



FISCAL AFFAIRS

HOW TO

NOTES

How to Build Cash Management Capacity in Fragile States and Low-Income Developing Countries

Fiscal Affairs Department

How to Build Cash Management Capacity in Fragile States and Low-Income Developing Countries

Prepared by Sailendra Pattanayak, Racheeda Boukezia,
Yasemin Hurcan, and Ramon Hurtado

©2022 International Monetary Fund
Cover Design: IMF Creative Solutions
Composition: The Grauel Group

HOW TO NOTE

Fiscal Affairs Department

How to Build Cash Management Capacity in Fragile States and Low-Income
Developing Countries

Prepared by Sailendra Pattanayak, Racheeda Boukezia, Yasemin Hurcan,
and Ramon Hurtado

Names: Pattanayak, Sailendra, author. | Boukezia, Racheeda, author. | Hurcan, Yasemin, author. | Hurtado
Arcos, Ramon, author. | International Monetary Fund. Fiscal Affairs Department, issuing body. | International
Monetary Fund, publisher.

Title: How to build cash management capacity in fragile states and low-income developing countries / prepared
by Sailendra Pattanayak, Racheeda Boukezia, Yasemin Hurcan, and Ramon Hurtado.

Other titles: How to notes (International Monetary Fund).

Description: Washington, DC : International Monetary Fund, 2022. | NOTE 22/01 | Includes bibliographical
references.

Identifiers: ISBN 9781557754431 (paper)

Subjects: LCSH: Cash management -- Developing countries. | Revenue management -- Development countries.

Classification: LCC HG4028.C45 P38 2022

DISCLAIMER: Fiscal Affairs Department (FAD) How to Notes offer practical advice from IMF staff members to policymakers on important economic issues. The views expressed in FAD How to Notes are those of the author(s) and do not necessarily represent the views of the IMF, its Executive Board, or IMF management.

Publication orders may be placed online, by fax, or through the mail:

International Monetary Fund, Publication Services

PO Box 92780, Washington, DC 20090, U.S.A.

Tel.: (202) 623-7430 Fax: (202) 623-7201

Email: publications@imf.org

www.imfbookstore.org

| | |
|--|-----------|
| Acronyms | v |
| I. Introduction | 1 |
| II. Key Objectives and Building Blocks of a Cash Management Function | 2 |
| III. Consolidating Cash Resources Under Treasury Oversight | 4 |
| Key Challenges..... | 4 |
| Key Measures for a Progressively Consolidated View of Cash Resources..... | 4 |
| IV. Forecasting Short-Term Cash Inflows and Outflows | 8 |
| Key Challenges..... | 8 |
| Key Measures for the Progressive Development of a Cash Forecasting Function..... | 10 |
| V. Managing Cash Balance and Ensuring Institutional Coordination | 16 |
| Identifying Short-Term Financing Options to Address Seasonal Cash Shortfalls..... | 16 |
| Building a Buffer to Meet Any Unforeseen Demands for Cash..... | 17 |
| Managing the Relationship between the Ministry of Finance and the Central Bank..... | 18 |
| Establishing an Institutional Mechanism for Cash Management Decisions | 19 |
| VI. Developing a Sequenced Strategy for Cash Management Reforms | 22 |
| Conducting a Diagnostic to Understand the Context and Institutional Weaknesses..... | 22 |
| Identifying Reform Priorities and Developing a Sequenced Reform Strategy..... | 22 |
| Annex 1. Illustrative List of Functions of a Cash Management Unit (CMU) | 24 |
| References | 25 |
| Boxes | |
| 1. Factors Inhibiting TSA Reform in Fragile States and LIDCs | 5 |
| 2. Maintaining Government Accounts in Commercial Banks: The Example of Mali..... | 7 |
| 3. Political Commitment for TSA Reform: The Example of Afghanistan..... | 8 |
| 4. Treasury Single Account Reform: The Examples of Haiti and Sudan..... | 9 |
| 5. General Issues Hindering Improved Coverage and Quality of Cash Forecasts | 11 |
| 6. The Cash Flow Forecasting Analytical Tool..... | 14 |
| 7. Categorizing Cash Flows According to Their Predictability and Seasonality | 15 |
| 8. Example of a Treasury Committee: Guinea Bissau..... | 21 |

Figures

1. Relative Share of Donor Resources in Fragile States, 2013–17.....2

2. Cash Management Function in Fragile States Relative to Other Country Groups.....4

3. Indicative Task Distribution among Staff of CFU.....19

4. Cash Management Decision Flow Chart21

5. Focus Areas of Forward-Looking Diagnostic.....22

6. Three Key Pillars of a Cash Management Reform Strategy23

Table

1. Information Providers for Cash Forecasting.....20

| | |
|--------|---|
| BCEAO | Central Bank of West African States |
| BNC | Banque Nationale de Crédit |
| BRH | Banque de la République de Haiti |
| CBUs | central budgetary units |
| CCC | cash coordination committee |
| CFU | cash forecasting unit |
| CMU | cash management unit |
| COTADO | Comité Técnico de Arbitragem das Despesas Orçamentais |
| DNT | Despesas não tituladas |
| EBFs | extrabudgetary funds |
| EFT | electronic funds transfer |
| FS | fragile states |
| FMIS | financial management information system |
| IT | information technology |
| LIDCs | low-income developing countries |
| MDAs | ministries, departments, and agencies |
| PFM | public financial management |
| RAs | revenue authorities |
| SLA | service-level agreement |
| TSA | Treasury Single Account |

HOW TO BUILD CASH MANAGEMENT CAPACITY IN FRAGILE STATES AND LOW-INCOME DEVELOPING COUNTRIES

Fiscal institutional capacity in most fragile states (FS) and several low-income developing countries (LIDCs) is much lower than in other countries. Governments in these countries face several cash management challenges because they often lack credible budgets, have smaller and less diversified revenue bases, have limited access to financial markets, and rely largely on donors to fund a large portion of their budgets. Available public funds in these countries often remain dispersed outside the control of the ministry of finance. In the absence of a good cash forecasting function, these countries typically resort to cash rationing to meet their priority spending needs, often in an ad hoc manner, which can adversely affect budget execution and achievement of fiscal policy targets. This note sets out the key objectives and building blocks of a cash management function in FS and LIDCs. It suggests several measures to progressively build cash management capacity in three interrelated areas: consolidating cash resources, forecasting cash flows, and managing cash balances with sound institutional setups.

I. Introduction

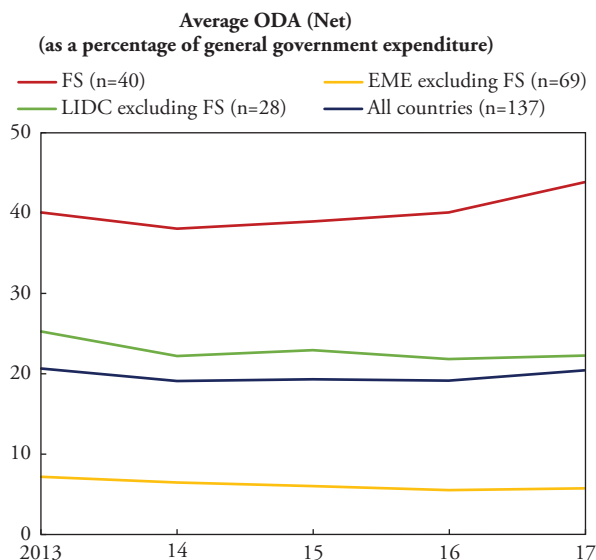
Over half a billion people live in fragile states (FS), the majority of which are low-income developing countries (LIDCs) in Sub-Saharan Africa. FS are defined as having either *weak institutional capacity* as measured by the World Bank Country Policy and Institutional Assessment score (average of 3.2 or lower) and/or *experience of conflict* (signaled by the presence of a peacekeeping or peace-building operation in the most recent three-year period). In many FS, the emphasis is

initially on ensuring security and stability, while delivery of public services is often secondary. Many FS are characterized by low administrative capacity, political instability, conflict, and weak economic performance. Fiscal institutional capacity is either nonexistent or much lower than in other countries, a situation that is further exacerbated by the rapid outflow of skilled human resources to escape the fragile environment and seek better opportunities elsewhere. Many LIDCs also share similar low administrative and institutional capacities, although they may have relative political stability compared to FS. Low-capacity environments pose challenges for both initiating reforms and for sustaining them over a longer term. These and other factors highlight the need for adopting an incremental approach to reform to progressively build stable fiscal institutions in FS and LIDCs.

Cash management and budget execution are among those critical reforms that face very different challenges in FS and LIDCs and that need to be addressed in an incremental fashion. Many FS, at least during the early stages of fragility, lack a comprehensive and credible budget to manage public resources. Cash management is easier when the budget approved by the legislature is based on a reliable estimate of resources and planned spending for the coming year. For several reasons, however, formulating credible budgets is frequently a challenge in FS and LIDCs (Simson and Welham 2014). The revenue bases in FS and LIDCs tend to be smaller, less diversified, and consequently more volatile. Also, a large part of the total spending envelope in these countries is nondiscretionary, leading to cash shortages when cash inflows are lower than projected. These countries also lack access to financial markets; most of them rely on donor money to fund a large portion of their budgets (Figure 1), but the disbursement of donor funds is often unpredictable. Available public funds in these countries often remain dispersed outside the control of the ministry of finance/treasury, which hinders a clear view of the overall cash balance and potentially weakens controls, leading to the leakage of cash. These issues, coupled with unrealistic budgets, lead to the build-up of arrears, and have ripple effects

This How to Note is part of a suite of capacity development products on cash management for FS and LIDCs. The two other companion products are as follows: (1) an excel-based cash forecasting tool and its associated user guide (Williams, Hurcan, Nguenang, Pattanayak, Ryan, and Gallardo 2021); and (2) a questionnaire-based diagnostic tool to assess cash management capacity (Boukezia, Gros, and Pattanayak 2021). The authors would like to thank Mr. Mike Williams for his valuable suggestions on this note. The authors are also grateful to Ms. Sureni Weerathunga for her research assistance and to IMF colleagues who provided helpful comments.

Figure 1. Relative Share of Donor Resources in Fragile States, 2013–17



Source: OECD 2019.

Note: EME = emerging market economies; FS = fragile states; LIDC = low-income developing country; ODA = official development assistance.

on private consumption and financial stability—including, for example, increased nonperforming loans in the banking system as a flow-on effect of the failure of the government to meet its payment obligations to staff and suppliers.

This note is structured as follows: The second section sets out the key objectives and building blocks of a cash management function in FS and LIDCs. The three following sections discuss the challenges and measures necessary to progressively establish each of the three key building blocks of cash management. The final section discusses the development of a sequenced reform strategy to build cash management capacity.

II. Key Objectives and Building Blocks of a Cash Management Function

The overarching goal of government cash management is to ensure the availability of cash to pay for expenditures when they are due while minimizing the cost of funds. Achieving this goal allows the smooth execution of the government budget and the achievement of fiscal policy targets. Although the annual budget provides estimates of the revenue, expenditure, and financing needs for the entire year, the actual

day-to-day flows of government receipts and payments are typically not smooth due to the seasonality of tax and nontax receipts, grant and loan disbursements, and government expenditures. A sound cash management function helps address the projected mismatches between cash needs and cash availability in the most cost-effective way to maximize liquidity and minimize the cost of funds.

A good cash management system provides several benefits, notably:

- Ability to make timely payments. Good cash management helps ensure sufficient operating liquidity by estimating the available cash deposits, expected cash inflows, and required disbursements during a given period.
- Reduced costs of financing. Good cash management can reduce the need for short-term borrowing or liquidation of long-term investments before maturity, and it helps identify idle funds and determine whether those funds could be invested.
- Avoidance of expenditure arrears. Expenditure arrears are a costly form of government financing and arise for a variety of reasons: unrealistic budget; poor cash management; noncompliance with budget execution procedures; and large shocks, including, for example, during the COVID-19 pandemic.
- Improved stability of the domestic financial system. As cash management often involves short-term borrowing from commercial banks, more predictable and stable short-term borrowing can be expected from improved cash management practices. Commercial banks in FS and LIDCs also benefit from sound cash management in terms of managing their liquidity.¹

Cash managers in FS and LIDCs should pursue five key objectives:

- Anticipate mismatches between the expected timing of payments and cash availability. Doing this helps identify appropriate policy options in advance and analyze tradeoffs (including possible short-term borrowing) to address any anticipated cash shortfalls.
- Develop and use a suite of policy options to address both anticipated and unanticipated cash shortfalls.

¹Some FS and LIDCs have a fragmented payment system where ministries, departments, and agencies (MDAs) hold their own bank accounts—especially when no Treasury Single Account (TSA) is in place. Their deposits provide significant liquidity to commercial banks. Improved cash management practices can also help these banks to manage their own liquidity.

Potential policy options include short-term borrowing, deferment of a discretionary expenditure transaction, or budget adjustment/revision. Unanticipated cash shortfalls—which may arise because of poor budget credibility/revenue forecasts or unexpected events in an FS—would require frequent monitoring of budget execution/revenue realization to allow timely budget adjustment/revision and introduce cash cushions or buffers. Using other safety nets, such as short-term advances from the central bank or credit lines from commercial banks, could also be considered.

- Avoid idle government deposits in the banking system. Idle cash that the treasury cannot access to make priority payments entails a cost. Failure to control and eliminate the idle stacking and/or diversion of cash at any stage of the expenditure chain not only increases the cost of public service delivery, it also exacerbates the existing cash-constrained environment in FS and LIDCs. Another consequence of idle cash or the diversion of cash is that it opens the door to unauthorized use of public resources and even corruption when there are institutional and governance vulnerabilities. Even though these idle government deposits could be an (imperfect) buffer to manage the risk of unforeseen cash shortfalls, they are generally not known and are not available to the treasury/cash manager.
- Minimize government borrowing costs. The cash manager should ensure that available cash is used for payments when it is most needed and that tradeoffs between short-term borrowing and other policy options for cash flow management are carefully evaluated.
- Ensure coordination with debt managers and the central bank. Doing this will help avoid any adverse effects of the government's cash flows on debt management, financial markets, and monetary policy.

To achieve cash management objectives, capacity in FS and LIDCs should be formed around three core building blocks:

- Consolidating cash resources under treasury oversight. Pooling government revenues in a TSA facilitates cash management by ensuring a concentration of funds.² Treasury holds all funds, with

²A TSA system brings all, or a large majority of, government bank accounts under a single unified structure so that the ministry of finance/treasury can trace all cash flows in and out of these bank

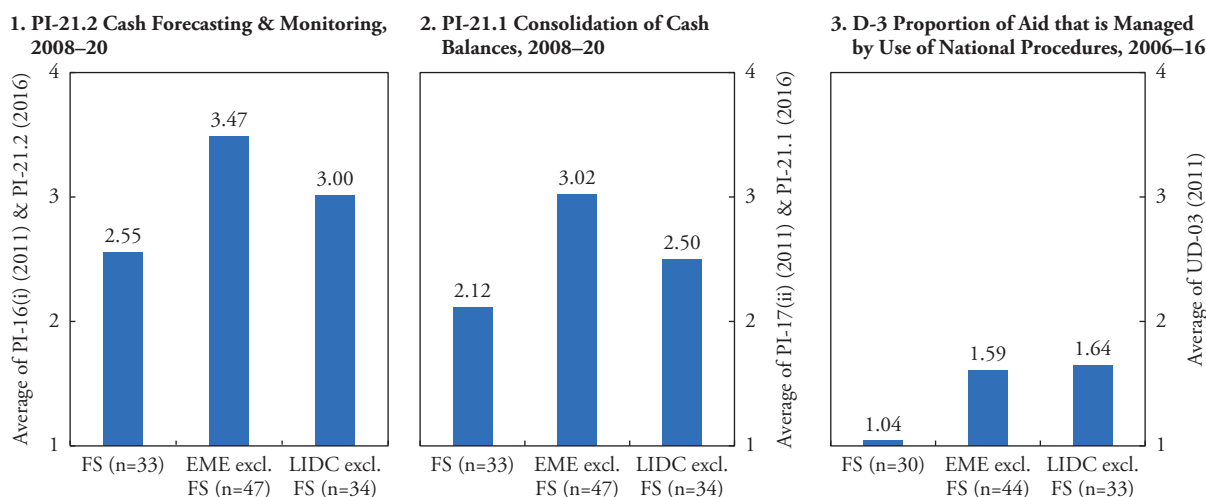
very few exceptions, under the management of its fiscal agent, usually the central bank. Under the TSA system, each spending ministry/agency is given accounting control and responsibility for the timing and use of its funds, but the ministry/agency does not actually hold those funds outside of treasury control. *This building block contributes to achieving the third and fourth objectives previously discussed.*

- Forecasting short-term cash inflows and outflows. Timely and realistic forecasts of the amounts of aggregate cash inflows and outflows over a given period (monthly, weekly, or daily) need to be developed. They should encompass all (or at least large) payments and should align expenditure planning with actual cash spending. Doing this helps to anticipate mismatches between the timing of payments and the availability of cash. The agency in charge of cash forecasting receives direct information from the revenue collecting and spending agencies and from an analysis of seasonal tendencies in cash flows to forecast the day's liquidity needs. *This building block contributes to achieving the first and second objectives previously discussed.*
- Managing the cash balance and ensuring institutional coordination. Cash balance management involves actions to ensure that the government has the right amount of cash on hand at any point in time to pay for its obligations. The agency/unit in charge of cash management—typically a unit in the ministry of finance/treasury—takes responsibility for maintaining adequate liquidity to cover each day's expected net cash flow, as well as an extra amount as a contingency for unforeseen flows. In addition, there is a need to establish an institutional mechanism to make cash management-related decisions in coordination with budget and debt management, as well as with the monetary authority/central bank. *This building block contributes to achieving the second, fourth, and fifth objectives previously discussed.*

These core building blocks of cash management should be developed in a progressive manner in FS and LIDCs, with appropriate sequencing. Given the specific challenges and opportunities in each FS or LIDC, there is no one-size-fits-all solution to build a good cash management function in these countries. The reform measures need to be prioritized and sequenced,

accounts and pool the balances for efficient cash management. For more information, see Pattanayak and Fainboim (2011).

Figure 2. Cash Management Function in Fragile States Relative to Other Country Groups



Source: Public Expenditure and Financial Accountability (PEFA) database (www.PEFA.org).
 Note: Conversion of PEFA alphabetic scores to numerical scores:

| PEFA Scores | A | B+ | B | C+ | C | D+ | D | D*, NR | NA, NU |
|-----------------|---|-----|---|-----|---|-----|---|--------|----------|
| Numerical value | 4 | 3.5 | 3 | 2.5 | 2 | 1.5 | 1 | 1 | Excluded |

considering country-specific circumstances, including initial conditions and absorptive capacity.

III. Consolidating Cash Resources under Treasury Oversight

Key Challenges

It is not uncommon for FS and LIDCs to lack a complete inventory of bank accounts with government cash resources. When government MDAs have many bank accounts, often dispersed across several banks in the country, the authorities’ information on ownership of government bank accounts is likely to be incomplete, particularly when the central bank oversight of commercial banks is weak, which is often the case in FS and some LIDCs. In some FS, especially during conflict, MDAs often open bank accounts without the knowledge or the approval of the ministry of finance, or the ministry of finance does not monitor the bank accounts. This makes the inventory of government bank accounts particularly difficult; weakens the oversight role of the ministry of finance; and poses important challenges for cash consolidation, or at a minimum, for compiling a complete picture of government bank accounts and their cash flows and balances.

Consolidation of cash resources in a TSA is critical for effective cash management, but many factors could

inhibit this reform in FS and LIDCs (Box 1). TSA implementation—which needs to consider constraints in the government payment and accounting systems, as well as in the payment system connecting the banks—and the development of good cash management practices are among the most challenging public financial management (PFM) reforms in FS relative to other country groups, including LIDCs (Figure 2).

Key Measures for a Progressively Consolidated View of Cash Resources

The consolidation of cash resources should be a priority reform and should be implemented in a progressive manner. TSA reform is often identified as a priority for fiscal institutional capacity building in FS (for example, in Afghanistan, Guinea, Kosovo, Mali, South Sudan, and Sudan) and LIDCs. Once the principles of a TSA are well understood, capacity-building efforts in FS and LIDCs should be focused on the preconditions and phasing of the implementation. A complete inventory of the government’s bank accounts, a well-functioning banking network and technology, and an adequate accounting system will all be lacking in many conflict- or post-conflict countries. In the absence of adequate infrastructure, the reform should be carefully sequenced. For example, closure of MDAs’ bank accounts before introducing a functional nation-

Box 1. Factors Inhibiting TSA Reform in Fragile States and Low-Income Developing Countries

- **Political economy challenges.** Ministries, departments, and agencies (MDAs) are often reluctant to relinquish control over their bank accounts, and they sometimes cite specificities to keep their accounts outside the Treasury Single Account (TSA). Although many countries undertaking TSA reform face this challenge, it can be more acute in fragile states (FS) where the ministry of finance or treasury is at an early stage of establishing its role as the custodian of public resources.
- **Transaction-specific bank accounts used for accounting purpose.** Since accounting systems in some FS and low-income developing countries (LIDCs) are not well developed to properly classify and track transactions, the treasury may track specific types of transactions through separate bank accounts and reconcile them through bank statements.
- **Underdeveloped banking infrastructure.** The absence of an operationally integrated banking system, including physical infrastructure, with sufficient geographical coverage across the country is often the most impeding constraint observed in many FS and some LIDCs. The lack of a core banking system may be exacerbated by the absence of a well-developed modern payment system, even in major cities. The lack of a reliable clearing and settlement system could be particularly constraining.
- **Adverse liquidity implications for banks.** Some commercial banks in FS and LIDCs might depend on government deposits for liquidity and transferring their balances to the TSA could have an adverse impact on banking system liquidity. However, this liquidity challenge needs to be ascertained and should not be used as a general excuse—for example, an audit in Sudan concluded that there was no such problem in practice. In any case, the central bank should be involved in TSA reform for addressing any potential issues in the banking system.
- **Inefficient payment modes.** Governments in many FS and several LIDCs typically use cash and checks as the dominant mode of payment, both of which are less efficient and more costly than electronic funds transfers and make it difficult to track transactions and cash flows adequately and in a timely manner.
- **Incomplete information on cash resources.** The treasury in FS and LIDCs may not have full information on government cash, including cash held physically and daily balances in government bank accounts. This sometimes reflects the lack of a full inventory of government bank accounts and/or poor electronic infrastructure. The government can also lose access to cash resources in FS, especially when parts of the country are controlled by militia or dissident groups (as in Northern Mali, Yemen, or, in the past, in Iraq).
- **Retention of revenues collected by MDAs.** This could be a major issue where there are technical/information technology constraints—as there often are in FS—for MDAs to transfer their revenue collections to the treasury and for the treasury to transfer resources to them in a timely manner to make payments. MDAs in FS and LIDCs may also distrust the role of the ministry of finance in planning and making available cash resources; they may be reluctant to disclose information on their own bank accounts and collected revenues (for example, Guinea Bissau and South Sudan). This situation is further exacerbated by the lack of capacity to reconcile tax returns and payment orders with bank statements to arrive at the cash position.
- **Lack of fungibility of donor flows.** Cash flows from donors are not always known because donors require the opening of separate bank accounts for their funds; even when they provide information, they might not allow consolidation of their funds with other government resources.
- **Weak staff capacity and other constraints.** Conflict-afflicted and post-conflict states can suffer from low levels of human capacity for a variety of reasons (such as emigration, deterioration of the education system, or a high number of casualties during a conflict); and poaching of skilled staff from government by the private sector, donors, or nongovernmental organizations is also common. Some FS (for example, the Pacific Islands) and LIDCs face additional constraints because of their small size, costly infrastructure links, and the absence of a central bank (for example, in Kiribati and Tuvalu).

Source: IMF staff.

wide payment system increased the use of physical cash for government payments in Somalia.

The starting point should be to expand the ministry of finance/treasury's oversight of government cash balances and flows as they go through multiple bank accounts (some owned by the treasury, some by other agencies, and some by donors). Although the TSA implementation goes through different stages, a strong emphasis should be put on the regular and comprehensive reporting of cash flows for all government bank accounts through formal agreements with banks, allowing the treasury to identify the cash resources available for budget execution.

FS and LIDCs should consider the following measures to progressively consolidate cash and sequence them appropriately, taking account of country context.

- Address the banking system constraints. This could be one of the most urgent reforms to initiate. Ideally, an interbank clearing and settlement system and a good banking network are key for a TSA to be implemented and to operate effectively. For example, in Togo, the authorities initiated some steps, starting in 2019, to establish a TSA once they joined the Central Bank of West African States (BCEAO) payment systems (Système Interbancaire de Compensation Automatisé and Système de Transfert Automatisé et de Règlement). Since a core banking system could take a long time to implement in an FS, some actions could be performed concurrently: (1) agreeing on a protocol for data sharing with the central bank system; (2) regular coordination meetings between the ministry of finance, large, decentralized spending units, revenue agencies, and commercial banks with government accounts; and (3) regular audits of the decentralized units' bank accounts. There is a need for close cooperation with—and complementary capacity development support for—the central bank to help address the impediments related to the financial sector infrastructure and central bank systems.
- Define the role of commercial banks in revenue collection and payment operations. In general, it can be more efficient to use commercial banks for government retail banking operations. While progressively introducing a TSA, commercial banks could assume or retain the retail banking role with timely sweeping mechanisms for transferring the balance to the TSA. However, the retail banking role of central and commercial banks will evolve and depend on the specific context in an FS or LIDC. In some

cases, instead of closing commercial bank accounts, the government could focus initially on introducing effective sweeping mechanisms for the cash collected by or deposited in those bank accounts to be remitted to the main treasury bank account at the central bank. If adequate banking information technology (IT) infrastructure exists, it should be possible for commercial banks to have notional accounts for government cash flows, provided the ministry of finance/treasury can track and oversee them. In addition, there may be instances—for example, if payment processing is dispersed or the geographical spread of the central bank is limited—where it would be necessary to retain accounts in commercial banks. Such accounts should preferably be zero-balanced, that is, balances should be swept to the TSA each business day.

- Develop and implement a plan for progressive cash consolidation. This plan should provide for a phased transfer of government cash balances for consolidation through a TSA system.³ It is worth transferring balances in phases—considering the country context in coordination with the central bank and commercial banks—to address any concerns regarding the banking sector liquidity while transferring balances to the TSA (see Box 2 for the example of Mali). It can start with the budgetary agencies' accounts and slowly extend to extrabudgetary funds (EBFs), special accounts, and other parts of government. In particular, the following steps could be taken: (1) take stock of government bank accounts and close those with idle balances; (2) concentrate large cash movements in the TSA to the extent possible; (3) closely monitor those bank accounts that have the largest cash inflows and outflows, starting with the bank accounts of budgetary central government; (4) ensure daily reporting and reconciliation of cash movements in this set of large bank accounts; (5) gradually move toward an overall monitoring of the remaining bank accounts with relatively smaller amounts of cash flows; and (6) implement a phased plan to unify government bank accounts under a TSA system to provide a consolidated view of cash resources.

³Although the custodian of the TSA in an FS or LIDC should be the central bank, the TSA architecture will depend on the country context and its budget execution practices (see Pattanayak and Fainboim 2011).

Box 2. Maintaining Government Accounts in Commercial Banks: The Example of Mali

In Mali, it was agreed that the Treasury Single Account would be gradually implemented at the Central Bank of West African States (BCEAO). A study of the impact of transferring the balances in all 3,000+ government accounts (other than project accounts) from commercial banks (13 in total) to the BCEAO was completed prior to the initiation of the reform. The study concluded that 11 banks could handle the immediate transfer of these accounts to the BCEAO

Source: IMF staff.

without compromising their liquidity ratios but that, eventually, five banks (out of 13) would see their ratios fall below the minimum required. It was decided to transfer accounts opened at “financially healthy” banks and to take additional time to determine a strategy for transferring accounts in the other commercial banks to the BCEAO. An agreement between the commercial banks and the ministry of finance was drafted to create zero-balance accounts and organize periodic transfers of balances to the BCEAO.

- Institute a strong reporting and bank reconciliation system and treasury oversight. As the coverage of TSA and treasury oversight of cash resources expands, the government should require full reporting by banks (to be defined in formal agreements) and ensure that bank reconciliations are duly conducted in a timely manner—at least monthly. Service level agreements should be defined and agreed with all the banks holding government accounts. At a minimum, these agreements should provide for the turnaround times for the central bank and/or commercial banks to process banking transactions; the timely and regular reporting on the cash balances in individual bank accounts, including, if possible, the consolidated cash balance at each bank; the nature of the information both parties are obliged to provide; and the timing of transfers from each commercial bank account to the treasury main account/TSA and business continuity arrangements.
- Integrate donor funds with the overall cash consolidation framework. Ideally, balances in donor-financed, project-related accounts should also be transferred to the TSA,⁴ but in practice it is usually more realistic to leave these accounts for a later phase. Donors will be unwilling to integrate their balances in the TSA until the authorities have developed sufficient control, accountability (covering reporting and audit), and monitoring mechanisms to reassure donors that access to their resources will

not be jeopardized. The integration of donor funds with the TSA may also be phased, focusing first on local currency-denominated bank accounts and later on forex-denominated accounts. Specific arrangements can include a protocol between the donors and the treasury that covers reporting, internal control, and auditing mechanisms.

Several overarching elements need to be in place while these reform measures are being implemented.

- The reform process needs the explicit and firm support of authorities at the highest level. This support is important to meet the potential resistance from MDAs with separate bank accounts and from commercial banks, to a lesser extent (Box 3). A dedicated committee to manage the reform also helps to sustain its pace and avoid backsliding. For example, in Rwanda, at the time the country was still considered fragile, a treasury committee was established with responsibility to implement all reforms related to cash management, including the establishment of a TSA.
- The legal framework should provide for the progressive implementation of a TSA and sustaining it over the long term. The obligation to set up a TSA is generally enshrined in the PFM legal framework. For example, the PFM directives of Central African Economic and Monetary Community and West African Economic and Monetary Union countries provide for this obligation, which is replicated in all national legislation. When it is difficult to change the legal framework (such as in the absence of a sitting parliament in an FS), this obligation could

⁴The 2005 Paris Declaration on Aid Effectiveness (OECD 2005) encourages donors to integrate their funds with the countries' public financial management systems, which include the TSA (see the Articles 17 and 21 of the Declaration).

Box 3. Political Commitment for TSA Reform: The Example of Afghanistan

In Afghanistan, a strong political commitment was key to Treasuring Single Account (TSA) reform, which was pushed by the authorities in 2003 when they wanted to issue short-term domestic government debt. Following a recommendation of the minister of finance, the president ordered all government units to

close their bank accounts and process their operations through the treasury. The requirement for bringing all government revenues to the TSA at the central bank was further strengthened in the Constitution adopted in 2004.

Source: IMF staff.

be provided in financial regulations, issued typically by the ministry of finance. For example, in Guinea, after the transition government was replaced by a presidential regime in 2011, the TSA reform initiated by the authorities was first backed by an instruction of the minister of finance before the adoption of a new organic budget law that included provisions for implementing a TSA.

- If a financial management information system (FMIS) is planned or exists, it could provide an enabling environment for TSA operation. The FMIS could include functionality to configure a virtual hierarchical structure of accounts under the TSA main account that may be necessary to track and control specific categories of cash flows. This functionality, for example, would allow the ministry of finance to control or monitor spending ceilings given to MDAs instead of advancing physical cash to their bank accounts, whether in the central bank or a commercial bank; the respective bank can be given a credit limit against which the MDA can draw, with the bank settling directly with the TSA through the payment system. In due course, the same mechanism can be used to bring EBFs and donor balances within the TSA system without the donors losing any claim on the resources to which they are entitled. A well-designed IFMIS would also support EFT and facilitate reconciliations. These considerations should guide the future development of IFMIS in FS and LIDCs.

The timeline to implement a TSA would depend on the country context. Box 4 describes the examples of Haiti and Sudan, which implemented a core TSA in 11 years and 4 years, respectively.

IV. Forecasting Short-Term Cash Inflows and Outflows

Key Challenges

Cash forecasting in FS and LIDCs faces several challenges:

- Lack of timely data on government cash flows and balances. This lack could be due to the failure of banks with treasury accounts to provide information in a timely manner and/or to the differences in the coverage of transactions reported in bank statements with that of the treasury. Cash forecasting in the absence of the latest information is likely to be much less reliable.
- Focus of cash forecasting on budget items rather than cash flows. Typically, not all budget expenditures imply movements in cash and several cash movements are not reflected in the budget (for example, imprest⁵ or project advances, retention of nontax revenue by MDAs, and cash transfers between bank accounts).
- Confusion between expenditure plans and cash forecasts. Expenditure plans—sometimes called cash plans—are typically based on, and constrained by, the budget. In other words, they are projections or best estimates of what should happen. Cash forecasts, in contrast, should not be constrained by the budget plans. Their focus should be on what will happen to cash, which tends to diverge from the budget within the year.
- Overemphasis on cash availability in the short term. Many FS and LIDCs take a short-term view focused

⁵An imprest fund is a small amount of cash that is set aside for use by a ministry, department or agency to pay for small, incidental expenses. Funds contained in imprests are regularly replenished to maintain a fixed balance.

Box 4. Treasury Single Account Reform: The Examples of Haiti and Sudan

Haiti

Haiti undertook several reforms to strengthen cash management, fiscal discipline, and transparency. During 2011–13, the IMF's Fiscal Affairs Department assisted in developing a strategy to set up the accounting function and draft the Treasury Single Account (TSA) regulations; however, it was only in 2014 that the effective implementation of a TSA started. Several actions were undertaken prior to establishing the TSA: (1) explaining the TSA concept, architecture, and benefits to all the key stakeholders and seeking the buy-in from decision makers; (2) completing an inventory of government bank accounts at the central bank, Banque de la République d'Haïti (BRH), and state-owned commercial bank, Banque Nationale de Crédit (BNC); (3) reviewing budget execution procedures, considering the accounting centers' functions and TSA requirements; and (4) upgrading the information technology systems of both the BRH and the treasury, as well as the system for capital expenditure payments, which was outside the normal process, before establishing the TSA.

In December 2015, a core TSA was established that covered all the central budgetary units (CBUs). This was accompanied by closing the CBU's bank accounts at the BRH and transferring their balances to the TSA's main account. The core TSA comprises a main account and 15 subaccounts to record the transactions of the accounting centers; the subaccounts are zero-balanced daily. An agreement between the BRH and the BNC was signed to ensure the transfer of the collected taxes by the BNC to the TSA within 48 hours.

In 2016, the BRH and the Ministry of Finance signed a cash-management agreement to align the available cash with spending plans to limit the BRH advances to the government, as agreed with the IMF under the Extended Credit Facility program. Access to both BNC and BRH portals was given to the treasury to monitor all the transactions recorded in the TSA and in the key accounts in the BNC. In 2017, a strategy to expand the TSA's coverage to all extrabudgetary units, statutory bodies, and donor projects was

approved. Its implementation, however, faced several challenges, such as updating the laws establishing some public corporations for the purpose of integrating them with the TSA. For the sustainability of the reform, provisions regarding the TSA were included in the new organic law of public finance enacted in 2017.

Sudan

Sudan initiated a TSA in 2004, and implementation proceeded in phases. Implementation accelerated in 2014, and the TSA was operational in 2015.

In the first phase:

- TSA regulations were drafted that related to the accounting system and the responsibilities of key stakeholders (ministries and other government units, the Central Bank of Sudan, and the Directorate of Treasury).
- Accounts in commercial banks were gradually closed, and their balances were transferred to the TSA. Transitional arrangements allowed a few bank accounts to remain in commercial banks to support some ministries in reaching remote areas.
- Commercial banks were still used for revenue collection purposes. The requirements for the transfer of collected revenues were specified in bilateral agreements.

During the second phase (still under implementation):

- A centralized e-payment system was developed.
- EBFs and donor fund accounts were gradually integrated with the TSA. The general principle for the integration was that the cash can be separated from the permission to spend. Subaccounts under the TSA were created to allow the EBFs or other entities with legal authority to retain their self-generated funds, thereby maintaining separate monitoring and accounting controls.

The closing of commercial bank accounts in Sudan was a specific case. In general, one could consider keeping government accounts in commercial banks on a zero-balance basis (after reviewing and rationalizing the number of such accounts), unless sweeping the cash balance from these accounts to the main treasury account/TSA could not be secured due to the lack or fragility of banking infrastructure.

Source: IMF staff.

on currently available cash to pay for priority expenditures rather than project cash balance over a longer horizon (at least three months) to ensure that cash is available when it would be most needed and/or to adjust spending plans to avoid cash rationing.

- Lack of staff capacity to prepare cash forecasts. This lack may reflect the wider shortage of skilled staff, as well as a lack of awareness by senior management of the crucial role of cash flow forecasts in supporting both budget execution and efficient cash management.
- Lack of cooperation and timely information-sharing by other entities. MDAs may provide inadequate information about their current or future cash needs; the revenue authorities may fail to adequately forecast or report their expected receipts; and the central bank may not fully cooperate with the treasury.
- Limited TSA coverage. When many MDAs keep separate bank accounts outside the TSA or treasury's main bank account, treasury's cash forecasting may not cover significant cash flows.

In addition, several issues that have a bearing on cash forecasting, as well as wider cash management, will need to be addressed progressively (Box 5).

Key Measures for the Progressive Development of a Cash Forecasting Function

Progressive development of a cash forecasting function in FS and LIDCs is important to build the credibility of the ministry of finance to pay for priority expenditures when they fall due. Although most FS and LIDCs may lack a robust information network that covers the treasury and revenue and spending agencies—as well as good commitment and procurement planning systems to assist with cash forecasting—they should nevertheless have a basic cash forecasting function. Compared to “cash rationing,” which only focuses on the current cash balance, good cash management requires a longer-term forecast of cash flows and balances to help provide more policy choices. This reform, to be successful, should be implemented in tandem with other cash management reforms, especially the expansion of the coverage of the TSA, which is generally the focus of the cash forecast.

Minimizing the Adverse Effects of Cash Rationing

If cash rationing is being used, the first step is to adopt a structured approach to minimize its adverse effects. Structured cash rationing, which is often unavoidable in many FS, can provide some benefits. In the absence of a cash forecasting system, this practice helps in meeting priority spending needs (such as salaries and wages, debt servicing, security expenditures, and strategic capital investment-related payments) and ensures the continuity of the functioning of the state. For example, Guinea had to establish a cash rationing system during the Ebola crisis in 2014 but has made significant efforts to discontinue the practice since the crisis ended in 2016. Cash rationing, however, often has some significant adverse effects. These include the accumulation of arrears if MDAs continue to commit expenditures beyond the cash availability, with the expectation that payments will eventually be made.⁶ Cash rationing, if not managed properly, can impair the budget process; in this case, the real budgeting happens from month to month or week to week as varying levels of cash, based on availability, are released to MDAs and discretionary decisions are made as to which outstanding bills should be paid (Miller and Hadley 2016). Other adverse effects include unhealthy competition for cash among MDAs and the general perception of opacity and unfairness.

Cash rationing, if necessary for some time, should incorporate the following elements to prevent any adverse effects:

- Cash rationing should build on the seasonal pattern of expenditures to avoid the accumulation of arrears. In South Sudan, for example, a 1/12th current expenditure limit based on 1/12th of budget appropriation was set to accommodate the cash constraints. As this rule did not reflect seasonal requirements, spending agencies had to either delay their procurements/commitments toward the later part of the fiscal year or to ask for an adjustment of monthly expenditure limits.
- Cash limits imposed on MDAs should be periodically reviewed and reset, based on updated forecasts of revenues and other cash inflows. When revenue flows improve, cash limits need to be revised and spending units need to be adequately informed.
- Cash limits should be backed by commitment controls, particularly when the budget is not credible

⁶For example, South Sudan accumulated arrears representing 125 percent of GDP and 500 percent of the budget in 2020.

Box 5. General Issues Hindering Improved Coverage and Quality of Cash Forecasts

Inadequate understanding of the difference between budget data and cash flows data. Budget data in fragile states (FS) and low-income developing countries (LIDCs) will typically require several adjustments of various kinds, in particular, to ensure that they refer to cash and that they fall into the correct time bucket in terms of cash flows. One example is where checks are issued, the budget may record the expenditure on the issuance of the check, but cash will only move when it has been presented and cleared. Payments and cash movements in respect of expenditure commitments or obligations that are outstanding at the end of year may, in practice, be made in the following year. The lack of good understanding of these issues by forecasters affects the credibility of the cash forecast. It is also important to understand the distinction between *accrued flows* (although most FS and many LIDCs do not have accrual accounting in place) and *cash flows* for building cash outturn profiles and cash forecasts.

Use of imprest accounts and lack of reporting on their balances. Because of the low penetration of the banking system in most FS and some LIDCs, MDAs may largely rely on cash transactions, including the use of imprest accounts, with late or no reporting on their utilization. Although the use of imprest accounts is generally regulated in PFM laws, they could be extensively used in practice, including for “normal” expenditures (for example, South Sudan in the initial years after independence). Kiribati and Somalia are examples of countries where imprest accounts are used extensively to allocate funds to MDAs in places where the banking system is not adequate. This process complicates the timely determination of the overall cash position and forward cash planning.

Incomplete information on donors’ disbursement calendars. Uncertainty about donor disbursements may affect the treasury’s payment plan, and the treasury may have to block some of its own cash resources for some time until it receives the expected donor funds.¹ For example, in Mali, donor disbursements, on average, have accounted for 20 percent of the overall budget in recent years, and any change in planned disbursements can significantly affect the available cash

resources. The treasury is forced to cover unforeseen payments with its own resources if they are sufficient, but more often than not, to delay payments. Afghanistan also faced this uncertainty during the transition period when foreign troops were leaving the country. Donor support was declining, but it was not clear to what extent and for how long the support might remain. Strong coordination between donors and the authorities is critical to allow more predictability of the disbursements and avoid—especially in countries highly dependent on donor funds—cash shortages, payment delays, and arrears.

Unpredictable off-budget and/or unauthorized spending. This spending includes payments that are made outside the budget process or that bypass the regular expenditure chain,² particularly when the authorized budgetary allocation is exceeded because of weak budget execution controls. Since the cash flow impact of these payments is not foreseen, they complicate forward cash planning. In Malawi, for example, the external loan drawdowns and repayments did not go through the core treasury system until 2015, giving rise to unexpected payment demands on the available cash. In Guinea Bissau, exceptional procedures for expenditure (the so-called “Despesas não tituladas” [DNT]) allow payments before regularizing them in the expenditure chain.³ These exceptional procedures were originally planned for emergency cases, but they are routinely used for the acquisition of goods and services that do not meet emergency criteria.

Lack of credibility of budget forecasts. Cash planning relies on realistic budget plans. Overly optimistic revenue forecasts result in a shortfall of cash inflows to meet payment obligations. There are many examples of FS and LIDCs with unrealistic budgets (for example, Liberia, Somalia, and South Sudan). In Liberia, for example, overly optimistic revenue forecasts have resulted in recurring revenue underperformance, and, notwithstanding some measures to adjust expenditures, there have been payment delays and a large accumulation of arrears. A similar situation occurs when MDAs do not share their future cash needs with the treasury and budget departments. Haiti, Malawi, and South Sudan are examples of countries where MDAs have

Source: IMF staff.

¹This donor disbursement issue relates to direct budget supports that go to the main treasury account. Their unpredictability impacts cash management. Donor disbursements for projects are typically managed outside of the national systems and are deposited in commercial banks. These have less impact on the treasury’s cash planning.

²For example, Equatorial Guinea, where the president authorizes direct payments because he is the main authorized payer, and Guinea Bissau, where the minister of finance signs the payment of DNTs.

³The main category of DNT, which relates to debt service payments, is now recorded in the government information system once the payment is made.

Box 5. General Issues Hindering Improved Coverage and Quality of Cash Forecasts *(continued)*

been reluctant to provide accurate information on cash needs for budgeting purposes.

Inconsistent information on cash position and challenges with some payment modalities. Delays and inconsistencies in the information collected from bank statements prevent an accurate reconciliation of cash flows and balances in government bank accounts. This has been identified as one of the major issues

in determining the cash position in several FS and LIDCs.⁴ This issue is further exacerbated by floating checks pending encashment or payments from the government's bank accounts that make it difficult to determine cash availability for new payments.⁵

⁴Afghanistan, Guinea Bissau, Malawi, and Myanmar.

⁵South Sudan is a good example of the use of physical cash, while Guinea Bissau is a good example of the use of checks.

and spending units lack discipline in adhering to cash limits. Opportunities for new expenditure commitments should be analyzed against the potential availability of cash, including cash needs for the ongoing pipeline of payments. Controls may need to be different when payments are decentralized,⁷ and their enforcement can be strengthened with complementary measures (for example, by publishing criteria for prioritizing commitments/payments within the cash limit).

- Cash rationing needs to rely on some form of basic cash forecasting. These forecasts are simpler to realize when a TSA is in place or when the authorities have initiated steps to have a consolidated view of their cash position. Where the budget is unrealistic, the previous years' budget realization patterns can be a proxy for the starting point of the forecast, which could then be adjusted, based on real needs and realizations.
- In conflict-affected states with scarce resources, cash limits may need adjustment from time to time, including a potential buffer to cope with unforeseen spending (for example, on security) or to accommodate shifts in spending priorities (see the following discussion on buffers).

Moving from Cash Rationing to Cash Forecasting

In addition to strengthening budget planning that is key to moving away from cash rationing, steps to

⁷In this case, each MDA processes its own payments within an authorized cash disbursement ceiling and directly operates the respective bank account under the TSA system. This process allows centralized cash control, while devolving the responsibility for commitments and payments to the MDA. For more discussion on centralized versus decentralized payment systems, see Pattanayak and Fainboim (2011).

better cash management should be centered on two key principles: (1) progressively putting realistic cash flows in terms of “what will happen” rather than “what is in the budget” at the center of the cash management process; and (2) progressively building a bottom-up approach to cash forecasting and management while continuing to strengthen the top-down approach. It is important that basic cash forecasting should start with large items and adjust to data availability. The mechanisms described for managing cash rationing could also support the move to better cash forecasting and management practices.

When cash outturn profiles for previous years are not available, the approved budget appropriations should be the starting point of the cash forecast—but with necessary adjustments based on budget execution. This exercise should become easier once the budget becomes more and more credible. When MDAs lack discipline in complying with the budgetary limits, as is often the case during the nascent stage of state building in FS, legal and regulatory provisions may require that any spending by MDAs is considered null and void if the expenditure is not authorized within the approved budget or the respective EBF legislation. For example, after the coup in Mali in 2012, when cash rationing was unavoidable, such a provision was instituted to limit the potential accumulation of arrears by budgetary MDAs.

A cash management unit or comparable unit in the treasury should be charged with cash forecasting in coordination with the main revenue and spending agencies. Understanding key revenue streams and spending priorities is critical and therefore involving all the relevant agencies on a regular basis is central to cash forecasting. This is especially important to avoid the accumulation of arrears and allow for important

projects—particularly those necessary for reconstruction and development in FS—to be implemented. For example, in Sudan, weekly budget execution meetings with key MDAs, coordinated by the cash management unit since 2012, facilitated an agreed calendar of cash releases to MDAs consistent with the budget and cash limits. A further advantage of such meetings was to limit the commitment of unfunded expenditures.

The cash forecasting function should cover progressively the following elements: (1) identifying the outflows and inflows that should be included in the cash forecast; (2) achieving broad agreement with the main spending and revenue agencies for the timely submission of their cash flow information to the treasury; (3) preparing and securing approval by the treasury of a cash forecast/plan, ideally using an excel spreadsheet template; and (4) defining the cash forecasting horizon—at least three months ahead and updated regularly, at least on a monthly basis. Developing a basic cash forecasting function when the budget is unrealistic will require establishing a baseline—using data from budget estimates—and adjusting them, based on the historical profile of cash flows under various categories, supplemented by updated information on actual cash inflows and outflows, as well as macroeconomic developments during the year. This mechanism is elaborated in the cash flow forecasting tool (Williams, Hurcan, Nguenang, Pattanayak, Ryan, and Gallardo 2021) that has been prepared as a complement to this note (Box 6).

To arrive at a reasonable forecast of cash outflows, the treasury could begin with a two-pronged approach: (1) get a handle on larger expenditures, some of which may be predictable—such as salaries, transfers to lower levels of government, and debt service—and where past experience is also relevant; and (2) for other expenditures—in particular, capital expenditures or significant goods and services purchases—the treasury should build a relationship with finance officials in the larger MDAs or project management offices to get timely information.

In addition, the treasury should work with the debt office and MDAs to address data gaps and improve the quality of cash outflow estimates. For example, information about the timing and amount of debt servicing is sometimes not shared in advance with the treasury, the debt database may be incomplete, and the impact of exchange rate or interest rate changes on debt service may not have been calculated. Cash flow information provided by MDAs may simply be based

on budget forecasts, which are frequently unrealistic, and may exclude off-budget payments. MDA systems to record commitments, when in place, may not record the expected timing of payments.⁸ For example, in Equatorial Guinea, the lack of information on capital expenditure commitments led to an accumulation of arrears above 20 percent of GDP in 2016.⁹

Cash inflows in FS and LIDCs—which mainly comprise collections of various categories of revenue, donor aid disbursements, and debt proceeds—exhibit some common features. The structure of cash inflows can be different depending on country-specific circumstances, but some common features can be observed for most FS and LIDCs: (1) the importance of external grants from donors (see Figure 1);¹⁰ (2) the dominance of trade taxes in revenue collection; (3) the frequent optimism bias in forecasting revenues that tends to push expenditures upward;¹¹ and (4) the unpredictability of timing of certain types of cash inflows due to a weak understanding of their seasonality.

To arrive at a reasonable forecast of cash inflows, the following steps could be taken: (1) the forecasters will need to distinguish between tax and nontax revenues; (2) the information about expected tax inflows should be provided by the revenue authorities—optimism bias often arises from the ministry of finance’s (or ministers’) unwillingness to accept the revenue authorities’ forecasts, which makes it important for the treasury function to have an input into the budget process;¹² (3) the treasury may identify some nontax revenue streams with large flows and try to get advance information from the respective MDAs, while using past

⁸It is important to introduce systems to keep track not only of payments but also of commitments and expenditure arrears. Regular monitoring of high-value commitments in the pipeline (and assessing their impact on cash projections), and data on unpaid bills/arrears should inform cash projections and planning. At the same time, rationing of cash and delays in budget releases will tend to bunch expenditures toward the end of the year, again complicating cash planning.

⁹See IMF (2019).

¹⁰The unpredictability of donor fund flows complicates cash planning and affects budget execution, particularly in cases of grants and program loans from donors. Sometimes, project-related donor funds also require counterpart funds from the government before being disbursed.

¹¹See IMF (2018).

¹²When cash managers use the information provided by macro-fiscal or revenue units in the ministry of finance, they need to keep in mind that these units are also concerned with the budgetary targets; accordingly, it is important to involve revenue authorities in the cash forecasting process to incorporate revenue collection patterns during the year.

Box 6. The Cash Flow Forecasting Analytical Tool

This analytical tool, published in parallel with this note, comprises an excel spreadsheet and related user guide. It is designed to support the preparation of cash forecasts and the decisions that flow from them. It is designed primarily for the practitioner: for the use of those, in the treasury or elsewhere, with responsibility for preparing cash flow forecasts. It also makes recommendations on the presentation of the forecasts and related policy advice to senior decision makers.

The tool will enable practitioners to construct cash forecasts for the budget year, as well as adjust the forecasts throughout the year as outturn data become available. The focus is on monthly forecasts, but it has the facility to support weekly forecasts as capacity grows within the forecasting function. It is primarily a top-down mechanism that relies on known flows for higher order items and on past patterns. However, it is able to incorporate bottom-up information, including projections from MDAs and revenue authorities (RAs) as that becomes increasingly available. Initially, cash managers could request early warning information from MDAs (for example, one week in advance) on their expected large payments above a threshold amount. Weekly forecasts, as they develop, are likely to rely more heavily on inputs from the MDAs and RAs.

The intention should be to cover at a minimum all the cash flows that have a material impact on the central government's bank balances. The tool is linked in the first instance to the annual budget. As the budget year proceeds and outturn data are incorporated, however, the forecasters will be asked to update the prospect for the remaining months of the budget year. It encourages a particular focus on

Source: Williams, Hurcan, Nguenang, Pattanayak, Ryan, and Gallardo 2021.

the months immediately ahead (potentially extending into the following year), with a rolling forecast at least three months ahead and ideally more. Such a forecast will give guidance to decisions on how to ensure cash adequacy, whether those decisions relate to financing of the budget or the pace at which the budget is executed.

The bottom line of the forecast is the projected balance in the Treasury Single Account (TSA), or more strictly, the cash balances over which the treasury has direct control. This will require adjustments to reconcile budget flows and cash flows, specifically, cash flows across the TSA. The tool provides for these and the guidance note offers several examples of the adjustments that might be made and how, as well as examples of how to incorporate outturn data and take them into account in forecast revisions. The forecast presentation format categorizes flows simply as inflows and outflows because it focuses the users on the financing choices, which are usually the main policy variable open to the government in the event of in-year divergences from plan as the budget is executed.

The tool comprises several worksheets and follows the logical structure of putting together a cash forecast for a budget year. Essentially, the components of the forecast add to a summary forecast, which, after required adjustments, in turn, feeds a worksheet that will support decision making. In addition to the required user inputs to create the cash forecast and revised cash forecast, users will be able to input data to illustrate the sensitivity of the projections to certain risks or the impact of different scenarios; the analytical worksheet will also inform discussions of policy responses to the projections. Several charts are included (that can be user defined) to provide visual aids to decision making.

patterns for the smaller nontax revenue streams; and (4) the forecasts should probably make some allowance for “leakage:” the (illegal) retention by some MDAs of some of the revenues for their own purposes—a problem that is not unique to FS but characteristic of all states with a weak internal control regime. As for donor disbursements, a strong coordination framework between donors and the authorities would facilitate better predictability of these inflows.

To start, a basic cash forecasting system can be implemented, bearing in mind that existing limitations cannot be fully eliminated but could be mitigated by focusing on the larger and more predictable cash flows (Box 7). The cash outflows could be categorized and prioritized according to their value, predictability, and priority payment needs. The same principle could also be applied to cash inflows by focusing on main sources of receipts.

Box 7. Categorizing Cash Flows according to Their Predictability and Seasonality

Cash outflows from greater to lesser predictability

Salary payments. These are predictable and easy to calculate and schedule and often constitute the largest cash outflows.

Debt servicing payments. These are mostly predictable and are usually large amounts.

Current expenditure payments. Utilities and other recurrent expenditures are often predictable but are more difficult to schedule within the year. The treasury should conduct an exercise to identify which expenses are included in this category and which are relevant/necessary for the country, according to its specific characteristics as a fragile state (FS) and the weight and predictability of those expenses.

Capital expenditure payments. Capital expenditures—or expenditures on public investment projects—are often unpredictable and difficult to schedule within the year, and they may be large as well, although they might follow seasonal patterns. Some investments might be predictable if there is an agreement with the investment provider, such as donors, although the expenditure may be offset by the donor's contribution.¹ The relevant ministry, department, or agency or project management office should provide forecasts for large domestically managed projects.

Payments to clear arrears. These are difficult to estimate from the budget or previous years, especially in the absence of accrual accounting or when arrears are not properly recorded and disclosed. Allowances would need to be made for the clearance of arrears carried forward from previous years.²

Off-budget payments.³ These are generally unpredictable unless some type of early warning procedure can be put in place.

Source: IMF staff.

¹The management of investment expenditures in FS is typically characterized by the absence of commitment controls—or at least recording of commitments—with no advance information on expected future payments.

²See Flynn and Pessoa 2014.

³According to the definition of EBFs (see IMF 2018) and Allen and Radev (2010), an off-budget payment might be

Cash inflows according to predictability and seasonality

Nontax revenue receipts. Many FS obtain most of their nontax revenues in some periods of the year from the sale of seasonal agriculture products, such as, for example, cashews in Guinea Bissau.

Tax revenue receipts. Revenues from imports may be concentrated in some periods of the year, as in Equatorial Guinea. Income taxes and property taxes are typically collected in defined periods.

Budget support receipts. Inflows from budget support are fungible but often unpredictable. Regular coordination and communication with donors will help provide updated information on expected flows.

Proceeds of debt disbursements. Program loans are often highly unpredictable. However, if they come from regular donors, it might be possible to agree on a provisional schedule that is periodically updated. Project-related donor flows are also difficult to forecast, but that is less of a problem as far as the donor's contributions are linked in time to expenditures on the project. The forecaster's focus should then be on the need for local counterpart funds and risks that any delays in the expected donor disbursements would require the treasury to advance payments from its own resources.

Proceeds of domestic securities issuance. The timing of the issue of treasury bills or other domestic instruments is fully under the control of the ministry of finance/treasury (in consultation with the central bank), but allowances will need to be made for the possible failure to raise as much as intended because these types of instruments depend on domestic market conditions.

defined as any payment stemming from government transactions, often with separate banking and institutional arrangements that are not included in the annual budget law/budget of the government.

Actual cash flows or outturns should be compared with forecasts to identify the specific drivers for variances, both to inform action immediately ahead and to learn lessons to improve the quality of future forecasts.

For comparability and analysis purposes, the information on the actual realization of cash inflows, outflows, and balances in bank accounts should be consistent with the forecasting framework.

Although the treasury's cash forecast will focus on the flows and balances in bank accounts under its control, the treasury could also monitor the overall government cash balance periodically. The treasury in FS and LIDCs may face some challenges in getting the relevant information for monitoring the overall balance, especially when it does not have a complete list of government accounts maintained in commercial banks. In addition, weaknesses in the bank reconciliation function, time lags in sweeping cash (both within commercial banks and between them and the central bank), and the use of certain payment mechanisms such as checks or imprest accounts increase the uncertainty regarding the cash available to meet payment obligations.¹³ To arrive at a reasonable assessment of the overall cash balance position, a three-pronged approach could be taken: (1) periodically taking stock of balances in bank accounts (for example, quarterly or monthly), focusing initially on accounts with large balances; (2) relying on the central bank to monitor government bank account balances and identify those that have not been approved by the ministry of finance/treasury; and (3) signing an agreement with the banks to provide the treasury with an overall picture of the government cash position with them, in addition to the detailed bank statements to respective line ministries and agencies.¹⁴

As the country increases its capacity to collect and analyze cash flow information, the coverage and quality of the cash forecast should be further expanded and refined. An incremental approach should be taken. For example, (1) some other categories of receipts and payments could be added to further increase the coverage and accuracy of cash forecasting; (2) the granularity of the forecasts should be increased from monthly to weekly; and (3) the cash forecasting horizon should be expanded from three months to, say, six months ahead, with updates on a weekly basis. This incremental approach could be implemented using the following steps:

- Review and adjust cash flow forecasts with increasing frequency to improve their accuracy. Compare the actual amounts of payments and receipts with the initial cash forecast to make corresponding adjustments to the cash forecast of the next period.

¹³For discussion on the timing gap between revenue and expenditure flows, see Lienert (2009) and Pattanayak (2016).

¹⁴For the key elements of a service-level agreement between the treasury and banks, see Williams (2010).

This exercise will help prevent, for example, the future overestimation of inflows and underestimation of outflows.

- Increase the range of inputs into the forecasts. Expand the forecasters' network of contacts among MDAs and the revenue authorities and regulate for systematic reporting.
- Frequently review the reliability of forecasts provided by MDAs and RAs. Doing this will allow for an early assessment of their accuracy and determine the reliance that can be placed on them in the future. The review could follow the sequence from predictable to unpredictable cash flows (Box 7).
- Take frequent stock of government bank accounts and their balances. This stock-taking exercise should include a review of any new bank accounts opened during the year, as well as the steps required for the ministry of finance or treasury to approve the opening of new accounts by MDAs if such a provision does not exist.

In cash forecasting, cash and debt managers should look at the financing requirement and not simply the budget deficit. Given that the amortization of debt (principal payments) is typically not budgeted, it should be incorporated in the cash forecast as part of the financing requirement.

V. Managing Cash Balances and Ensuring Institutional Coordination

Identifying Short-Term Financing Options to Address Seasonal Cash Shortfalls

Depending on the status and type of fragility, countries' short-term financing/borrowing options to cope with seasonal or other cash shortfalls vary.¹⁵ The capacity of financial markets to meet the government's urgent liquidity needs is a major weakness in FS and some LIDCs.¹⁶ Cash management in these countries is severely constrained by shallow domestic debt mar-

¹⁵The legal framework should provide that the authorization to borrow resides in parliament or another high-level body (such as the Council of Ministers), complemented by an appropriate delegation of authority to allow flexibility for cash managers and debt managers to use certain short-term instruments.

¹⁶Several FS face high inflation rates and active parallel exchange markets, with large gaps between the official and parallel market exchange rates. High inflation and parallel exchange rates generally make the country unable to secure further borrowing domestically and internationally and even sometimes from international financing

kets and there is a need to develop domestic security markets, as well as strengthen cash management. Even if the financial market exists, high-risk premiums will imply high interest rates. Financial sector weaknesses in FS also increase the risks and hence the cost of financing (Obidegwu 2004). Debt management capacity is limited in FS and several LIDCs; sometimes, it is the central bank that issues short-term maturity treasury bills (T-bills) on behalf of the government, as was the case in South Sudan.

In the absence of domestic debt markets, the most common approach to handling seasonal or in-year cash shortfalls in FS and some LIDCs is to take short-term advances (or “ways and means” loans) from central banks. When an FS or LIDC cannot access the financial markets easily, its financing requirements are often met by the central bank, including, for example, through central bank advances or overdrafts. Under normal circumstances, it is desirable to pay back the short-term advances in the same month or by the end of the financial year at the latest. However, this is typically not the case in FS, which potentially puts further pressure on central banks’ monetary policy operations as they try to drain the extra liquidity created. Short-term advances from central banks, as well as their terms and conditions and repayment by the ministry of finance, are generally specified in central bank acts.

If there is a legal limit on the overdraft from the central bank, the other option to meet cash shortfalls is short-term borrowing from domestic commercial or state-owned banks. Although the government pays interest on such borrowing, shallow financial markets in FS and several LIDCs mean that in terms of monetary policy implications, this borrowing will have the same effect as direct borrowing from the central bank if the commercial bank has to borrow from the central bank to meet its own short-term cash needs.

International aid, whether grants or loans, and debt relief¹⁷ are another source to meet cash shortfalls in FS and LIDCs. However, uncertainty in aid inflows complicates how FS can factor them into their cash forecasting and planning. Preparing two cash forecasting scenarios—with and without aid disbursement/inflows—could be an option for FS and LIDCs while planning their budget execution and cash availability.

institutions until the outstanding arrears to them are cleared (Obidegwu 2004). Zimbabwe is one recent example of such countries.

¹⁷For example, debt relief under the Debt Service Suspension Initiative in the wake of the COVID-19 pandemic.

As an FS develops and there is some stability, other borrowing options should open up, initially the issuance of T-bills and subsequently T-bonds. Borrowing through securities issuance has several advantages, because it will tend to stimulate the development of the money market and wider capital markets and thereby benefit the whole economy. More liquid instruments will, over time, bring down the cost of borrowing and facilitate active cash management.

The impact of high inflation and exchange rate fluctuations in some FS and LIDCs should be factored into cash forecasting and decisions about the optimal level of cash holdings. Several FS and LIDCs have relatively higher (and more volatile) inflation rates. At times, they have fiscal revenues and obligations that are denominated in foreign currency (for example, revenues from hydrocarbon exports and payments for gasoline/fuel and other imported commodities). To take account of the effects of high inflation and exchange rate fluctuations on government revenue and obligations, cash managers in FS and LIDCs need to closely coordinate with macro-fiscal revenue and budget staffs in the ministry of finance and use scenario analysis. If foreign currency-denominated obligations are high, some part of the cash cushion or cash buffer can be kept in foreign currency.

Building a Buffer to Meet Any Unforeseen Demands for Cash

It is important to have the right balance between maintaining a cash cushion, or buffer, to meet urgent cash needs, on the one hand, and the cost of carry in a cash-constrained environment, such as in FS or LIDC, on the other hand.¹⁸ The target buffer level often refers to a lower bound for the government’s cash balances. Whatever the policy on a targeted cash buffer, cash managers should aim to ensure a positive cash balance in government bank accounts at all times. Increasing cash balances to meet a target level requires financial resources, but overborrowing should be avoided.¹⁹ The approaches adopted in determining the target buffer level depend on a combination of factors that relates

¹⁸A cash buffer is different from keeping a cash cushion. The latter is fairly common in government cash management. Maintaining a cash buffer implies systematically and explicitly identifying the minimum amount of cash reserves as a policy target.

¹⁹Some countries have often resorted to overborrowing—that is, borrowing more than required by the fiscal deficit—to accumulate the funds needed (Cruz and Koc 2018). There are also cases where some budgetary resources and one-off revenues, such as privatization receipts, have been put aside to build the buffer.

to the volatility of cash flows and the ability to forecast and manage them, the objectives in risk management, the availability of other risk mitigation mechanisms, and the cost of carrying the buffer (Hurcan, Koc, and Balibek 2020). The use of the cash buffer for urgent and unexpected cash needs should be regulated (for example, there should be clear criteria of access) and should be subject to appropriate oversight in line with government expenditure controls.

In FS and some LIDCs, using IMF resources or international aid flows could be options to build up a cash buffer. If there is budget support in an IMF-supported lending program, that component can be used for cash buffer purposes. Similarly, international aid flows could be accumulated to build up a cash buffer. Sometimes, FS and LIDCs also keep a ring-fenced account in central banks to cover urgent and unexpected cash needs. However, keeping idle cash in such ring-fenced accounts should be evaluated similarly to the cash buffer calculation by trading off the reduced risk from the extra cushion and the cost of carry. Other options include setting up credit lines with commercial banks.

Managing the Relationship between the Ministry of Finance and the Central Bank

The government's cash and debt management functions potentially have a substantial impact on the domestic monetary conditions in FS and LIDCs, and these activities need to be coordinated with the central bank's monetary policy operations. This need for coordination between the debt and cash managers and the central bank—including the timing and amount of government payment and revenue collections, as well as the issuance of debt—is especially important in FS if the central bank lacks adequate monetary policy instruments of its own and makes use of T-bills to control domestic liquidity. In some cases, the central bank fully controls T-bill issuance for monetary policy purposes. The ministry of finance or treasury should also share its forecasts of government cash flows with the central bank since they are an important input into the bank's own liquidity forecasts (Pessoa and Williams 2012).

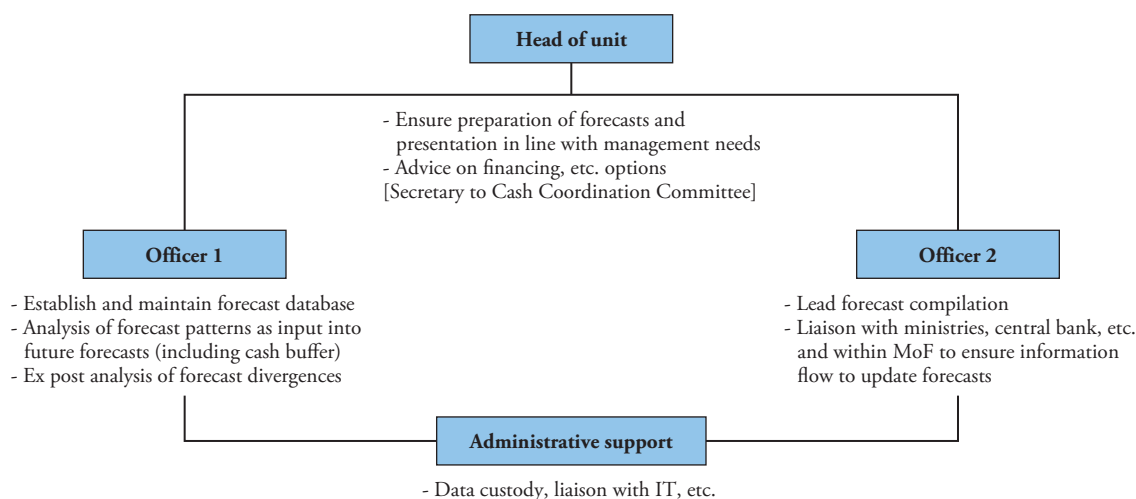
Ministries of finance and central banks in FS and some LIDCs face challenges in meeting their different responsibilities, whether for policy or operational execution. The most obvious is the policy separation for debt issuance. The central bank is usually the fiscal

agent of the government, providing the depository and paying agent function for government debt and handling securities auctions, but the ministry of finance should set the policy and the amount to be issued and the interest rate to be accepted following the auction. In terms of cash management, these roles must be equally as distinct: the central bank is providing a service to government as its banker and, as asked, should execute the financial operations decided by the ministry of finance.

The respective roles of the central bank and the ministry of finance/treasury should be defined in a service-level agreement (SLA). These distinct roles and responsibilities can be challenging to deliver in cases of fragility, especially during conflict outbreaks and institutional collapse. The most common challenge in FS is government financing by the central bank, especially when the country loses financing from the international community and does not have access to the financial market. For example, this was the case in Guinea after the coup in 2008. To avoid macroeconomic shocks (such as increased inflation) because of such a practice, if a conflict-afflicted state has to resort to central bank advances, they should be limited in time and strictly managed through an SLA that provides for the reimbursement modalities (such as timeframe, amount, and interest rates).

The relationship between the central bank and the ministry of finance needs to evolve with the strengthening of treasury functions at the ministry of finance to better clarify their respective roles. For example, in extreme cases, the central bank may assume responsibility for making government payments or collecting revenues in FS. This practice was followed in Guinea where, after the coup in 2008, the central bank functioned as the revenue collection agency instead of the dysfunctional revenue administration. Another example is Haiti, where the central bank, in conjunction with the tax administration, collects revenues on behalf of the ministry of finance, using its own personnel.²⁰ In Yemen, even before the armed conflict started, treasury functions were carried out by the central bank. After

²⁰In regions where the central bank is not present outside the capital, the state-owned commercial bank—BNC—is in charge of revenue collection and its transfer to the TSA. The tax administration is not involved in collecting revenue in cash. However, although their amounts are not significant, some customs duties are collected in cash by customs administration staff and then deposited in the BNC in some unbanked points of import.

Figure 3. Indicative Task Distribution among Staff of CFU

Source: IMF staff.

the armed conflict started, payments for key government expenditure items, such as salaries, were made directly by the central bank. Such a role by the central bank conflicts with its monetary policy goals and operations. The ministry of finance should strengthen its treasury functions to progressively take over this role, with concomitant changes to the central bank's role. For example, the implementation of a TSA will be accompanied by a parallel adaptation or upgrading of the central bank system and backed by an SLA (Pessoa and Williams 2012). As the cash management function develops, monetary policy management at the central bank will develop as well (Pessoa and Williams 2012).

Establishing an Institutional Mechanism for Cash Management Decisions

In the face of weak human resources capacity in most FS and some LIDCs, a key issue is an appropriate institutional structure with a minimum set of skills to forecast and manage cash flows. This would include the following: (1) the location of the cash forecasting function and specific roles and responsibilities of that function; (2) coordination arrangements to ensure information sharing and enable policy coordination; and (3) a clear mechanism to take policy decisions that flow from the cash forecast, including decisions to address temporary cash shortfalls and manage any surpluses.

The specific location of either a cash forecasting unit (CFU) or a wider cash management unit (CMU) within the ministry of finance depends on many factors. In functional terms, the outcomes of the CFU or CMU need to be linked both to budget execution and to those using the cash forecast: the debt management function or whoever is responsible for short-term borrowing or other financing operations. In practice, the CFU or CMU may be part of the treasury. This makes sense insofar as the treasury has main day-to-day interactions with MDAs and revenue agencies. However, if the debt management function is separate from the treasury, forecasting responsibilities may lie with the treasury or be split—for example, the treasury may be responsible for forecasting revenue and expenditure-related cash flows and the debt management unit may be responsible for forecasting financing flows.

The CFU does not require a large staff to perform the forecasting function. A small unit (perhaps only three to four people) might be sufficient to prepare a basic cash forecast, with a task distribution among the CFU staff, as proposed in Figure 3. The main responsibilities of the CFU should be the following: (1) to prepare forecasts of government cash flows and balances (for example, for the next three months) to be circulated to senior management or members of the relevant committee; and (2) to advise senior management/committee on policy responses—the CFU is expected to make recommendations about responses

Table 1. Information Providers for Cash Forecasting

| Information required | Information Provider | Document |
|---------------------------------------|---|----------------------------|
| Cash balances | Commercial banks/central bank | Bank statements |
| Large expenditure outflows | Main MDAs/accounting department | Expenditure forecast |
| Tax revenue inflows | Macro-fiscal function/department, revenue or tax policy department, and revenue and customs administrations | Revenues forecast |
| Large nontax revenue inflows | MDAs in charge of collection | Revenues forecast |
| Debt inflows from securities issuance | Debt management unit | Debt issuance plan |
| Grant inflows from donors | Relevant donor coordination unit | Donor agreement |
| Multilateral/bilateral debt inflows | Debt management unit | Loan agreement |
| Outflows related to debt service | Debt management unit | Debt amortization schedule |

Source: IMF staff.

to the forecasting challenges, including any anticipated cash shortfalls.

A CMU that is constituted with somewhat wider responsibility may require more staff compared to a CFU. However, the option of CFU versus CMU will depend on country capacity and whether there are sufficient skilled staff for a CMU to function effectively. Initially, a simple CFU should be considered. Indeed, at the initial development stage of FS, setting up an integrated office would be better, but it should have restricted functions to ensure that limited country capacity is used in the key positions of the unit (Annex 1 provides an illustrative list of functions).

Whichever option is adopted for the cash forecasting function, effective coordination among the relevant institutions is key to obtaining the necessary information and enhancing the quality of cash forecasts. The more critical the information, the stronger the relationship should be with the respective information provider (Table 1 provides an illustrative list):

- If there is a separate debt management function/unit, establish a close working relationship between this unit and the CFU to regularly share information on debt issuance and redemption plans and the expected timing of cash shortfalls or surpluses in the cash flow forecasts.
- Arrange the flow of information from budget and macro-fiscal departments, tax policy and revenue administration, and others, as necessary, on any changes in expenditure, revenue, or financing policies that might have implications for the profile of cash flows.
- Agree with the central bank and other banks, if any, on procedures for the movements of cash between different government bank accounts, as well as on information sharing between the ministry of finance and the central bank relating to cash forecasts and the cash balance and flows in the TSA.

- Establish a mechanism for regular communication (weekly or daily) between the CFU and large MDAs/revenue agencies to obtain information on anticipated expenditures and revenues, as well as timely indication to MDAs on any necessary cash rationing measures (for example, deferring some discretionary expenditures or prioritizing payments for certain invoices).

There should be clear institutional arrangements for taking decisions that flow from cash forecasts, including which government units need to be involved and their specific roles. For example, the CFU may need to liaise with the debt management function/unit depending on the split of responsibilities. Decisions on cash management will center on the following key issues: (1) accessing markets through the debt management function or using any available credit line from banks to meet short-term financing needs; (2) deciding whether to postpone some payments to make room for priority/unavoidable payments; and (3) defining how the cash forecasting function can support cash management and budget execution.

A cash coordination committee (CCC) or similar entity could provide a useful forum to take decisions and enable coordinated actions to address cash management challenges. The CCC would bring together the relevant institutional actors and functions to review the latest cash flow forecasts and decide on anticipatory policy actions. (Box 8 provides an example of such a committee in Guinea Bissau). The CFU can play the role of CCC secretariat and advise the CCC on the following: (1) the risks associated with the forecasts (including sensitivities); (2) the implications for future borrowing programs or financing options, considering the previously agreed financing plan; and (3) other actions, including transfers between domestic and foreign currency accounts or delays in payment process-

Box 8. Example of a Treasury Committee: Guinea Bissau

Until September 2020, the Treasury Committee in Guinea Bissau comprised representatives from the Revenue Agency, Budget Directorate, Treasury, Debt Unit, and main ministries, departments, and agencies. It was chaired either by the minister of finance, the prime minister, or the president, with authority to ensure the enforcement of the committee’s decisions. In September 2020, the composition of the committee was streamlined to allow for improved efficiency. The committee is now chaired by the minister of finance and comprises the secretaries of state to the budget and the treasury; the general directors of budget, treasury, debt, taxes, customs, and forecast; a representative of the Ministry of Fishery; and a representative of the national branch of the Central Bank of West African

States. The committee coopts agencies in charge of the largest streams of revenues and expenditures and takes the following key decisions:

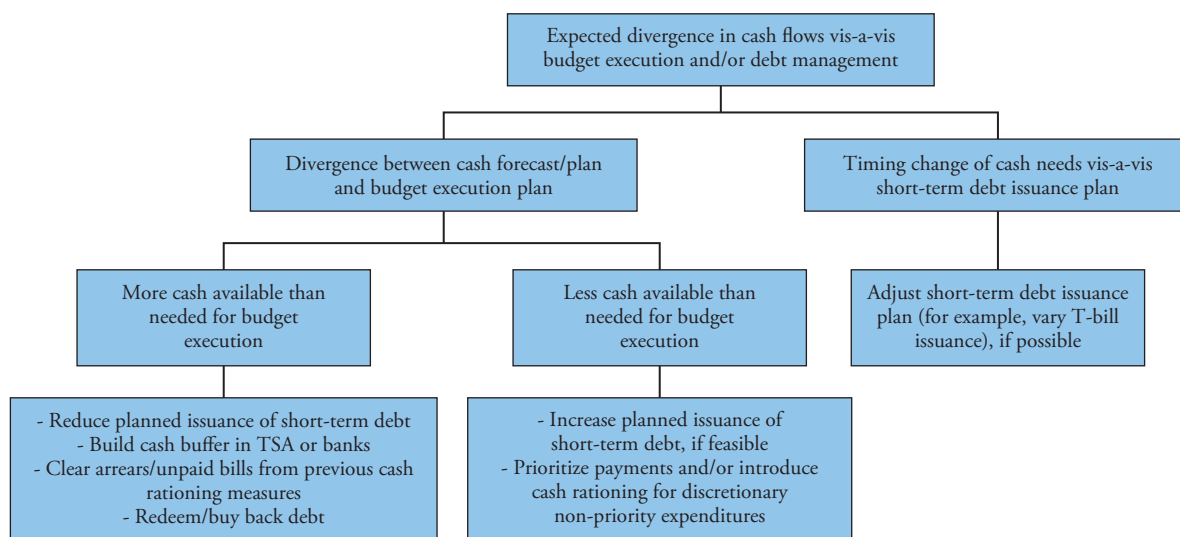
- Approving the annual cash flow plans and policy actions, based on the general budget
- Approving the monthly/weekly cash flow projections and analyzing the actuals
- Assessing and approving the expenditure plans, as decided by the Budget Committee (Comité Técnico de Arbitragem das Despesas Orçamentais—COTADO), based on the priorities and the available funds
- Following-up on the implementation of the cash flow forecast/plan
- Ensuring the implementation of COTADO recommendations

Source: IMF staff.

ing. The cash forecast prepared by the CFU supports cash and debt management and budget execution, and decisions by the CCC may depend on the nature of any divergence (see Figure 4). Although this set-up sounds too complex for FS, it is important to have the proper flow of information and a decision-making process while spending the limited cash in such coun-

tries. The suggested set-up is to show the important information, tasks, and functions to be executed while addressing cash management challenges.

Figure 4. Cash Management Decision Flow Chart



Source: IMF staff.

Figure 5. Focus Areas of Forward-Looking Diagnostic

| Starting Point | Constraints | Opportunities |
|---|--|--|
| <ul style="list-style-type: none"> • Government bank accounts structure and cash consolidation • Role of the ministry of finance vis-a-vis line ministries in payments and revenue collection • Role of central bank and commercial banks • Payment system and means of collection and payment • Reporting of cash flows and balances by banks and bank reconciliation • Cash forecasting practices • Institutional arrangement for cash management decisions • Policies and tools for managing short-term liquidity needs • Coordination with debt and monetary policy • Related legal framework | <ul style="list-style-type: none"> • Banking system constraints (low geographical coverage) • Incomplete information on government bank accounts • Lack of budget credibility • Lack of domestic financial market for short-term credit • Uncertainty of donor flows • Large stock of arrears • Huge reliance on cash payments • Requirement of ring-fencing of some cash resources • Lack of access to technology/IT systems • Low staff capacity • Absence of a treasury function in the ministry of finance • Weak accounting framework • Lack of clarity in the legal framework | <ul style="list-style-type: none"> • Constitutional/legal backing for centralization of cash/funds • Political commitment to reform (for example, TSA reform) • Cooperative central bank • FMIS system being planned/implemented • Development of EFT, core banking system, RTGS, modern payment system • Centralized payment system in place/planned • Good coordination between cash management and budget • Flexibility in temporary use of donor resources to meet seasonal cash shortfall • Appetite of banks to upgrade service standards for government business • Planned measures to foster domestic financial market |

Source: Boukezia, Gros, and Pattanayak 2021.

VI. Developing a Sequenced Strategy for Cash Management Reforms

Once the starting point/initial condition is ascertained and key cash management issues are identified in an FS, it will be important to develop a reform strategy to implement measures in a sequenced manner to progressively build cash management capacity. The reform strategy needs to take account of absorptive capacity and any political economy-related constraints (for example, putting in place a TSA system may encounter strong resistance from powerful actors), including those associated with donor activities.

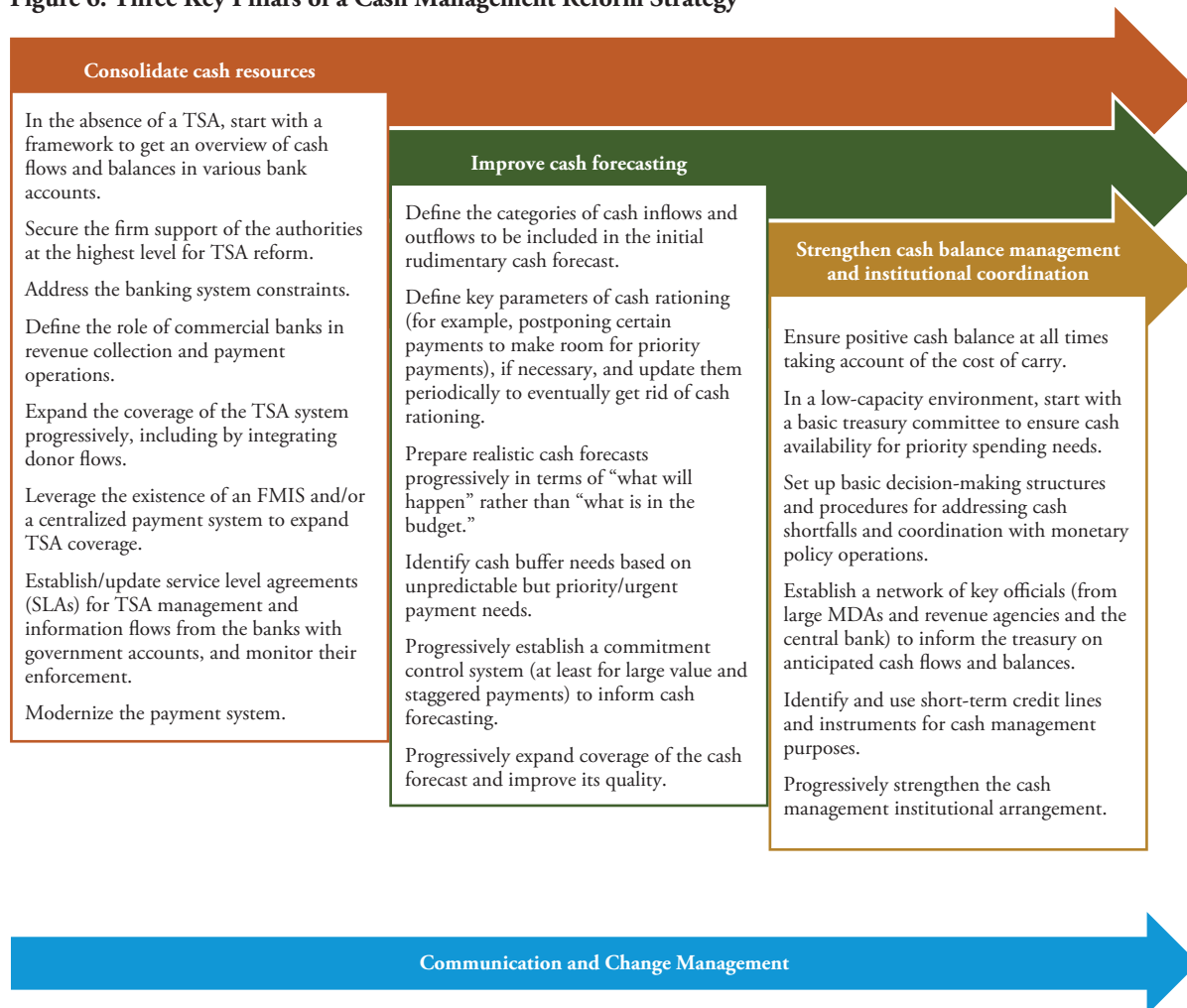
Conducting a Diagnostic to Understand the Context and Institutional Weaknesses

A forward-looking diagnostic is key to understanding the starting point, constraints, and opportunities for reform. Its findings could inform a holistic strategy for strengthening cash management in an FS. As part of the Cash Management Guidance Toolkit for FS and LIDCs, this note is complemented by a questionnaire-based diagnostic tool. The tool is built around three pillars (Figure 5) and has some key indicators to assess the starting point and identify reform priorities, as well as monitor progress as the cash management reform proceeds.

Identifying Reform Priorities and Developing a Sequenced Reform Strategy

The reform strategy to develop cash management capacity in FS and LIDCs should cover the three key building blocks: (1) consolidating cash resources through a TSA system; (2) improving cash forecasting; and (3) strengthening cash balance management and institutional coordination for decisions (Figure 6). Reforms along each of these dimensions do not need to be started at the same time. They can proceed in parallel. As the reforms progress along these dimensions, the interlinkages among them should be explicitly identified and considered in updating the strategy to derive the full benefits of cash management reform. These reforms should be accompanied by proactive communication and outreach to all key stakeholders—including treasury and other relevant agencies in the ministry of finance, line ministries/spending agencies, revenue agencies, the central bank, commercial banks involved in government payment and revenue collection, any others in the financial market, and donors—and a change management strategy to institutionalize and sustain the reform.

Figure 6. Three Key Pillars of a Cash Management Reform Strategy



Source: IMF staff.

Annex 1. Illustrative List of Functions of a Cash Management Unit (CMU)

- Prepare the cash forecast and make comparisons with previous cash and budget forecasts with data provided by the back office.
- Focus CMU core business on ensuring cash availability to make payments due, and on prompt receipt of revenues; FS usually do not have the expertise for more active cash management.
- Centralize the monitoring of bank balances and cash flows, initially focused on large inflows and outflows; involve the main managers of these flows; and rely on the central bank to monitor the opening of government bank accounts or identify those that have not been approved.
- Adopt a phased approach to forecast and monitor cash flows based on their predictability: debt disbursements, reimbursements, and servicing; main categories of expenditures and revenues; and other predictable payments and receipts.
- Track information on daily cash inflows and outflows and daily overall cash position.
- Determine which basic tools the CMU should use (such as excel spreadsheets) for preparing cash forecasts.
- Sign an agreement with banks to have a quick overall picture of the cash position for each bank, in addition to the detailed banks statements.

References

- Allen, Richard, and Dimitar Radev. 2010. "Extrabudgetary Funds." Technical Notes and Manuals, International Monetary Fund, Washington, DC.
- Boukezia, Racheeda, Jean-Baptiste Gros, and Sailendra Pattanayak. 2021. "Questionnaire Based Diagnostic Tool to Assess Cash Management Capacity." International Monetary Fund, Washington, DC.
- Cruz, Pedro, and Fatos Koc. 2018. "The Liquidity Buffer Practices of Public Debt Managers in OECD Countries." OECD Working Papers on Sovereign Borrowing and Public Debt Management No. 9, OECD Publishing, Paris.
- Flynn, Suzanne, and Mario Pessoa. 2014. "Prevention and Management of Government Expenditure Arrears." Technical Notes and Manual, International Monetary Fund, Washington, DC.
- Hurcan, Yasemin, Fatos Koc, and Emre Balibek. 2020. "How to Set Up a Cash Buffer: A Practical Guide to Developing and Implementing a Cash Buffer Policy." How-to Note, International Monetary Fund, Washington, DC.
- International Monetary Fund (IMF). 2017. "Building Fiscal Capacity in Fragile States." IMF Policy Paper, Washington, DC.
- International Monetary Fund (IMF). 2018. *Fiscal Transparency Handbook*. Washington, DC: International Monetary Fund.
- International Monetary Fund (IMF). 2018. "Republic of Equatorial Guinea." IMF Country Report No. 18/146, International Monetary Fund, Washington, DC.
- International Monetary Fund (IMF). 2019. "Republic of Equatorial Guinea." IMF Country Report No. 19/384, International Monetary Fund, Washington, DC.
- Lienert, Ian. 2009. "Modernizing Cash Management." Technical Notes and Manuals, International Monetary Fund, Washington, DC.
- Miller, Mark, and Sierd Hadley. 2016. "Cash Management in Cash-Constrained Environments: A Public Financial Management Introductory Guide." Overseas Development Institute, London.
- Obidegwu, Chukwuma. 2004. "Post-Conflict Peace Building in Africa: The Challenges of Socio-Economic Recovery and Development." Africa Region Working Paper Series No. 73, World Bank, Washington, DC.
- Organisation for Economic Co-operation and Development (OECD). 2019. *Geographical Distribution of Financial Flows to Developing Countries 2019*. Paris: OECD.
- Organisation for Economic Co-operation and Development (OECD). 2005. *Paris Declaration on Aid Effectiveness*. Paris: OECD.
- Pattanayak, Sailendra. 2016. "Expenditure Control: Key Features, Stages, and Actors." Technical Notes and Manuals, International Monetary Fund, Washington, DC.
- Pattanayak, Sailendra, and Israel Fainboim. 2011. "Treasury Single Account: An Essential Tool for Government Cash Management." Technical Notes and Manual, International Monetary Fund, Washington, DC.
- Pessoa, Mario, and Mike Williams. 2012. "Government Cash Management: Relationship between the Treasury and the Central Bank." Technical Notes and Manuals, International Monetary Fund, Washington, DC.
- Simson, Rebecca, and Bryn Welham. 2014. "Incredible Budgets: Budget Credibility in Theory and Practice." Working and Discussion Papers, Working Paper 400, Overseas Development Institute, London.
- Williams, Mike. 2010. "Government Cash Management: Its Interaction with Other Financial Policies." Technical Notes and Manuals, International Monetary Fund, Washington, DC.
- Williams, Mike, Yasemin Hurcan, Jean-Pierre Nguenang, Sailendra Pattanayak, Patrick Ryan, and Noel Gallardo. 2022. "Cash Flow Forecasting Tool for Fragile States and the Associated User Guide." International Monetary Fund, Washington DC.

