbursement:** Transfers in cash. These may not necessarily be to the final recipient or vendor, but include payments to MDA sub-accounts or commercial accounts that are intermediaries before the cash is transferred to its intended final recipient in exchange for goods or services rendered, capital investments, or other government expenditure. Use of these is minimized in a TSA arrangement.

**(Actual) Expenditure:** Final account of spent funds after payments have been made and any surplus cash has been returned to the TSA or other government account. This is important in countries that do not operate zero-based TSA accounts and particularly in those that disburse lump-sum funds to MDA accounts at any point prior to the payment phase.

**Expense voucher** (also *Payment Voucher*): A document which confirms that payment will be made against a given purchase order following necessary approvals. This effectively triggers the payment, mostly through the Central Bank or through a check for the seller to cash (ODI 2016).

**Imprest:** A “petty cash” or other system of accounting whereby a fixed balance of readily available money is maintained for small purchases and replenished after it has been spent. For example, a school may keep \$100 in reserve and top up this reserve on a monthly basis if any or all of the money is spent (ODI 2016).

**MDA:** A Ministry, Department, or Agency. These represent the highest tier of spending authority across government. Funds in the national budget are typically appropriated by the legislature at this level and the senior accounting officer receives authorization for incurring expenditure during the financial year. (also: *spending agency or Vote*).

**Obligation:** A request to the Treasury by an MDA for payment of an invoice supported by an expense voucher (EV, a warrant to incur expenditure), a purchase order (PO), contractual obligations with the supplier, or acknowledgement of receipt of goods (GNR). At this point, the conditional liability becomes a liability.

**Payment:** A transfer in cash that exits accounts under government control to the benefit of a vendor or other external party in exchange for agreed and verified goods or services rendered, investments, or other government expenditure.  
**Purchase order:** An official offer issued by the government to a seller or supplier, indicating types, quantities and prices for goods or services to be provided (ODI 2016).

**Repo transactions:** The temporary sale of a (government) security associated with the seller’s commitment to purchase it back, after a pre-defined period and at a pre-agreed price. Governments use repos to cover temporary cash shortages by delivering a government security to the lender. Repos provide good flexibility and, in most cases, are used for periods not longer than the time span between T-bills auctions (Cangoz and Secunho 2020).

**Requisition:** The formal request by an MDA for permission to spend against the allotment. Once approved, the Treasury will set aside resources or “tie” the funds to ensure resources will be available for the forthcoming payments. The approved requisition allows a purchase order to be prepared by an MDA.  
**Transit accounts:** These accounts are not meant for day-to-day transaction banking operations of government units. A

transit account simply serves as a transit for eventual flow of cash into the TSA main account. Transit accounts might be necessary: (i) for major revenue streams to monitor their collection and remittance by the banking system; and (ii) to facilitate revenue sharing (formula-based sharing from a common pool of resources) between tiers of government in a federal system in line with constitutional and/or legal requirements (Pattanayak and Fainbom 2010).

**Treasury:** This can refer to the name of a country's finance ministry (e.g. the Treasury in the UK or in New Zealand). However, for the purposes of discussing cash management it refers to the specific department or division within government (often part of a finance ministry itself) that handles payments, monitors and tracks expenditure, and manages government's financial accounting and reporting. In Anglophone countries, responsibility for this function often lies in the "Accountant General's Department" (ODI 2016).

**Treasury bill (T-bill):** A short-term debt instrument that is issued by a government and which will be redeemed within one year. Treasury bills do not pay interest but are sold at a "discount," meaning there is a difference between the value paid by the government on redemption (e.g. \$100) and the amount actually paid by the purchaser to buy the bill, e.g. \$95). The discount (e.g. \$5) represents the cost to government and the profit of the purchaser. Treasury bills are traded on the "money market" (ODI 2016).

**Treasury bond:** A debt instrument that is issued by a government and which will be redeemed after a period of a year or more. A bond will typically pay a fixed rate of interest (often called a "coupon") at regular intervals (e.g. every six months or every year) until the end of the bond period, at which point the government will repurchase the bond for an agreed price. Treasury bonds are usually traded on the "capital market," which includes debt and equity markets (ODI 2016).

**Treasury Single Account (TSA):** The Treasury's account with the Central Bank which consolidates the government's cash position. It is the **main TSA account** when the TSA arrangement in a particular country consists of a set of linked accounts. Cash balances in all other linked accounts are swept into this account. In other words, all government receipts finally flow into, and all disbursements are met from, the central TSA account. **TSA Subsidiary accounts** are not separate bank accounts per se, in the sense of holding individual cash balances, but are special sub-accounts within the main TSA account. This is an accounting arrangement to group together a set of transactions and allows the government to maintain the distinct accounting identity or ledger of its budget organizations (line ministries/agencies) effectively. A cash disbursement ceiling for each entity can be enforced against these ledgers. Balances in these accounts are netted off with the TSA main account for cash management purposes (Fainbom and Pattanayak 2010).

**Warrant/Release:** The instrument of authority given by the Treasury to MDAs to commit and/or spend a portion of the budget (allotment). The officer authorized by the warrant may extend sub-warrants to units within the MDA. The use of cash releases is more common in anglophone cash-based systems and may differ from the allotment based on the availability of cash – usually to "trim" non priority expenditure in the event of a cash shortfall (Lienert 2009, ODI 2016).

**Zero balance account (ZBA):** An account in which a balance of zero is maintained. When payments are made from the ZBA, funds equal to the value of those payments are automatically transferred from a master account, so the net balance in the ZBA remains zero (ODI 2016).



# Annex 2. Further Technical Resources and Tools

March

February

# Key Technical Guidance

## Key Reference Material

[Modernising Cash Management](#) – An overview of the objectives and essential functions of cash management with a review of best practices, challenges in low- and middle-income countries and suggestions for approaching reforms (Lienert 2009).

[Cash Management and Other Financial Policies](#) – Guidance on the role of cash management within a broader set of financial policies and the interactions and relationships necessary for expanding the sophistication of cash management functions. A particular focus on the coordination with debt management (Williams 2010).

[Expenditure Controls](#) – Technical Guidance Note (TGN) on the government expenditure process and controls at each stage designed to help practitioners identify areas of weakness and identify priorities for strengthening (Pattanayak 2016).

[Commitment Controls](#) – Guidance on the role of commitment control in the broader expenditure control framework and its importance in controlling the accumulation of arrears (Radev and Khemani 2009).

[Treasury and Central Bank Coordination](#) – Overview of the institutional arrangements between the two institutions for streamlining cash management and monetary policy operations. (Pessoa and Williams 2013).

[Accrual Accounting](#) – Overview of Accrual Accounting and factors to consider in preparing for transition from different starting points (Flynn Moretti and Cavanagh 2016).

[Treasury Single Account](#) – Guidance on the concept of a TSA, which problems it may be able to solve, and practical considerations in design and implementation (Pattanayak and Fainboim 2011).

## Further Guidance on Specific Functions

[Developing and Implementing a Cash Buffer](#) – A practical guide to strengthening risk management in times of crisis through a cash buffer policy – when it may be appropriate, drawbacks and practical examples from the COVID period.

[Investment of Cash Surpluses](#) – Identifying when investment of cash surpluses may be appropriate, the risks involved and practical examples of how it can be implemented.

[Debt Management System Survey](#) – Guidance and practical examples for emerging and developing countries in differentiating between mandatory and desirable functions and approaches for context specific strategies for debt management system development and integration with other PFM functions including cash management functions (Aslan, Ajazaj and Wahidh 2018).

## Diagnostic tools

[Assessment of TSA Operations](#) – A toolkit for rapid assessment of the current status of a TSA and identification of possible improvements to inform PFM reform programs (Dener 2013).

[Treasury Diagnostic Toolkit](#) – A tool to identify the status of Treasury functions including cash management, commitment control and payments and provide guidance for reform programs. Includes a detailed annex on Treasury function processes.

[Public Financial Management and Accountability \(PEFA\) Assessments](#) – The widely used and recognized assessment framework that includes key diagnostics on a broad set of PFM functions that affect cash management and commitment control (PEFA Secretariat 2016).

[Debt Management Performance Assessment](#) – A World Bank toolkit and library of past assessments for diagnosing government debt management practices and institutions, including the interaction with monetary policy, cash flow forecasting, and managing cash balances (World Bank 2015).



## Annex 3. Template of a Simple Annual Cash Plan

57920	414264		
215720	5498216		
326225		58742	
255021			221233
245755	32154316	3322144	
154756	1245755	32366987	322
320659	2154756		2125
221233	32659	121554	

### 3a. Template Annual Cash Plan

	BUDGET	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
<b>TSA OPENING BALANCE</b>	<b>A</b>	0	0	0	0	0	0	0	0	0	0	0	0	
<b>Revenue</b>														
Tax	B													0
Non-Tax Revenue	C													0
Grants	D													0
<b>TOTAL INFLOWS</b>	<b>E=B+C+D</b>	0	0	0	0	0	0	0	0	0	0	0	0	0
<b>Expenditure</b>														
<b>Statutory Items</b>	<b>F</b>	0	0	0	0	0	0	0	0	0	0	0	0	0
Domestic Interest														0
External Interest														0
Wages and Salaries														0
Statutory Transfers														0
Other Statutory														0
<b>Other Recurrent</b>	<b>G</b>	0	0	0	0	0	0	0	0	0	0	0	0	0
Goods and Services														0
Other Transfers														0
<b>Development (Capital)</b>	<b>H</b>	0	0	0	0	0	0	0	0	0	0	0	0	0
Domestic Development														
External Development														
<b>TOTAL OUTFLOWS</b>	<b>I=F+G+H</b>	0	0	0	0	0	0	0	0	0	0	0	0	0
<b>CASH BALANCE</b>	<b>J=E-I</b>	0	0	0	0	0	0	0	0	0	0	0	0	0
<b>Financing</b>														
<b>Net Domestic Financing</b>	<b>K</b>	0	0	0	0	0	0	0	0	0	0	0	0	0
Domestic Financing														0
Overdraft														0
<b>Net External Financing</b>	<b>L</b>	0	0	0	0	0	0	0	0	0	0	0	0	0
Commercial Loans														0
Foreign Loans														0
<b>TOTAL FINANCING</b>	<b>M=K+L</b>	0	0	0	0	0	0	0	0	0	0	0	0	0
<b>TSA CLOSING BALANCE</b>	<b>N=A+J+M</b>	0	0	0	0	0	0	0	0	0	0	0	0	0



### 3b. Filled Example of Annual Cash Plan Template

	BUDGET	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
<b>TSA OPENING BALANCE</b>		20	14	37	1	12	13	29	66	80	60	45	64	
<b>Revenue</b>														
Tax	600	30	30	30	40	40	80	100	50	50	50	50	50	600
Non-Tax Revenue	240	10	20	30	10	20	30	10	20	30	10	20	30	240
Grants	160		40			40			40			40		160
<b>TOTAL INFLOWS</b>	<b>1000</b>	<b>40</b>	<b>90</b>	<b>60</b>	<b>50</b>	<b>100</b>	<b>110</b>	<b>110</b>	<b>110</b>	<b>80</b>	<b>60</b>	<b>110</b>	<b>80</b>	<b>1000</b>
<b>Expenditure</b>														
<b>Statutory Items</b>	<b>420</b>	<b>31</b>	<b>31</b>	<b>42</b>	<b>31</b>	<b>31</b>	<b>44</b>	<b>31</b>	<b>31</b>	<b>42</b>	<b>31</b>	<b>31</b>	<b>44</b>	<b>420</b>
Domestic Interest	20	1	1	2	1	1	4	1	1	2	1	1	4	20
External Interest	36	3	3	3	3	3	3	3	3	3	3	3	3	36
Wages and Salaries	300	25	25	25	25	25	25	25	25	25	25	25	25	300
Statutory Transfers	40			10			10			10			10	40
Other Statutory	24	2	2	2	2	2	2	2	2	2	2	2	2	24
<b>Other Recurrent</b>	<b>240</b>	<b>20</b>	<b>20</b>	<b>20</b>	<b>20</b>	<b>20</b>	<b>20</b>	<b>20</b>	<b>20</b>	<b>20</b>	<b>20</b>	<b>20</b>	<b>20</b>	<b>240</b>
Goods and Services	180	15	15	15	15	15	15	15	15	15	15	15	15	180
Other Transfers	60	5	5	5	5	5	5	5	5	5	5	5	5	60
<b>Development (Capital)</b>	<b>440</b>	<b>2</b>	<b>24</b>	<b>50</b>	<b>20</b>	<b>50</b>	<b>48</b>	<b>16</b>	<b>40</b>	<b>38</b>	<b>28</b>	<b>46</b>	<b>78</b>	<b>440</b>
Domestic Development	320		20	40	10	30	40	10	30	30	20	30	60	320
External Development	120	2	4	10	10	20	8	6	10	8	8	16	18	120
<b>TOTAL OUTFLOWS</b>	<b>1100</b>	<b>53</b>	<b>75</b>	<b>112</b>	<b>71</b>	<b>101</b>	<b>112</b>	<b>67</b>	<b>91</b>	<b>100</b>	<b>79</b>	<b>97</b>	<b>142</b>	<b>1100</b>
<b>CASH BALANCE</b>		<b>-13</b>	<b>15</b>	<b>-52</b>	<b>-21</b>	<b>-1</b>	<b>-2</b>	<b>43</b>	<b>19</b>	<b>-20</b>	<b>-19</b>	<b>13</b>	<b>-62</b>	
<b>Financing</b>														
<b>Net Domestic Financing</b>	<b>38</b>	<b>7</b>	<b>8</b>	<b>11</b>	<b>2</b>	<b>2</b>	<b>-2</b>	<b>-5</b>	<b>-3</b>	<b>0</b>	<b>4</b>	<b>6</b>	<b>8</b>	<b>38</b>
Domestic Financing	38	6	7	8	2	2		-3	-2		4	6	8	38
Overdraft	0	1	1	3			-2	-2	-1					0
<b>Net External Financing</b>	<b>62</b>	<b>0</b>	<b>0</b>	<b>5</b>	<b>30</b>	<b>0</b>	<b>20</b>	<b>-1</b>	<b>-2</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>10</b>	<b>62</b>
Commercial Loans	2			5				-1	-2					2
Foreign Loans	60				30		20						10	60
<b>TOTAL FINANCING</b>	<b>100</b>	<b>7</b>	<b>8</b>	<b>16</b>	<b>32</b>	<b>2</b>	<b>18</b>	<b>-6</b>	<b>-5</b>	<b>0</b>	<b>4</b>	<b>6</b>	<b>18</b>	<b>100</b>
<b>TSA CLOSING BALANCE</b>		<b>14</b>	<b>37</b>	<b>1</b>	<b>12</b>	<b>13</b>	<b>29</b>	<b>66</b>	<b>80</b>	<b>60</b>	<b>45</b>	<b>64</b>	<b>20</b>	



#### 4a. Example of Chart of Accounts Economic Segment for Assets (Bangladesh)

ECONOMIC SEGMENT						
Type (Level-1)	Category (Level-2)	Sub-Category (Level-3)	Item (Level-4)	Sub-Item (Level-5)	Details (Level-6)	Description
1 Digit	1 Digit	1 Digit	1 Digit	1 Digit	2 Digit	
7						<b>Assets</b>
	72					<b>Financial assets</b>
		721				<b>Domestic financial assets</b>
			7211			<b>Monetary gold and Special Drawing Rights (SDRs)</b>
				72111		Monetary gold
				72112		Special drawing rights
			7212			<b>Currency and deposit</b>
				72121		<b>Treasury Single Account (TSA)</b>
					7212101	<b>Bangladesh Bank</b> deposit
					7212102	World Bank Special Account
					7212103	ADB Special Account
				72122		<b>Non-TSA account</b>
					7212201	Bank deposit
					7212202	World Bank Special Account
					7212203	ADB Special Account
				72123		<i>Cash in hand</i>
					7212301	Cash in hand
					7212302	Bank deposit (Non- TSA)
				72124		<i>Cash in transit</i>
					7212401	Sonali bank deposit
			7213			<b>Advances</b>
				72131		Advances
					7213101	Drawing and disbursement officer's advance
					7213102	Advance against TA on transfer
					7213103	Advances holders/Imprest holders

## 4b. Example of Chart of Accounts Fund Segment for Special Funds (Bangladesh)

FUND SEGMENT (8 DIGITS)				
Fund Level-1	Fund Type Level-2	Fund Source Level-3	Fund Component/Agreement Level-4	Description
1 Digit	1 Digit	3 Digit	3 Digit	
7				<b>Consolidated Fund</b>
	11			<b>General Fund</b>
		11001		<b>Own Source Revenue</b>
			11001000	Own Source Revenue
		11002		<b>Budget Support (as Sector Support)</b>
			11002000	Budget Support (as Sector Support)
	12			<b>Specific Foreign Grant</b>
		12001		<b>ADB (Asian Development Bank)</b>
			12001000	Grant-ADB (Asian Development Bank)
	13			<b>Specific Foreign Loan</b>
		13001		<b>ADB (Asian Development Bank)</b>
			13001000	Loan-ADB (Asian Development Bank)
		13029		<b>IDA (International Development Association)</b>
			13029289	Loan-IDA: Public Procurement Digitization Project (P160758)



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**Annex 5.  
Example Weekly Cash  
Forecast Tool**

The following template was developed and used in the cash management office of Sierra Leone. Data has been modified and does not reflect actual figures.

BASELINE																
	CUMULATIVE TO DATE	FORECASTS FOR LAST WEEK	ACTUALS TO HIT CRF LAST WEEK	THIS WEEK'S FORECAST	NEXT WEEK'S FORECAST	WEEK-2 FORECAST	WEEK-3 FORECAST	WEEK-4 FORECAST	WEEK-5 FORECAST	WEEK-6 FORECAST	WEEK-7 FORECAST	WEEK-8 FORECAST	WEEK-9 FORECAST	WEEK-10 FORECAST	WEEK-11 FORECAST	WEEK-12 FORECAST
<b>CRF Balance at start of week</b>		26.75	-104.78	-82.63	-53.88	-31.63	-42.89	-92.83	-81.13	-39.97	20.77	-19.72	-72.20	-44.30	5.87	43.65
<i>add</i> Cash Receipts (a)		290.88	52.08	60.85	60.61	69.97	57.84	71.26	60.17	75.69	60.69	64.54	49.20	74.75	157.81	215.06
<i>add</i> Borrowing to hit CRF (d)		2.59	0.00	-5.15	0.00	-5.23	10.38	21.01	9.47	19.10	19.85	6.64	6.64	17.27	6.64	26.08
<i>less</i> Total non-discretionary payments		148.19	50.80	23.35	38.36	75.99	118.17	80.56	28.48	34.05	121.02	123.65	27.93	41.85	126.67	233.15
<b>Balance before discretionary spending</b>		<b>172.03</b>	<b>-103.50</b>	<b>-53.88</b>	<b>-31.63</b>	<b>-42.89</b>	<b>-92.83</b>	<b>-81.13</b>	<b>-39.97</b>	<b>20.77</b>	<b>-19.72</b>	<b>-72.20</b>	<b>-44.30</b>	<b>5.87</b>	<b>43.65</b>	<b>51.65</b>
<i>less</i> Total non-discretionary payments - cash management decision		0.00	5.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
<b>Assumed Overdraft position at end of week</b>		<b>172.03</b>	<b>-86.23</b>	<b>-53.88</b>	<b>-31.63</b>	<b>-42.89</b>	<b>-92.83</b>	<b>-81.13</b>	<b>-39.97</b>	<b>20.77</b>	<b>-19.72</b>	<b>-72.20</b>	<b>-44.30</b>	<b>5.87</b>	<b>43.65</b>	<b>51.65</b>
<b>Leeway</b>		288.03	29.77	90.40	112.65	101.39	51.45	63.15	104.31	165.05	124.56	72.08	99.98	150.15	187.93	195.93
Approved Overdraft Limit		116.00	116.00	144.28	144.28	144.28	144.28	144.28	144.28	144.28	144.28	144.28	144.28	144.28	144.28	144.28
<b>Payment Stock (payables)</b>																
<b>SENSITIVITY ANALYSIS - Impact of different scenarios on Leeway</b>				<b>2-6 Jan</b>	<b>9-13 Jan</b>	<b>16-20 Jan</b>	<b>23-27 Jan</b>	<b>30-3 Feb</b>	<b>6-10 Feb</b>	<b>13-17 Feb</b>	<b>20-24 Feb</b>	<b>27-3 Mar</b>	<b>6-10 Mar</b>	<b>13-17 Mar</b>	<b>20-24 Mar</b>	<b>27-31 Mar</b>
If there is revenue shortfall				78.23	106.59	94.40	45.66	56.03	98.29	157.48	118.49	65.63	95.07	142.68	181.48	189.42
If the auction is undersubscribed				90.40	112.65	101.39	51.45	61.05	103.36	163.14	123.61	71.42	99.32	148.42	187.27	194.41
If interest rates/the discounted value of t-bills is lower				90.40	112.65	101.39	51.45	59.57	102.70	161.79	122.94	70.95	98.85	147.20	186.80	193.34
<b>If there is no budget support</b>				<b>90.40</b>	<b>112.65</b>	<b>101.39</b>	<b>51.45</b>	<b>63.15</b>	<b>104.31</b>	<b>165.05</b>	<b>124.56</b>	<b>72.08</b>	<b>99.98</b>	<b>150.15</b>	<b>186.80</b>	<b>193.34</b>
Other government financing e.g. bridging loans, CGT, loan repayment, etc.				90.40	112.65	101.39	51.45	63.15	104.31	165.05	124.56	72.08	99.98	150.15	187.93	195.93
<b>ASSUMPTIONS: -</b>				<b>2-6 Jan</b>	<b>9-13 Jan</b>	<b>16-20 Jan</b>	<b>23-27 Jan</b>	<b>30-3 Feb</b>	<b>6-10 Feb</b>	<b>13-17 Feb</b>	<b>20-24 Feb</b>	<b>27-3 Mar</b>	<b>6-10 Mar</b>	<b>13-17 Mar</b>	<b>20-24 Mar</b>	<b>27-31 Mar</b>
Revenue increases (+) or falls (-) by X%				-0.2	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1
Auction undersubscribed (-) by X%				-0.2	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1
Discounted inflow from t-bills higher (+) or lower (-) due to a change in interest rates by X%				0.01	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02
More (+) or less (-) budget support than expected				0	0	0	0	0	0	0	0	0	0	0	0	0
Other government financing e.g. bridging loans, CGT, loan repayment, etc.				0	0	0	0	0	0	0	0	0	0	0	-93.3	0



**Annex 6.  
Example Responsibilities in a  
Cash Management Framework**



# Kenya Cash Management Framework

## Coordination & Operational Responsibilities

RESPONSIBLE UNIT/OFFICER AND RESPONSIBILITIES	
CASH MANAGEMENT UNIT	HEAD CASH MANAGEMENT UNIT
<p>a) Overall coordination of cash management in NT, preparation of Aggregate Cash Plan and guidance on monthly limits amongst other functions.</p> <p>b) Providing information on cash performance for management of the budget.</p>	
BUDGET FISCAL AND ECONOMIC AFFAIRS (BFEA)	DIRECTOR GENERAL BFEA OR/ DESIGNATED OFFICER
<p>Provide information on;</p> <p>a) Revenue collection and projections</p> <p>b) Macro data to guide aggregate projections</p> <p>c) Approved budget by category</p> <p>d) Review of MDA cash plans</p> <p>e) County funding.</p> <p>Establish and maintain the list of service delivery MDAs as part of the budget process.</p>	
PUBLIC DEBT MANAGEMENT OFFICE (PDMO)	DIRECTOR GENERAL PDMO OR DESIGNATED OFFICER
<p>Provide information on external and domestic borrowing specifically;</p> <p>a) Planned and actual debt service payments.</p> <p>b) External borrowing plan and domestic borrowing program.</p> <p>c) Actual Proceeds schedule.</p> <p>d) On market conditions and reactions to current policies or anticipated changes as far as borrowing is concerned.</p> <p>e) Liaison with CBK to provide the information required.</p> <p>Providing monthly service information on constitutional office obligations.</p>	
ACCOUNTING SERVICES AND QUALITY ASSURANCE (ASQA)	DIRECTOR GENERAL ASQA OR DESIGNATED OFFICER
<p>a) Review and prepare the aggregate cash plans</p> <p>b) Provide information on exchequer management.</p> <p>c) Management of government overdraft.</p> <p>d) Management of cash buffer.</p> <p>Provide relevant platform on IFMIS for cash management.</p>	
PUBLIC INVESTMENT AND PORTFOLIO MANAGEMENT (PIPM)	DIRECTOR GENERAL OR DESIGNATED OFFICER
<p>Provide information on;</p> <p>a) Monitoring of Major Public Investments (PIPM- PIM) and ensure the status is updated for guidance on projects for exchequer releases.</p> <p>b) Providing monthly projections and receipts from Parastatals</p> <p>c) Pension projections and actual payments.</p>	



# Pakistan Cash Management Policy

## Responsibilities for Operation and Reform

AIMS AND ACTIONS	TAKEN BY
<b>ANTICIPATION OF CASH NEEDS OF GOVERNMENT THROUGH;</b>	
a) Expansion of budgetary and accounting coverage to the public entities receiving single line budget	FG/FD/ CGA/PAOs
b) Monthly/quarterly/annual expenditure plans by the Principal Accounting Officers	PAOs/FD
c) Monthly/quarterly/annual procurement plans by the PAOs.	PAOs/FD
<b>ANTICIPATION OF CASH NEEDS OF GOVERNMENT THROUGH;</b>	
a) Receipts and payments (above the line) through:	
I. Monthly/quarterly/annual revenue plans	FBR/FD/ CGA/ PAOs
II. Monthly/quarterly/annual cash plans	FD
III. Extension of budgetary and accounting structure to the public entities receiving single line budget	FD/PAOs/CGA
IV. Detail revenue budgeting on the pattern of expenditure budgeting	FBR/ FDs Revenue
b) Financing transactions (below the line) through:	
V. Monthly/quarterly/annual/five years debt redemption plans	FD
VI. Monthly/quarterly/annual borrowing plans	FD
VII. Monthly/quarterly/annual/five years assets sales plans by Privatization Commission	Priv. Comm.
IV. Detail revenue budgeting on the pattern of expenditure budgeting	FBR/ FDs Revenue
c) Focus on Domestic Currency	SBP/FD
d) Scheduled Forecast information with identification of future peaks and troughs	FD
e) Rolled forward Regularly	FD



## Annex 7. PEFA Tables



## 7a. Case Study PEFA Scores in Key Indicators

INDICATORS/DIMENSIONS	BANGLADESH 2016	BHUTAN 2016	ZAMBIA 2017	WEST BANK AND GAZA 2019	INDONESIA 2018	KENYA 2017	SIERRA LEONE 2018
<b>PI-1. Aggregate expenditure out-turn</b>	<b>B</b>	<b>A</b>	<b>B</b>	<b>B</b>	<b>C</b>	<b>B</b>	<b>D</b>
1.1. Aggregate expenditure out-turn	B	A	B	B	C	B	D
<b>PI-2. Expenditure composition out-turn</b>	<b>D+</b>	<b>C+</b>	<b>D+</b>	<b>D+</b>	<b>C+</b>	<b>D+</b>	<b>D</b>
2.1. Expenditure composition out-turn by function	D	C	C	D	B	B	D*
2.2. Expenditure composition out-turn by economic type	C	B	D	B	C	D*	D*
2.3. Expenditure from contingency reserves	A	A	A	A	A	A	D*
<b>PI-3. Revenue out-turn</b>	<b>C</b>	<b>D+</b>	<b>C+</b>	<b>C</b>	<b>D</b>	<b>B</b>	<b>C+</b>
3.1. Aggregate revenue out-turn	D	C	A	B	D	B	A
3.2. Revenue composition out-turn	B	D	D	D	D	B	D*
<b>PI-6. Central government operations outside financial reports</b>	<b>D</b>	<b>C+</b>	<b>C+</b>	<b>A</b>	<b>A</b>	<b>D</b>	<b>D</b>
6.1. Expenditure outside financial reports	NR	B	B	A	A	D*	D
6.2. Revenue outside financial reports	NR	B	B	A	A	D*	D
6.3. Financial reports of extrabudgetary units	NR	D	D	NA	A	D*	D*
<b>PI-14. Macroeconomic and fiscal forecasting</b>	<b>D+</b>	<b>B</b>	<b>B</b>	<b>D+</b>	<b>B+</b>	<b>A</b>	<b>C</b>
14.1. Macroeconomic forecasts	C	A	B	C	A	A	C
14.2. Fiscal forecasts	C	B	B	C	B	A	C
14.3. Macro fiscal sensitivity analysis	D	C	B	D	B	B	C
<b>PI-20. Accounting for revenue</b>	<b>C+</b>	<b>B+</b>	<b>B+</b>	<b>C+</b>	<b>A</b>	<b>D+</b>	<b>C+</b>
20.1. Information on revenue collections	A	A	B	A	A	A	B
20.2. Transfer of revenue collections	A	A	A	A	A	B	B
20.3. Revenue accounts reconciliation	C	B	A	C	A	D	C
<b>PI-21. Predictability of in-year resource allocation</b>	<b>B+</b>	<b>B+</b>	<b>C+</b>	<b>C+</b>	<b>A</b>	<b>C</b>	<b>D+</b>
21.1. Consolidation of cash balances	C	B	C	C	A	D	C
21.2. Cash forecasting and monitoring	A	B	B	A	A	C	B
21.3. Information on commitment ceilings	B	A	C	D	A	C	D
21.4. Significance of in-year budget adjustments	A	A	C	C	B	B	D
<b>PI-22. Expenditure arrears</b>	<b>D</b>	<b>D</b>	<b>D+</b>	<b>D+</b>	<b>B+</b>	<b>C+</b>	<b>D</b>
22.1. Stock of expenditure arrears	NR	D	D	D	B	B	D*
22.2. Expenditure arrears monitoring	NR	D	B	A	A	C	D
<b>PI-25. Internal controls on non-salary expenditure</b>	<b>C</b>	<b>A</b>	<b>B</b>	<b>B</b>	<b>A</b>	<b>B+</b>	<b>B</b>
25.1. Segregation of duties	A	A	A	A	A	A	A
25.2. Effectiveness of expenditure commitment controls	D	A	C	C	A	C	C
25.3. Compliance with payment rules and procedures	D	A	C	C	A	A	C
<b>PI-27. Financial data integrity</b>	<b>C+</b>	<b>B</b>	<b>C</b>	<b>B+</b>	<b>A</b>	<b>C</b>	<b>B</b>
27.1. Bank account reconciliation	D	B	D	B	A	B	B

INDICATORS/DIMENSIONS	BANGLADESH 2016	BHUTAN 2016	ZAMBIA 2017	WEST BANK AND GAZA 2019	INDONESIA 2018	KENYA 2017	SIERRA LEONE 2018
27.2. Suspense accounts	A	C	C	NA	A	D	N/A
27.3. Advance accounts	D	B	C	B	A	D	N/A
27.4. Financial data integrity processes	A	B	B	A	A	B	B
<b>PI-28. In-year budget reports</b>	<b>C+</b>	<b>C+</b>	<b>D+</b>	<b>B+</b>	<b>B+</b>	<b>C+</b>	<b>D+</b>
28.1. Coverage and comparability of reports	A	B	C	B	A	C	D
28.2. Timing of in-year budget reports	C	C	D	B	B	C	D
28.3. Accuracy of in-year budget reports	C	B	C	A	A	B	C

# 7b. Comparing Core CM and CC Capacity with Arrears and Budget Execution Outcomes



## 7c. Comparative Regional Strengths and Outcomes

Data from PEFA Report 2020 Dataset with the addition of Kenya 2018 and Somalia 2018 which were not included in the PEFA dataset.

Strong or small align to countries scoring 3.5 or 4, moderate: 2.5 and 3, weak: 1.5 and 3, and very weak 1 or less.



