



Incredible Budgets

Budget credibility in theory and practice

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Abstract

In many countries, particularly low-income and fragile states, national budgets are often poor predictors of revenue and expenditure. This paper draws on rational choice theory to set out a framework for explaining what drives budget non-credibility. Three drivers of budget non-credibility are identified –inevitable lack of knowledge as to how the future will unfold (uncertainty); the inability of the head of the executive to fully control his subordinates (unruly agents); and the desire for the head of the executive to gain the support of external stakeholders by publishing a budget that he does not truly intend to undertake (signalling). The latter two drivers represent different variants of the ‘principal-agent’ problem. This framework is applied to a stylised budget execution chain and examples of non-credibility are illustrated with real-world cases from the budgets of Uganda, Tanzania and Liberia. The paper discusses the challenges of using the PEFA framework to consider budget credibility issues and reviews some of the common responses that aim to reduce budget non-credibility. The challenges of appropriately diagnosing budget non-credibility problems and of accessing accurate budget data for further analysis are noted.

Acknowledgements

The financial support of the Australian Department of Foreign Affairs and Trade in producing this paper is gratefully acknowledged.

We are grateful for the helpful comments provided by peer reviewers Allister Moon and Nicola Smithers, as well as the guidance and comments provided by Philipp Krause.

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1 Introduction

1.1 Approaching budget credibility

Be it a household, business or public institution, all entities use budgets – estimates of income and expenditure covering a set period of time in the future – to maximise their gains from spending. A budget compels decision-makers to consider the costs and trade-offs of various spending choices, helps to coordinate action among dispersed actors, and supports the evaluation of performance. In this way, a budget serves as a key management tool to help organisations deliver specific outcomes.

However, budgets can also serve a second purpose: that is to act as a contract between parties. Whether in a private or public setting, one party agrees to make funds available on the condition that the recipients spend the funds in accordance with an agreed budget. For nation states the idea of a budget as a ‘social contract’ lies at the heart of the democratic process (Wildavsky, 1984; Schick, 2011). The credibility of the national budget is thus important both for the efficiency of public spending and for democratic legitimacy.

However, in many countries the national budget is not a credible plan for the collection and use of public funds, and in low-income and fragile contexts this is a particular problem. This has been recognised for some time. Wildavsky and Caiden (1980) examine at length the numerous political and technical challenges that affect the ability of poor, often post-colonial, countries to manage budgets effectively. Schick has classified various types of budgeting practices in developing countries that contribute to the mismatch between plans and outturns. These include unrealistic budgeting and escapist budgeting that authorises more spending than the government can mobilise; hidden budgeting, where the real priorities are known only to a narrow clique within government; and deferred budgeting, where real spending patterns are obscured by the generation of arrears (Schick, 1998, p.36).

More recent data on the reliability of budgets in developing countries show that budgets continue to deviate considerably from plan (Addison, 2012). Detailed studies from the recent past provide numerous case examples. A review of the national budget process in Malawi characterised the budget as ‘theatre’ – lacking any credibility as a plan or contract and simply being the ritual of presenting estimates to Parliament that all actors in the process are aware will bear limited resemblance to actual spending patterns (Rakner et al., 2004). A detailed analysis of budgets and actual spending on education and health in Uganda in the 1990s caused researchers to ask the question ‘do budgets really matter?’ (Ablo and Reinikka, 1998).

In recognition of these problems, improving budget credibility has been a central goal of the public financial management (PFM) reforms pursued across developing countries over the past decade. National governments, often supported by donors, have implemented a range of reforms of their budgeting and expenditure processes that are designed to improve the likelihood that outturns will match plans in practice. Such reforms have often included cash budgeting, medium-term

expenditure frameworks (MTEFs) and binding fiscal rules. Donors have also supported efforts to measure and assess these issues more effectively, most notably through the 2005 Public Expenditure and Financial Accountability (PEFA) framework. This widely used diagnostic tool for guiding PFM reforms treats budget outturn compared to plan as one of its high-level outcome measures, and diagnoses the strength of the functions (such as controls, transfers, debt management, etc.) that are necessary to achieving such an outcome (PEFA 2011).

So why, in spite of this considerable effort to strengthen budget credibility, do many governments still struggle to execute their budgets to plan? Why do governments continue to expend time and energy on a budget process if the budget is not adhered to?

This paper addresses these questions by unpacking the concept of budget credibility and analysing its causes. This is done by suggesting some answers to the following set of basic questions: What is the purpose of budgeting? Why are budgets more or less credible? How is the lack of credibility manifested in the budget cycle and how can it be measured? What are the implications of this for strategies to improve budget credibility? Venturing some tentative answers to these questions will hopefully lead to more conceptual clarity and thus strengthen our ability to diagnose and address the ‘incredibility’ problem.

Case study examples of budget credibility problems drawn from Liberia, Tanzania and Uganda – and responses to them – are a key part of the paper. All three countries are low-income developing countries, where budget credibility problems are usually considered to be most acute. The three countries have instituted various reforms designed to improve budget credibility. They have also put considerable amounts of their budget data into the public domain, allowing for detailed analysis; and they have undergone PEFA assessments, allowing for high-level comparison on certain measures of budget credibility. While the experiences of three sub-Saharan Africa countries should not be used to make generalisations, they do provide useful examples of how problems with budget credibility and responses to them can play out in practice.

1.2 Defining budget credibility

There are many ways of approaching the question of whether a particular budget has ‘credibility’ or not. Clarity about the definition of ‘credibility’ is therefore critical, as it will significantly affect the nature of the responses designed to support it.

On the one hand, the term could refer to the *legitimacy* of the process by which a budget has been created. For example, a budget proposed by a fairly elected government that respects all relevant laws and parliamentary processes and that aims at delivering manifesto commitments could be seen as ‘credible’ in the sense that it carries with it authority and legitimacy. On the other hand, credibility could refer to the question of whether the allocations within the budget under consideration are *technically appropriate* to its stated goals. For example, a government whose stated priorities are to deliver a number of specific infrastructure projects might be accused of delivering a ‘non-credible’ budget if the spending allocations were focused instead on the health and education sectors. Related to this, a budget may be considered ‘non-credible’ if its allocations are technically appropriate to the priorities of government, but the budget is simply not deliverable because of significant over or under-estimation of total revenue and/or expenditure,

or because of implausible assumptions about economic growth and the external context. Finally, a budget may be considered non-credible even if its allocations are technically appropriate to stated government policy, and its overall revenue and expenditure forecasts fall within the boundaries of reasonable judgements, simply because it is not adhered to – meaning that in practice, outturn does not match plan. In this view, credibility is closely related to the extent of *deviation* of actual expenditure from the approved budget.

In this paper, the term ‘budget credibility’ is used to mean the *degree of deviation* between planned and actual spending over a 12-month period, rather than relating it to the concepts of legitimacy or technical appropriateness discussed above. In this context, a maximally credible budget would have no deviation from plan over the course of a year. However, even in countries with the most capable and advanced budget systems, this is rarely – if ever – the case. Even the best-designed budgets will deviate from plan to a certain degree as day-to-day amendments are made in the face of shifting realities. In many cases such deviations will yield more beneficial outcomes than if budgets are rigidly adhered to with no amendments. Indeed, many countries’ budget laws and regulations stipulate a percentage variation by which vote-level expenditure can deviate from plan without the need for further parliamentary approval. For larger variances, countries usually have formal and accepted procedures for parliamentary approval of supplementary or emergency budgets in cases where substantial in-year budget revisions are required.

The paper does not, therefore, assume that 100 percent credibility (and therefore zero percent deviation from plan) is either possible or desirable; nor does it put forward a figure for ‘acceptable deviation’ within a budget, as there is no obvious point at which legitimate adjustments of national budgets in the face of changing reality become clearly credibility-reducing. Such a figure would be very much open to judgement, and any judgement of ‘acceptable deviation’ would vary considerably by context. For example, small and under-developed economies are likely to experience more economic – and therefore budgetary – volatility than large, diversified and wealthy economies. In periods of crisis (such as a period of armed conflict) long-term planning may bring limited gains and short-term, discretionary control of resources may yield better outcomes; in such a situation Parliament or other oversight bodies may willingly cede control to the executive. Applying a uniform level of acceptable credibility is therefore inappropriate. The paper will assert, however, that the larger and more persistent the deviations between plan and execution, the more problematic and credibility-reducing they are.

Defining budget credibility in terms of the deviation of outturn budgets from original budgets also raises questions of how budgets are classified. How far – and to what level of detail – the original budget is classified and organised will have an impact on the degree to which it deviates from this into non-credibility. At one extreme, there could be an example of more technically sophisticated budgets that adhere to complex classification systems appearing *less* credible than relatively crudely classified budgets, simply because there are more defined budget lines to deviate from. Again, the paper will not offer a judgement as to the ‘correct’ level of classification that enables a credible budget to be delivered. In Section 3, which provides a quantitative analysis and discussion of real-world budgets, the governments’ own classification systems have been used as the baseline from which to determine deviation – and therefore non-credibility. Further analysis – which is beyond the scope of this paper – would be required to standardise the various national budget classification systems to the same level of complexity of classification to allow for fairer comparison.

1.3 Why is budget credibility important?

The above discussion has highlighted two important functions that a budget can play: improving the operational efficiency of government by requiring consideration of trade-offs between priorities and allowing for the better coordination of dispersed actors; and as a contract between government and its financiers (primarily taxpayers, but also donors) setting out what government will deliver in return for continued financial support. As a result, non-credibility of budgets undermines one, or both, of these functions. Budgets where outturns deviate considerably from plan will be poor guides for managing the action of actors across the public and private sector, resulting in the less effective delivery of public services and other desired outcomes. A non-credible budget also undermines the implicit contract that underpins social acceptance of taxation and spending, while also reducing the value to non-government stakeholders of engaging in the process at all. It might also contribute to a general weakening of the power of formal institutions (in this case the approved budget) to shape the behaviour of individuals (in this case, government officials) and, depending on the extent and motivations for non-credibility, may have a negative impact on overall respect for the rule of law and adherence to administrative procedures.

The non-credibility of different parts of the budget may have different kinds of impacts. For example, non-credibility of the budget in terms of overall revenue and expenditure will have an impact on a country's fiscal balance, with associated macroeconomic implications. Non-credibility of allocations to high-level votes within the budget may not have macroeconomic implications if overall expenditure levels are adhered to, but it might undermine legitimacy and trust in government if it appears that the government is disregarding the allocative decisions presented by itself and approved by Parliament. Significant deviation from plan at lower levels – below that of the overall vote yet within the total expenditure envelope – will not necessarily affect macroeconomic stability but it could make effective management of public services impossible given that service managers will have no reliable guide to their likely budgets.

For these reasons, credible budgets are considered valuable and a contributing factor to other developmental objectives. Section 2 reviews why budgets might lack credibility, setting out a framework that identifies three overall key drivers. Section 3 discusses how budget credibility may play out in practice, referring to the PEFA framework's approach to measuring credibility, and how the real-world experiences of Liberia, Uganda and Tanzania relate to some of the implications of the framework presented in Section 2. Section 4 discusses some of the responses that governments, often supported by donors, have taken to try and improve budget credibility. Section 5 concludes the discussion and sets out some areas for further research.

2 Why budgets may lack credibility

2.1 Three drivers of non-credibility

A better understanding of the causes of weak budget credibility requires a framework that sets out the reasons for budgeting in the first place, and a discussion of the conditions that subsequently drive deviations between planned and actual spending. This paper proposes such a framework, building on a rational choice approach.

Such a framework begins with some assumptions. In terms of the approach, we assume that all actors in the budget process are rational and seek to maximise their utility from the opportunities that the budget process offers. Second, we assume that there exists a ruler of some sort (hereafter, a 'President') at the apex of the budget process. This may be an actual president, a monarch, a cabinet, or a clique of the ruling party. In reality, even actors at the apex of the budget process may be split among themselves, with different factions, cliques and power centres competing and cooperating at different times and for different reasons during the budget process. For the sake of simplicity, this discussion will assume that a unitary actor has final authority over the budget process, even if in many real-world situations such authority may not rest with a single person. We also assume that the primary utility maximising strategy of the President is the perpetuation of his rule. As in the real world, his rule is not assured or automatic and he must to a greater or lesser degree respond to the preferences of stakeholders with an interest in the budget to ensure their continued support for his rule.

Given the circumstances above, what does the President gain from developing a budget? Why does he (or she) not instead authorise all spending on an *ad hoc* basis based on his personal judgement as to what will best support his immediate objectives? What are the benefits to making planned revenue and spending public knowledge, as opposed to keeping such information confidential?

A budget enhances the President's ability to govern in two ways. First, the budget acts as a management tool that allows the President to coordinate action across a large organisation to maximise the impact of public spending. A first condition for adopting a formal budget process therefore is that the efficiency gains from using a budget as a management tool outweigh the time and cost required to construct and manage the budget. Second, the budget can be seen as a public contract, which makes promises to certain constituencies regarding taxation and spending proposals in exchange for their political support. This leads to a second condition for adopting a budget: the gains of publicly setting out revenue and expenditure in the interest of stakeholder support must outweigh the loss of flexibility and discretion that results from committing to a pre-specified budget contract.

An intrinsic problem to budgeting therefore (to which we will return in section 4), is that it violates the Tinbergen rule, which states that governments must have as

many instruments as policy objectives. The government budget – a single instrument – serves two distinct objectives: to improve internal governmental efficiency and to bestow external legitimacy on the government. If these objectives diverge, the budget may no longer meet the conditions for adoption set out above. While mature democracies have a high degree of alignment between the aggregate interests of the electorate and the rulers, and therefore face no major contradiction between the two objectives of the budget, states with weaker governance face greater divergence between these aims. In extreme cases the budget may lose all relevance as a management tool and become merely a means of maintaining the appearance of a rules-based system for allocating funds in the hope of bestowing some external legitimacy on the ruler.

With these two objectives for budgeting in mind, the underlying drivers of lack of budget credibility can be grouped into three categories: *uncertainty*, *unruly agents*, and *signalling to stakeholders*, as elaborated below.

Table 1: The budget credibility framework summarised

Purpose of budget	Causes of weak credibility	Description
Management tool: expenditure efficiency	Uncertainty	Inaccurate forecasts of a changing world require in-year changes
	Unruly agents	Lack of compliance by agents executing the budget
Contracting tool: stakeholder cooperation	Signalling problem	Intentional misrepresentations in the budget plan to placate stakeholders

2.1.1 Uncertainty

In the absence of perfect information, all budgets are merely estimates of revenue collection and spending needs in a given period, and are by their nature an incomplete forecast of the future. Uncertainty can be an internal factor to the budget process. For example, the President must weigh the effort involved in developing increasingly sophisticated budgets against the gains made from this improved accuracy. For example, governments may use a past year's average unit costs for school construction to forecast the following year's cost, as the effort to cost each and every school construction project outweighs the gain of marginally better cost estimates. Budgeting builds on educated guesses about, for instance, how long it will take to order and receive medicines for government health facilities and what it will cost to transport those medicines to the appropriate facilities. All these assumptions are subject to some uncertainty.

Uncertainty can also be external to the planning process. On the revenue side, for instance, exogenous shocks – which may be a particular problem in poorer states – such as an unanticipated fall or rise in a country's export prices, will affect the total tax take and may in turn result in a reduction or expansion of overall government spending. Alternatively, unanticipated events may change spending priorities, for instance an economic crisis that increases the need for unemployment benefits, a natural disaster requiring disaster relief, or a political crisis that requires payoffs to a dissatisfied constituency.

Within this category of ‘uncertainty’ is also the issue of state capacity¹. Uncertainty can be conceptualised as a lack of capacity to accurately predict the future and to correctly deliver expected outputs through government systems. A state and public sector with low capacity is less likely to accurately predict what will happen during a budget period, and less likely to effectively react to changes in external circumstances. For example, poor macroeconomic forecasting might lead to inaccurate estimates of revenue, which will then challenge the credibility of the overall budget; and/or weak cash management within government systems means the President can never be certain about whether his planned expenditures will actually take place as set out in the budget, simply because the state machinery is not capable of guaranteeing it. So a state with low capacity will be more likely to deliver a non-credible budget, all else being equal. In this discussion, capability is therefore seen as part of the uncertainty problem: uncertainty and capability trade off against each other, where a less capable government is subject to greater uncertainty.

2.1.2 Unruly agents (principal-agent problems)

Self-interested agents of the government (institutions, civil servants, contractors) may not always be motivated to deliver the President’s priorities. As a result, agents may take advantage of the President’s inability to perfectly monitor their performance in order to use public funds in the pursuit of their own interests (Laffont and Martimort, 2009). This is separate from the issue of uncertainty, discussed above. Principal and agent tensions may exist at various levels. At an institutional level, for example, it may be in the interest of the Ministry of Education to overstate the number of students enrolled in order to secure a larger budget allocation, knowing that it has an information advantage compared to other institutions. However, individuals may also make use of information asymmetries for personal reasons. Consider a government official who overstates the cost of stationery and pockets the difference, knowing that it is very difficult for the ministry to verify the actual cost. Alternatively, a well-intentioned manager of a government clinic may divert money intended for maintenance to fund the more pressing need of fuelling the local ambulance. While a President can minimise principal-agent problems, either by building a sense of collective mission or by investing in systems that increase his information about civil servant performance and using powers of rewards and sanctions to incentivise ‘good’ behaviour, he can never fully escape the need to delegate responsibilities to other people with motivations and interests of their own.

2.1.3 Signalling problems (placating stakeholders)

As discussed above, the President needs the cooperation of various stakeholders to finance and deliver his budget. These stakeholders will try to further their own interests in the budget process by extracting taxation or spending promises in return for such cooperation. In essence, this is a reversed principal-agent problem: the President (the agent in this situation) must contend with a wide set of demands from other actors in the budget process such as taxpayers, powerful economic interests, influential political groups and in some cases international donors who can effectively sanction the agent (withdraw support for the budget) unless their objectives are met.

As in the above principal-agent issue, there is an information asymmetry that allows the President to be an ‘unruly agent’ himself. Many of these stakeholders can more easily scrutinise the proposed budget plan than the government’s

¹ There is no single definition of ‘capacity’, despite its widespread use in PFM discussions. For the purposes of this discussion it will borrow from a UN Economic and Social Council definition: the ability to ‘perform functions, solve problems and set and achieve objectives.’ (UN Economic and Social Council, 2005)

implementation of it. The President therefore has an incentive to make public promises in the budget that he subsequently does not honour in practice in order to maintain stakeholder support. Imagine a President who inflates his revenue forecast to justify additional spending on healthcare, while knowing that this is not likely to be delivered in practice; or a President who publicly agrees to cut defence spending at the insistence of the international donor community, but then systematically charges military spending to other budget codes to effectively reverse the cuts.

Signalling problems tend to be particularly pronounced in aid-dependent countries. International organisations can have considerable influence over budget plans, as in the case study examples of Liberia, Tanzania and Uganda discussed below, yet different preferences to the President (World Bank, 1998, p. 5). The information asymmetry between President and donors is likely to be severe as external donor officials are not beneficiaries of the services the government provide, are unlikely to have perfect knowledge of how government systems in the recipient country really function, and are often monitoring performance from afar. This incentivises the President to use the budget as a signalling device that assures international donors that basic bureaucratic systems are in place, while in practice subverting budget procedures (Andrews et al., 2012). A further complicating factor could be that donors themselves may not always act as one coherent voice and the President may face conflicting demands from this constituency. For example, some donors may be concerned with macroeconomic stability and expect this to be a priority in the budget, whereas others may be more interested in whether the government meets spending targets in favoured sectors.

If this situation remained static we would assume that stakeholders would, over time, recognise the President's failure to comply with budget promises and withdraw their support from the process. However, the powers of different interest groups are rarely static. In some cases stakeholders will fight and win budget concessions and in other cases they will be outmanoeuvred. Presidents change, new interest groups emerge and evolving internal and external conditions may 'reset' the calculus that both sides use to determine whether it is worth the effort to try and influence expenditure on the one hand, or to try and signal compliance to stakeholders on the other. As a result, despite the lessons of experience, signalling problems may persist year after year.

2.2 Conclusion

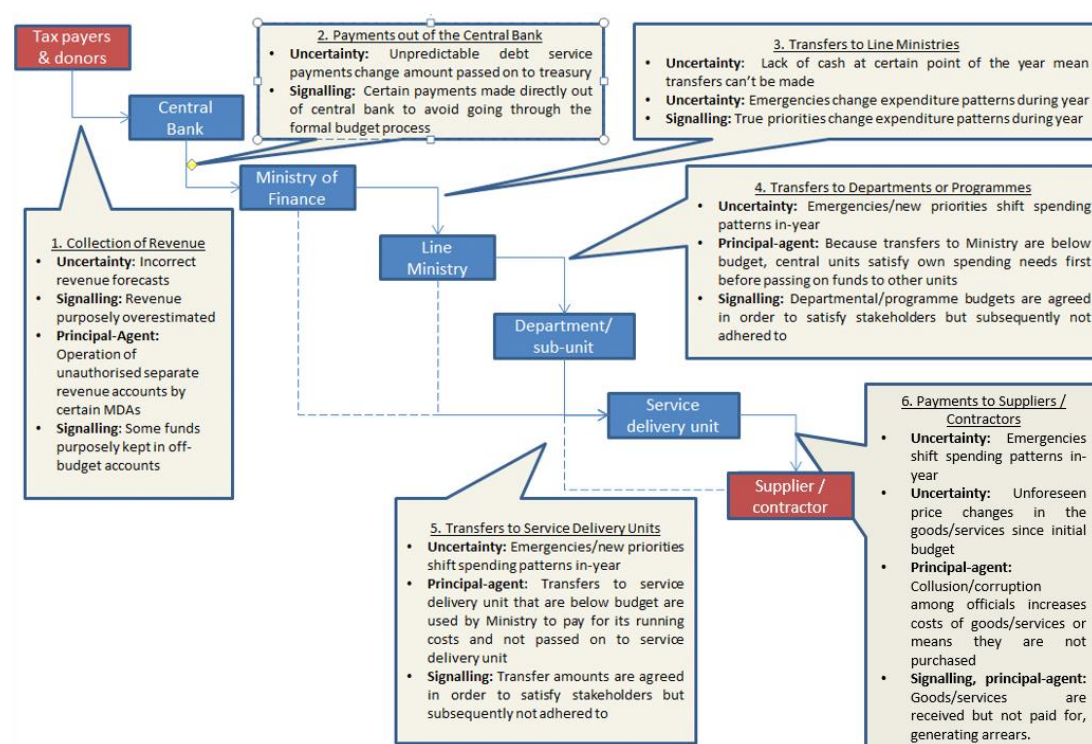
These three categories of problems provide a useful way of grouping the different pressures that lead to unrealistic budgeting and give clues about why such problems persist. Poor budget credibility is difficult to tackle because of the challenge of untangling the effects of these three drivers at any given time. For example: Were the cost overruns on a construction project merely human error (uncertainty), an effort by road engineers to dupe the central government into a larger contract than they would otherwise have accepted (unruly agents), or an attempt by the government to gain parliamentary support for a high profile project by understating its cost (signalling)? Is endemic public sector corruption that appears to go unpunished a principal-agent problem (unruly agents), or is it tacitly 'allowed' by the President as a means of augmenting civil service pay against the wishes of the donor community (a signalling issue)? These questions are often difficult to answer. In order to show how this framework might be useful in approaching some of these issues, the following section reviews how expenditure decisions often play out in practice, and where incidences of non-credibility might be focused.

3 Budget credibility in practice

3.1 How credibility problems are manifested in the budget execution process

Figure 1 shows how the three drivers of weak credibility might cause spending to diverge from plan in the course of budget execution. For illustrative purposes we consider a stylised execution chain in a unitary state. If the model were to be adapted for a federal state, this sequence would need to be repeated at the sub-national level.

Figure 1: How credibility problems lead to expenditure drift



Source: Authors' own.

3.1.1 Critical stages in the sequence

The first point of possible divergence between plan and execution is in the **collection of revenue**. Collected revenues may diverge from that specified in the budget because of poor revenue predictions, unanticipated economic volatility or weak tax administration capacity (all examples of uncertainty within this framework); or because the government actively chooses to over- or understate its

revenue estimates in order to intentionally mislead in the budget approval process (an example of signalling). Funds may in fact never enter the consolidated account because agencies (or civil servants) retain them in separate accounts for agency or personal gain (unruly agents). The President himself may choose to keep funds off-budget in order to use them for purposes other than those presented in the official budget (again, an example of signalling challenges).

Once funds are consolidated at the **Central Bank**, the **Ministry of Finance** decision-makers can choose to pay bills directly from the consolidated account rather than processing the funds through the formal budget process. It is accepted practice to make external debt payments this way (thus unpredictable and/or unpredicted debt payments can increase the volatility of funding for other spending purposes), but the Ministry of Finance may also choose to process other payments directly from the Central Bank, where they are less subject to scrutiny.

Once funds reach the treasury it is usually the Ministry of Finance's job to distribute them among **spending agencies**. Funds transferred to spending agencies at this stage (usually with instructions on how they should be split between salaries, operating costs and capital projects) may diverge from those set out in the budget for a number of reasons. Where available funds are below expectation – as a result of a revenue shortfall and/or off-budget expenditures – cash rationing may be instituted by the Ministry of Finance. The Ministry may also make an active decision to divert funds from one purpose to another, whether because of a genuine change in priorities (such as an unexpected emergency), or because the plan never really reflected actual government priorities.

This pattern repeats itself as funds cascade down the execution chain. Volatility and deviation will tend to increase as funds move further down the chain, as non-credibility at one level cascades downwards, meaning that the starting point for the budget of the next level down is already affected by the non-credibility above it, and so on. Furthermore, if a **line ministry**, acting in its own rational interest, does not receive its full budget allocation from the Ministry of Finance, it may choose to allocate its insufficient funds to meet central operating costs first in full before transferring funds further to **departments and service delivery units**. This will further exacerbate the shortfalls of lower-level units of government.

At the point of purchase of **goods or services**, plans may diverge from practice for a number of reasons. Price estimates may have been incorrect – whether due to genuine price uncertainty or because of signalling pressures (for example, pretending that the funds will deliver more services than they actually can). Funds may purchase different goods from those set out in the budget because priorities change, or because the stated budget priorities diverge from what the spending agency (agent) or the central government (principal) actually wants to use the funds for. In addition, spending units may subvert the budget process by buying goods even where funds are not available (generating arrears). Arrears generation effectively subverts the power of the principal; agents force the principal (the Ministry of Finance) to pay – eventually – according to the agents' priorities, as the Ministry of Finance has an incentive to maintain the government's reputation for honouring expenditure obligations.

This sequence illustrates two important points. First, at each stage in the execution chain a combination of factors – uncertainty, unruly agents and signalling pressures – can distort planned spending patterns and reduce budget credibility. Second, shortfalls in the budget at higher levels will usually amplify the shortfall for units further down the execution chain, both as a result of non-credibility cascading

through the systems, and as agents at each stage will try to meet their own budgets in full before cascading reduced funds on to lower level units.

3.2 Measuring non-credibility in the budget execution process

There is no single or definitive set of budget credibility measures and the same budget can look comparably credible by one set of classifications, yet lack much credibility on another. For example, a budget can be credible in aggregate revenue and expenditure terms, but at the vote level and below it can deviate significantly from plan; or a budget may be very accurate in forecasting and paying wages and salaries across all votes, but be far less credible regarding recurrent and capital expenditure. The choice of measure therefore will depend on the question to be answered, and any meaningful assessment of budget credibility must qualify the level and framework through which credibility is being assessed. Different stakeholders will also care about different types of credibility. For example, some will focus on credibility as overall fiscal balance, while others may be more interested in adherence to planned sectoral allocations as a measure of credibility. The following sections will look at credibility measures that correspond to the steps in the execution chain laid out in Figure 1.

3.2.1 Budget credibility and the PEFA framework

The most well-established international measures of budget credibility are the PFM performance measurement framework indicators issued by the PEFA secretariat (PEFA 2011). The PEFA framework tackles the different dimensions of budget credibility through the separate measures of budget credibility, as set out in Box 1. It considers aggregate credibility, which is important for macroeconomic stability, by measuring how close the government got to its estimated overall expenditure envelope (PI-1) and how well it performed against its revenue predictions (PI-3). In an attempt to measure whether the government is abiding by the policy promises expressed in the budget, it measures the credibility of the composition of expenditure and the size of the contingency budget (PI-2) and the degree to which cash-flow commitments are made (PI-16). Finally, the framework considers whether or not recorded expenditures are an accurate reflection of actual spending commitments by quantifying the total stock of payment arrears and whether the arrears are recorded well enough to know the outstanding stock (PI-4).

Box 1: PEFA PFM Performance Measurement Framework, Indicators 1-4 and 16

PFM Outturns: Credibility of the budget – dimensions

PI-1. Aggregate expenditure outturn compared to original approved budget

- The difference between actual primary expenditure and the originally budgeted primary expenditure (i.e. excluding debt service charges, but also excluding externally financed project expenditure).

PI-2 Composition of expenditure outturn compared to original approved budget

- Extent of the variance in expenditure composition during the last three years, excluding contingency items.
- The average amount of expenditure actually charged to the contingency vote over the last three years.

PI-3 Aggregate revenue outturn compared to original approved budget

- Actual domestic revenue compared to domestic revenue in the

originally approved budget.

PI-4. Stock and monitoring of expenditure payment arrears

- Stock of expenditure payment arrears (as a percentage of actual total expenditure for the corresponding fiscal year) and any recent change in the stock.
- Availability of data for monitoring the stock of expenditure payment arrears.

PI-16 Predictability in the availability of funds for commitment of expenditures

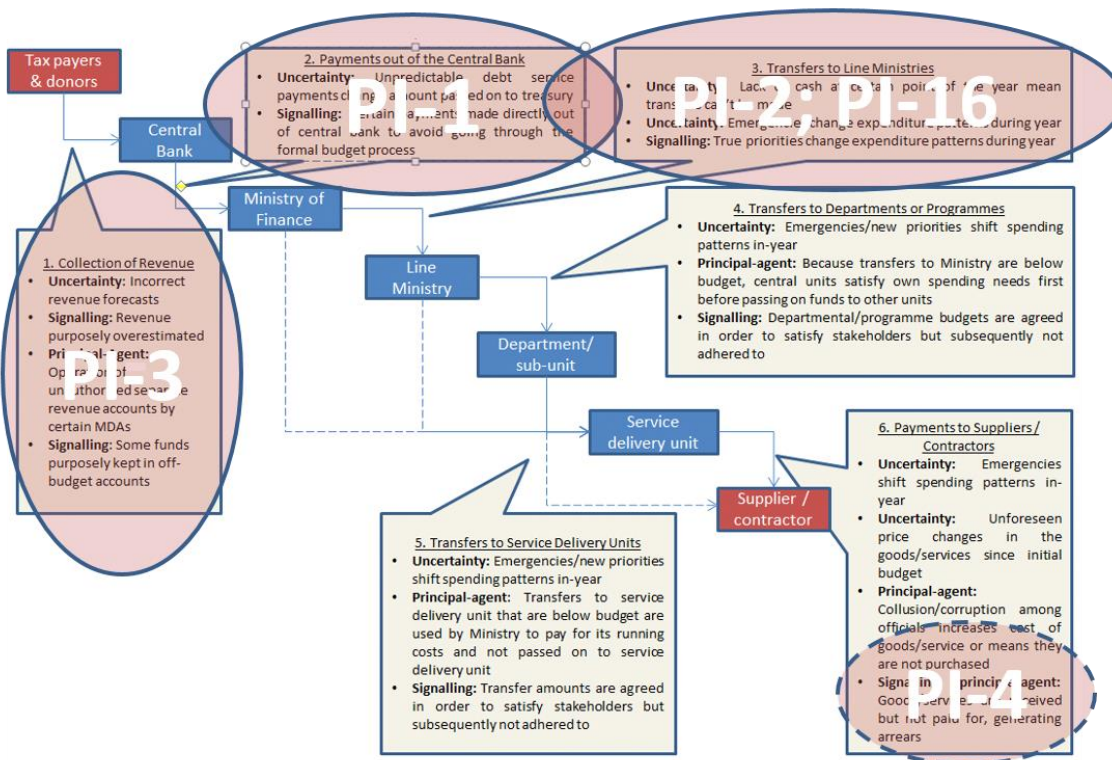
- Extent to which cash flows are forecast and monitored.
- Reliability and horizon of periodic in-year information to Ministries, Departments and Agencies (MDAs) on ceilings for expenditure commitment.
- Frequency and transparency of adjustment to budget allocations, which are decided above the level of management of MDAs.

Source: PEFA Framework (2011)

The PEFA framework is very widely used, with over 350 PEFA studies completed to date. The conclusions of PEFA studies often provide important source material for donors' consideration of fiduciary risk. As a result, the findings of PEFA assessments can have a direct impact on the likelihood that donors will use government systems or not to deliver their aid spending (DFID 2011).

However, reviewing PEFA against the steps of the budget execution process set out above suggests that there are limitations to the PEFA approach to measuring budget credibility. The available metrics in the PEFA framework are high-level measures of credibility with a greater emphasis on macro-fiscal budgetary performance than the credibility of the government's lower-level policy intent or the actual implementation of budgeted expenditure at the sub-vote level. Mapping the PEFA measures onto the stylised budget diagram demonstrates this (Figure 2).

Figure 2: PEFA indicators and the budget execution cycle



Source: Authors' own.

It is clear that PI-1 and PI-3 are specifically concerned with aggregate budget credibility on the expenditure and revenue side. PI-2 provides some measure as to whether public funds were spent on the lower-level categories specified in the budget. However, this is only at total aggregated spending at the budget head (or 'vote') level, and only for usually the 20 largest budget heads. PI-16 provides information on the predictability of the availability of funds for committing expenditures through cash-flow planning, although it does not measure the *actual* availability of funds based on the planning undertaken. PI-4 provides some information on the accuracy of lower-level spending by determining whether the aggregate controls are being subverted by monitoring the build-up of arrears. However, generating arrears is only one of the possible four options open to budget holders in the event of a shortfall in their expected budget. A shortfall in funding might lead to reducing or stopping the activity, sourcing finance from another source, or implementing efficiency gains to cover the loss in funding. PI-4 therefore provides only a partial overview of the credibility of the budget at a very detailed level. Indeed, the key purpose of PI-4 is less to measure the credibility of low-level budgeted spend but rather to assure that arrears are not being used as a non-transparent method of overall budget financing (PEFA 2011 p. 16).

PEFA assessments thus provide a useful high-level overview of budget credibility. However, a very broad area of budget credibility that PEFA does not consider is the 'hidden middle' of budget execution that occurs below the budget head level right down to the transaction level. Given the importance of mid-level agencies for delivering many part of a government's policy objectives, this leaves a large part of government budget execution effectively 'off screen' to PEFA assessments.

3.3 Country examples of budget credibility and credibility measures at different stages in the execution cycle

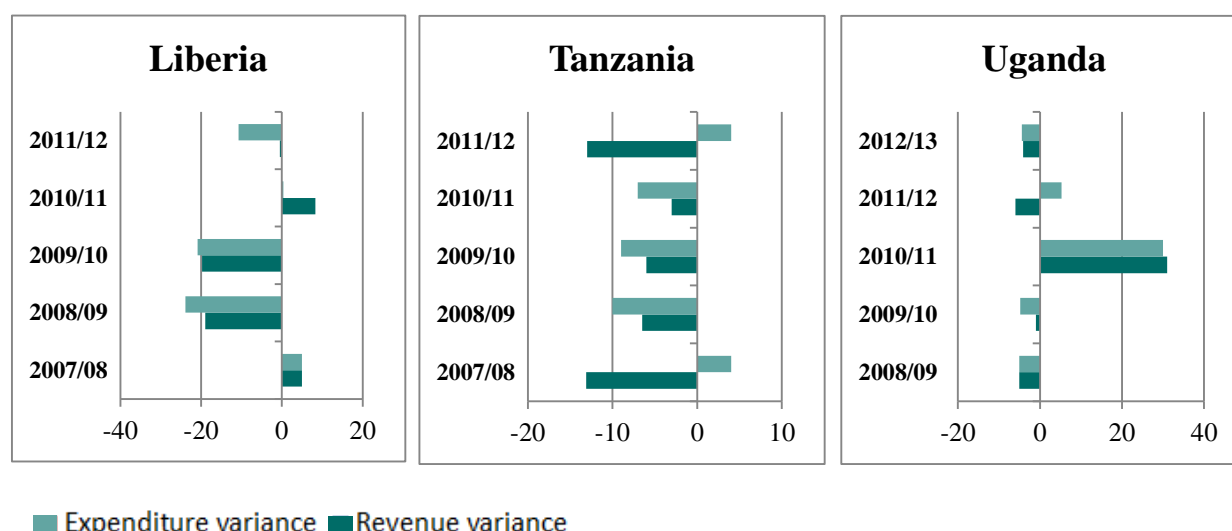
Using the stages in the budget execution cycle set out in Figure 1, the following section uses budget data from Liberia, Tanzania and Uganda to highlight examples of where budget credibility problems emerge and what we can deduce about the drivers of expenditure drift. While this is not a comprehensive analysis of budget credibility, each country case study provides some concrete examples of the kind of quantitative measures that can be used to diagnose credibility problems to illustrate the arguments here. The discussion restricts itself to the central government expenditure chain, but a similar exercise could be applied at sub-national level.

3.3.1 Budget credibility at the six key stages of the budget execution cycle

Stage 1: Revenue collection does not match revenue projections

Poor revenue predictions are a major problem, and appear to drive a considerable share of expenditure drift. Over the past five years, average absolute variance in revenue (budgeted versus actual) for Liberia, Tanzania and Uganda was 8%. In some years the deviations were significantly higher than the average, with shortfalls of over 20% in Liberia in 2008/09 and 2009/10, and over 10% in Tanzania in 2007/08 and 2011/12. The figures below show how revenue and expenditure variances compare: in many (although not all) of the examples presented below the two move together (as would be expected in countries running cash budgets). This suggests that even before decisions are made on how to allocate available funding, poor aggregate revenue prediction will lead to poor aggregate expenditure credibility.

Figure 3: Credibility of revenue and expenditure estimates



Sources: Liberia: Government of Liberia, Draft national budget 2013/14; National budget 2012/13; Draft national budget 2009/10; Fiscal outturn report 2010/11 & 2011/12; Tanzania: Republic of Tanzania, Full year budget performance and economic review, 2007/08 – 2011/12; Uganda: The Republic of Uganda, Annual Budget Performance Reports 2008/09 – 2011/12, PEFA, 2012.

This data cannot tell us, however, whether revenue shortfalls reflect uncertainty (difficulty in predicting revenue), or whether this is a signalling problem (pressures from stakeholders to expand spending programmes' results in deliberately over-optimistic revenue estimates to match). Certainly, many low-capacity countries will struggle to accurately predict revenue levels, because of general economic

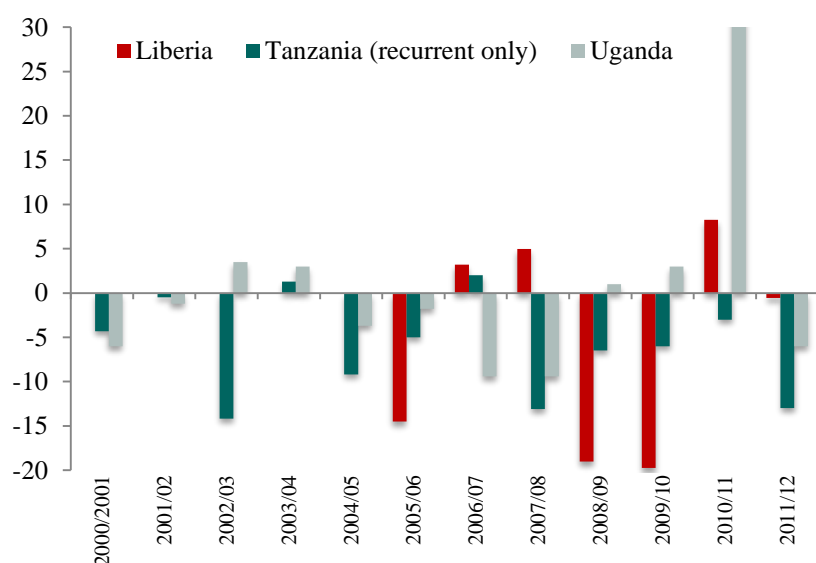
volatility. In Liberia for instance, revenue grew at an average annual rate of roughly 35% (in nominal terms) in the post-war period from an extremely low base of less than US\$100 million, and in 2008/09 delays in payments related to two new mineral agreements accounted for a large share of the revenue shortfall (IMF, 2012). On the signalling side, over-optimistic revenue projections in a country running a cash budget allow a government to promise spending programmes which it can ‘legitimately’ cut during execution and then claim that revenue has proved to be insufficient.

The answer to what the revenue shortfalls reflect most likely involves both uncertainty and signalling. However, the high frequency of revenue shortfalls across the sample suggests a certain positive forecasting bias on the part of the finance ministries.

Stage 2: Total aggregate releases from the Central Bank are not in line with planned expenditure

Mirroring the poor predictability of revenue, aggregate expenditure – total funds transferred from the Central Bank on the instruction of the Ministry of Finance – has deviated from the budget considerably in all three countries. For the reasons noted above, this is perhaps obvious – for countries running cash budgets, shortfalls in revenue will naturally lead to shortfalls in expenditure.

Figure 4: Variance between budget and actual, % of total budgeted expenditure



Sources: Liberia: Government of Liberia, Draft national budget 2013/14; National budget 2012/13; Draft national budget 2009/10; Fiscal outturn report 2010/11 and 2011/12; Tanzania: Republic of Tanzania, Full year budget performance and economic review, 2001/02 – 2011/12; Uganda: The Republic of Uganda, Annual Budget Performance Reports 2001/02, 2007/08 – 2011/12, World Bank, Public Expenditure Review, 2003, Byaruhanga et. al, 2010.

Comparing planned and actual total expenditure (for those years in which data could be located) Figure 4 shows that in 60% of all cases, total expenditure deviated by 5% or more from the planned total on average, and there has been no notable improvement in credibility over the past 10 years for this stage of the process. In the majority of cases expenditure fell short of the plan, as would be expected when revenue falls short of the target. There were a few notable exceptions, for instance in Uganda the purchase of unbudgeted fighter jets by the Ugandan government in 2010/11 led it to exceed its budget by 31%. However, on

the whole budgets underspent compared to plan (Uganda Ministry of Finance, 2011).

Stage 3: Transfers to line ministries are not consistent with the published budget

In Liberia, Tanzania and Uganda, line ministries often receive a considerably different allocation from what is stated in the original budget. As the above discussion has shown, over-optimistic revenue forecasts will tend to result in lower expenditure as less money than expected is raised. However, the case study examples suggest that poor credibility at agency level is not solely driven by aggregate revenue shortfalls. Even if the expected budget shares of spending agencies are adjusted according to the percentage by which the overall aggregate budget fell short or exceeded its target and then compare that to outturns, there are still considerable variations.

Table 2 provides a snapshot of the credibility of expenditure composition, using PEFA measure PI-2 for all three countries. This indicator measures the sum total of budget deviations at vote level (above or below planned expenditure) for the largest votes, as a share of actual expenditure and adjusted for the aggregate variation in expenditure.² A score of 10% means that – adjusted for the total shortfall/overspend – the sum total of over- and underspending came to 10% of the original budget.

Table 2: PI-2 Scores (2011 methodology)

	2004/05	2005/06	2006/07	2007/08	2008/09	2009/10	2010/11	2011/12
Liberia		32%	22%		23%	19%	16%	8%
Tanzania			18%	22%	27%			
Uganda	7%	13%	12%	14%	8%	13%	41%	

Sources: Liberia: PEFA studies 2009 and 2012 + budgets for 2011/12 and 2013/14; Tanzania: PEFA study 2010; Uganda: PEFA studies 2005, 2009 and 2012. (For studies pre-2011, data recalculated using 2011 methodology).

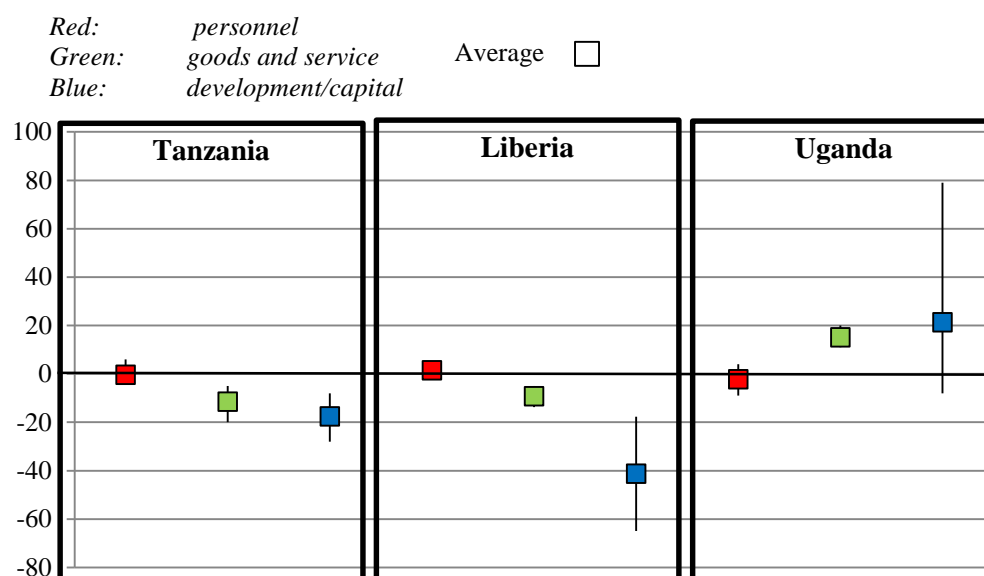
On the whole, vote-level credibility has been poor in all three countries in the past decade, with adjusted deviations above 10% in four out of five of all the years for which there is data, and an average deviation of 18%. Only in Liberia does it appear that scores have improved over time.

Stage 3a: Transfers to line ministries by type of expenditure

Budget data from the three countries are also available by sub-categories of types of expenditure (i.e. wages, recurrent and capital expenditure). While this disaggregation in expenditure type has not been explicitly discussed in the model outlined in Figure 1, the results of this analysis suggest some clear findings.

² The budget for each vote is adjusted by the percentage of total budget over- or underspend. The absolute variance between actual expenditure and adjusted planned expenditure is calculated, and the sum of these deviations are expressed as a share of total expenditure.

Figure 5: Budget credibility by economic classification, select years



Sources: Liberia: Government of Liberia, Draft national budget 2013/14; National budget 2012/13; Draft national budget 2009/10; Tanzania: Republic of Tanzania, Full year budget performance and economic review, 2007/08 – 2011/12; Uganda: The Republic of Uganda, Annual Budget Performance Reports 2008/09 – 2010/11.

In all three countries, personnel expenditure (wages) is the category with the most credible expenditure, and, on average, tends to be no more than 5% above or below its budget across the government – a relatively accurate budgeting outcome given variances elsewhere. Goods and services (often called ‘recurrent’) expenditure is less credible, with a variation between -20% to +20%, while the capital or development category is the least credible by far, fluctuating hugely with a variance of between -60% and 80%³.

Features of these different types of expenditure can help to explain this variation, particularly between wages and capital expenditure. In low-income countries, the public sector workforce is not usually fully decentralised to lower-level agencies, and central government (including the Ministry of Finance) has some control over who is added to, or removed from, the payroll. Furthermore, public sector pay levels tend to be set centrally and are therefore easier to work into the annual budget estimates. Taking these powers together a Ministry of Finance can – with relatively high accuracy – predict what the total wage cost will be. Wages are also a sensitive political issue, and failure to pay wages to public sector staff is immediately noticed by a group of stakeholders (civil servants) with some power to influence the President’s political standing.

By contrast, capital expenditure management is often decentralised to individual ministries, which may propose and/or commit to projects that are not fully reflected in the budget without explicit authorisation from the Ministry of Finance. Capital expenditure is inherently ‘lumpy’ with costs that are harder to accurately forecast and predict, and the public procurement processes involved in such activities are often long, complicated and subject to significant uncertainty. Large capital projects may also be more vulnerable to principal-agent problems. For example, a study on OECD countries found public procurement to be most vulnerable to waste

³ The overspending in Uganda is largely accounted for by an unplanned military purchase in 2010/11 – in most other years the development budget was underspent.

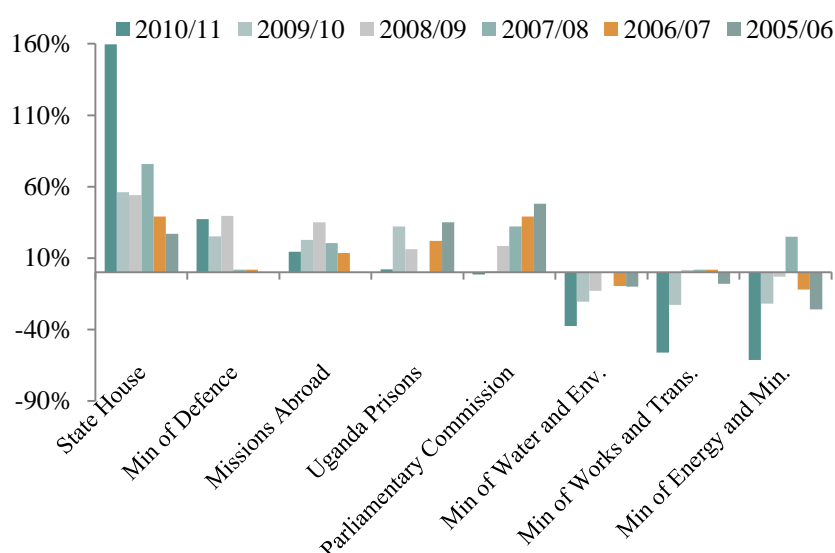
and corruption among common government activities (OECD, 2013). Donors often provide funding for capital projects, and poor coordination between donors and government may lead to delays and reduced expenditure. These inherent features in these types of expenditures can go some way to explaining their varying levels of credibility within the three countries studied.

Stage 3b – Variation in transfers to specific agencies

The above analysis has shown that even when there is a general revenue shortfall requiring cuts in expenditure, not all agencies receive the same level of reduction. Among the three case studies, some data suggest that certain agencies are persistent winners of in-year reallocations, while others regularly lose. In Uganda, for instance, State House, the Ministry of Defence, Missions Abroad and the Parliamentary Commission have repeatedly benefited from supplemental budgets in the past six years, while others, such as the Ministry of Water and Environment, the Ministry of Works and Transport, and the Ministry of Energy and Minerals, recurrently underspend.

The enduring nature of this spending prioritisation suggests that signalling problems are at play. Perhaps fearing condemnation by civil society groups or international donors of a budget that prioritises central administrative functions (State House, Missions Abroad, Parliamentary Commission) or security (Defence, Prisons), the government may deliberately under-estimate expenditure for these items to secure external support. It will do this in the knowledge that once the budget moves to execution and it is harder for stakeholders to verify what is happening, expenditure will increase above budget in these areas.

Figure 6: Variation of the non-wage recurrent budget for select votes in Uganda (deviation as % of approved budget)



Source: Ministry of Finance, Planning and Economic Development Budget Performance Reports for 2005/06 – 2010/11 (MTEF summary tables).

Stage 4: Distribution of funds among programmes within a line ministry or local government

Once funds reach the line ministry or local government, the framework suggests that deviations from the budget can increase further as funds cascade down to directorates or departments. Unfortunately, most countries in Africa do not publish consistent budget data that are detailed enough to allow us to compare the budget

versus actuals at the directorate or department level (de Renzio and Simson, 2013). Uganda and Liberia, however, do publish disaggregated outturn data. In the analysis below we will restrict ourselves to discussing education expenditure in Liberia, a country with relatively weak public financial management systems and thus unusually high deviations at the programme level. A similar type of analysis could be carried out for different countries and sectors.

Table 3: Liberia Ministry of Education, budget performance, 2011/12

Ministry of Education 2011/12			
ECONOMIC	% budget spent (1)	% budget spent, adjusted for total Ministry of Education variance (2)	Deviation as share of Ministry of Education expenditure (3)
Compensation of employees	124%	115%	16%
Use of goods and services	57%	53%	6%
Capital	59%	55%	1%
Grants	79%	73%	2%
Total	108%		
PROGRAMMATIC			
Secondary education	27%	25%	20%
Regional/county educational management	93%	86%	0%
Educational standards	3654%	3380%	9%
Pre-primary and basic education	101%	93%	0%
Subsidies and scholarships	0%	0%	10%
Vocational training	94%	87%	0%
Administration and management	330%	305%	32%
Teacher training and accreditation	0%	0%	3%
Curriculum development and research	0%	0%	0%

Source: Liberia 2012/13 and 2013/14 budgets.

Table 3 shows Liberia's Ministry of Education outturns, which suggest that deviations between plan and budget increased considerably at the sub-vote level. While the overall Ministry of Education budget exceeded plan by 8% in 2011/12, variation by type of expenditure level is considerable. For example, employee costs

overshot the budget by 24%, while goods and services were underspent by 43% (column 1). To control for the effects of the overall variation to the education budget, we can adjust the expected budget in each category to the total shortfall or over-performance at agency level; this gives a measure of how the Ministry chose to allocate funding given a change in the overall education budget ceiling (column 2). This adjustment shows a lower overspend on employee costs (15%), but an even greater underspending on the budgets for good and services (47%) and capital (45%).

Variation is even greater when looking at policy area outturns, where administrative areas significantly overspent their budgets while the programmatic areas by and large underspent. However, where they are of a vastly different magnitude, comparing budget performance across lines can be misleading: one would expect variability to be higher on small lines. Again, a new measure is introduced that measures the absolute variance by spending category as a percentage of total expenditure (column 3). This indicates that poor credibility is not solely restricted to small budget lines – the shortfall in spending on secondary education for instance, represents 20% of the total Ministry of Education budget. The largest source of variation to the plan is the overspend on the administration and management policy area, which consumes 32% of the budget.

There are several plausible explanations for these considerable deviations. One is that principal-agent problems are influencing credibility at agency level. As discussed above, agents at the top of the hierarchy are likely to satisfy their own programme's needs before passing funds onto lower level units, which would amplify the in-year cuts for those lower down the food chain. The data for Liberia tentatively support this argument, as they show that administration and management – the department most likely to allocate funds internally – is receiving considerably more than budgeted. Alternatively, there could be a signalling issue, whereby the President deliberately understates administration costs in the formal budget, knowing they are unpopular with certain external constituencies, but expecting that in practice they will be significantly overspent during execution. Finally, weak capacity to forecast spending needs (uncertainty) may have affected performance.

Stage 5: Transfers to service delivery units

The channel through which funds for service delivery units (SDUs) flow will differ from country to country. In many countries, the funds may flow via a sector ministry, a local government finance authority and/or a local government sector authority. The framework and discussion above suggests that the longer the chain, the higher the likelihood of leakages.

Available budget data on transfers to SDUs are limited, but some older surveys on the reported amounts received by SDUs suggest how such deviations can be tracked. In both Tanzania and Uganda a number of Public Expenditure Tracking Surveys (PETS) were undertaken in the late 1990s and early 2000s that give an indication of the magnitude of shortfall in grants to SDUs in this period. In Tanzania, a 1999 PETS estimated the leakages from grants to schools to be 57%, and for health clinics 41% (Gauthier, 2006). In Uganda, the same study covering the period 1991-1995 estimated the leakage from capitation grants to be 87%, but falling to 18% by 1999/00. This may be related to decisions by the Ministry of Finance of Uganda to centralise capitation grant payments for schools, which are now made directly into school bank accounts. This could perhaps be interpreted as an admission of the magnitude of the principal-agent credibility problem: the Ministry of Finance appears to have chosen to guarantee payment to schools itself,

rather than investing in capacity-building in the Ministry of Education and/or instituting stronger oversight of the Ministry to ensure that it does the transfer itself.

In terms of what will be driving budget non-credibility at this level, many of the same issues discussed in the previous stages of budget execution will apply. Higher-level agencies may withhold funds for their own use rather than transfer to meet the budget's requirement (a principal-agent issue) – which may have motivated a change in policy in Uganda, as noted. Alternatively, or in addition, budget planners may never have expected SDUs to realistically receive the stated amounts in any case, but are aware of the importance of this for external stakeholders such as taxpayers, domestic political interests or international donors (a signalling issue).

Stage 6: Payments to suppliers/contractors

Measuring credibility at the contract level is even more challenging as full data on individual government transactions are not available. However, other measures provide some insight. In Uganda the annual budget monitoring report, although it only covers select government programmes each year, gives an indication of the type of budget credibility problems at a low level. In 2010/11 for instance, considerable cost overruns were recorded on two hydroelectric projects (Bujagali and Buseruka). Furthermore, there were also indications that many other projects were not delivered to specification or not delivered at all, despite funds having been released.

Uncertainty, principal-agent problems and signalling problems may all be at work at this level. Individual project costs may be genuinely hard to assess. Non-routine activities such as large capital investments are hard to cost accurately until contractors have bid and even then, cost overruns are common. But principal-agent problems are also particularly hard to manage at this level. In relations with suppliers and contractors, agents have considerable advantages over the principal as collusion with suppliers is hard to monitor. Moreover, suppliers have an interest in keeping their initial bid prices low in order to win government contracts, and to subsequently renegotiate the project once it has already started and the government can no longer credibly threaten to terminate the project. Furthermore, signalling problems may also be at work. Collusion with suppliers may be a centrally sanctioned means of channelling resources to unstated governmental budget priorities (what Schick calls the 'hidden budget'), such as an election campaign. Furthermore, in some countries the President may in effect 'allow' a certain general level of corruption in low-level transactions in order to placate politically important constituencies.

Another indication of poor budget credibility at the level of individual contracts is the chronic generation of expenditure arrears in our focus countries. As noted, arrears can be a way for agencies to subvert expenditure controls by entering contracts with suppliers or contractors without the means to pay for them (unruly agents); alternatively they can be a means for the government to access goods and services knowing it will not be able to pay immediately (a signalling issue). Within the sample countries there is again variation in performance. Arrears are a recurring problem in Uganda (PER 2003; PEFA 2009; IMF 2009), with spending agencies building up payment obligations to suppliers (particularly of utilities) outside the expenditure control system. The stock of arrears stood at 10-17% of total expenditure between 2006 and 2008 (PEFA 2009). In Liberia on the other hand, the government has successfully limited the accumulation of new arrears through a commitment control system that provides strong ex-ante controls (IMF, PEFA, 2012).

3.4 Conclusion

This section has shown how credibility problems cascade down the budget implementation chain in practice, starting with weak revenue projections. As funds flow further down the chain the deviations between budget and actuals tend to widen. The examples from Liberia, Tanzania and Uganda show how non-credibility might play out in practice, illustrating the difficulty of determining which of the three drivers of expenditure drift – uncertainty, principal-agent and signalling issues – are influencing outturns.

4 Responses to budget credibility problems

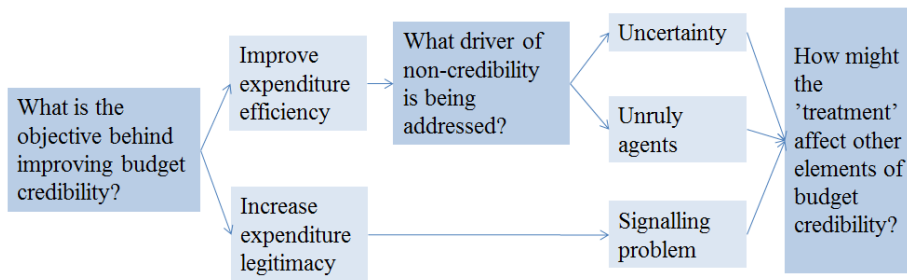
4.1 Introduction

The types of credibility problems discussed in the previous section have certainly not gone unnoticed by government officials. Public expenditure studies and PFM reform plans from all three case study countries highlight the importance of improving budget credibility and are replete with recommendations for tackling such problems. The following section discusses common responses to credibility problems in developing countries, drawing on examples from Liberia, Tanzania and Uganda. Some of these responses have generated an extensive literature of their own. This includes fiscal councils (IMF, 2013); medium term expenditure frameworks (MTEFs) (World Bank, 2012); and fiscal transparency (Arbatli and Esconolo 2012). The aim here is not to account for or critique this literature but rather to illustrate how the framework set out in Section 2 and Section 3 can help us to evaluate the merits and drawbacks of the various responses to weak credibility.

Most responses to budget non-credibility carry costs as well as advantages. Consider for example the costs and benefits of stricter budget laws. Revisions to the budget legislation that lower the threshold at which the executive must approach Parliament for approval of virements between votes may improve vote-level credibility, but this could be at the risk of reducing government flexibility and lengthening the time it takes to respond to a changing budget context. Such a response may be effective if the executive is actively taking advantage of virement rules to shift spending priorities in-year, but will do little to improve the situation if the deviations at vote level are a result of weak capacity to forecast revenue.

A problem in the literature on budget credibility is the failure to account for the different objectives of budget credibility and drivers of expenditure drift. As a result, advocates of ‘treatments’ for budget credibility rarely acknowledge their possible side-effects on other aspects of the budget system. To address this lack, the framework set out in this paper suggests ways of improving the budget credibility diagnosis, bearing in mind the two objectives of a budget as set out at the start of the paper. The first step then is to consider the underlying objective of budget credibility: is it to strengthen the budget contract, or to improve expenditure efficiency? The second step is to determine the driver of weak credibility: is it driven by uncertainty, unruly agents or signalling problems? Finally, it is important to weigh the potential costs of the reform to other parts of the budget cycle. The framework is illustrated in Figure 7.

Figure 7: Diagnosing budget credibility problems



Source: Authors' own.

Below we discuss the ways in which governments have commonly responded to weak budget credibility and what costs such responses may have if the diagnosis of the credibility problem is wrong.

4.2 Improving expenditure efficiency

4.2.1 Tackling budget uncertainty

Governments can seek to reduce uncertainty at the planning stage by investing in their capacity to forecast revenue and expenditure. Typical measures include improving revenue forecasting models and strengthening the expenditure execution process, for example by boosting the staffing or skills levels of budgeting departments. Such measures all impose direct time or investment costs, however, and these must be weighed against the likely gains. A government can also manage uncertainty by building in buffers in case of revenue or expenditure shocks (contingency budgets), or by reducing the forecast period by budgeting more frequently (supplemental budgets).

The governments of Liberia, Tanzania and Uganda frequently make use of contingency budgets. Contingency budgets can manage uncertainty in several ways: they can be used as a buffer to absorb unexpected spending pressures that arise over the year, leaving planned expenditure in other areas of the budget to continue unaffected; and in the case of a revenue shortfall, a contingency budget can be used to make up the difference between planned expenditure and available funds. However, as contingency budgets defer budgeting decisions until the budget execution process begins, they reduce the relevance of the budget planning process and therefore the budget as a management tool. For the same reason, large contingency budgets that are allocated in-year reduce the value of the formal budget approval process, weakening the role of the budget as a contract between tax payers and government.

Liberia has worked around the problem of opacity in the contingency budget by dividing its budget into a core and contingent section, both of which are line itemised. The contingency budget, primarily focused on capital expenditure, is only disbursed if revenue becomes available above the requirements of the core budget (IMF PEFA 2012). This ensures a pre-defined and transparent prioritisation of expenditure, although the lack of certainty around access to the contingency budget may nonetheless discourage planning for its use and thus take a toll on expenditure efficiency. In the early 2000s, the Tanzanian government used a similar approach, budgeting for a contingency that was to be used for salary supplements if revenue predictions were realised, in effect making wage policy a residual contingent on revenue performance (Tanzania PERs 2001 and 2002, and 2009).

However, contingency budgets can also conveniently serve to obscure spending patterns and exacerbate signalling problems. Where there is a considerable difference between the spending priorities of the government and that of its stakeholders, contingencies can give governments leeway to shift spending priorities in-year and cloud the budget as a statement of policy intent. In 2005 for instance, the Tanzanian PEFA assessment raised concerns about the use of the contingency budget to pay arrears to suppliers for past years' expenditures, rather than respond to the unexpected spending pressures of the current year (Tanzania PEFA 2005). In 2013, donors in Uganda questioned the large share of the 2012/13 supplementary budget dedicated to public administration (TASU, 2013).

Supplemental budgets are another common way of managing volatility, by in effect shortening the forecast period. Liberia's Ministry of Finance has made frequent use of supplemental budgets, in effect budgeting twice a year as revenue forecasts become firmer (World Bank, 2009; IMF, 2012). Uganda has passed supplemental budgets every year over the past five years, at a total value of 5-10% of total spending (TASU, 2013). Like contingency budgeting, supplemental budgets are a sensible emergency measure in case of unanticipated shocks and significant uncertainty. However, the effect of regular supplemental budgeting can be to reduce the budgeting cycle to a six-monthly one, undermining the budget's value as an annual planning tool. This can reduce the meaningfulness of a Parliament approved 'annual budget', further limiting the role of the budget as a contracting device.

In Tanzania and Uganda there is evidence to suggest that supplemental budgets are used to subvert policy intentions in the original budget document, which usually receives greater parliamentary and public scrutiny than in-year reallocations. In a similar way to the Uganda example discussed in the previous section, a 2005 study on Tanzania showed that powerful central agencies tend to gain from in-year reallocations. Beneficiaries include the Office of the President, the Office of the Vice President, the Office of the Speaker, the Ministry of Foreign Affairs and Defence, often at the expense of more obviously developmental spending (World Bank, 2005). In a similar vein, a study from 1997 in Uganda found that most of the release uncertainty for line ministries in Uganda was due to supplemental budgets that reallocate spending patterns in-year, rather than revenue shortfalls (cited in Byaruhanga et al., 2010).

4.2.2 Limiting principal-agent problems

A common response to principal-agent problems is to increase control by the principal and reduce the autonomy of the agent. In a budgeting sense, this could mean requiring sign-offs from the Ministry of Finance before an agency can enter a spending commitment, centralising payments through the treasury, or instituting a cash budget, which increases central control over the pace of expenditure. Such centralising practices have efficiency costs, however, as they increase transaction costs, reduce the predictability of resource flows for spending agencies, and limit the discretion of budget managers to respond to local circumstances lower down the chain.

The other common prescription for reducing principal-agent problems is to increase the information available to the principal about the performance of agencies and individuals. This information can then be used to sanction or reward performance and thus better align incentives. Information can be strengthened through additional reporting requirements, physical inspection of funded activities and better internal audit. Budget institutions that set clear lines of accountability for funds also enable the principal to more easily sanction any misbehaviour.

Liberia, Tanzania and Uganda all have strong central controls over budget execution as a result of the introduction of cash budgeting. Uganda's cash budget was introduced in 1992 and is relatively flexible, giving a Ministry of Finance-led committee the power to set quarterly cash limits; Tanzania introduced a stricter regime in 1997 that limited monthly spending to monthly revenue intake; and Liberia introduced a strict cash budget in 2006 after the first post-war elected government, in part because its debt overhang meant it had no reserve cushion or means of borrowing in order to smooth spending. All three countries have some form of cash management committee, usually managed by the Ministry of Finance that sets the spending limits for agencies. Spending agencies must wait for their monthly or quarterly cash limits before they know their actual budget.

Cash budgeting is credited with having maintained fiscal prudence in Liberia, Tanzania and Uganda and setting incentives for realistic budgeting. Since the early 1990s in Uganda and Tanzania, and since 2006 in Liberia, all three countries have an impressive track record of low deficits, modest inflation and sustainable debt levels (World Development Indicators, 2013). This has been linked, in part, to centralised cash budgeting: to quote a Tanzanian study from 2002, 'abandoning the cash budget system would alter the incentives for realistic estimates of resource availability and could give rise to pressures for more optimistic resource projections' (PER 2002, p.27).

However, cash budgeting does carry costs. As with contingency budgets, it risks deferring actual allocation decisions into the spending year, which can undermine the budget as a planning and management instrument. As the IMF argues, 'Usually, the cash releases are below warrant levels, and the latter are often below budget authorisations. Ultimately, these releases represent an attempt to do through budget execution what should have been done in budget preparation – adjust expenditure policies to meet changed resource availability' (IMF, 2006, p.24). In all three countries discussed in this paper, the management of in-year revenue volatility through cash budgeting risks 'back-loading' of expenditure towards the end of the fiscal year, when sufficient revenue balances have built up, which gives spending agencies insufficient time to spend funds efficiently (Liberia 2009 PEMFAR; Tanzania PER 2007). Furthermore, once in place, cash budgeting does appear to contribute to greater budget opacity, increasing the likelihood of a signalling issue. The negative impacts of cash budgeting on budget credibility have also been recognised in both Tanzania and Uganda. Development partners in both countries have argued for a gradual relaxation of the cash budget in order to improve release predictability and timeliness for spending agencies (Tanzania PER 2003; Uganda PEFA 2012). In Uganda a recent assessment of financial management suggested that cash budgeting allowed for an 'easy alibi' for not releasing budgeted funds in line with planned budgets (Republic of Uganda, 2012); and a study from 1999 on Uganda and Zambia argued that cash budgets are not primarily a way for the executive to credibly commit to fiscal prudence, but rather a means to control spending agencies (Stavasage and Moyo, 1999).

4.3 Improving expenditure legitimacy

4.3.1 Signalling problems

There are numerous institutions that could be deployed to challenge the signalling component of non-credibility. The modern budget cycle itself with parliamentary approval of expenditure estimates and ex-post parliamentary scrutiny of external audit reports, is an institution that has evolved principally to give tax payers/citizens control over public spending and to align the incentives of the executive and voters (Von Hagen, 2005; Krause, 2013). The main means by which citizens, through their elected officials, hold the government to account for

spending is through ex-post scrutiny of the budget. An external audit function, at arm's length from the executive, can scrutinise government spending and report any breaches to the legislature. Rules about how the government can use public funds, and at what level of discretion, can be codified in law thus increasing the reputational risk of, and triggering formal sanctions for, breaking pre-agreed budget commitments.

Where these 'standard' public financial management systems still yield sub-optimal results, many countries have resorted to 'supra-laws' that trump the annual budget, such as fiscal rules or cash budgets that are clearer and simpler to monitor than the budget laws. Cash budgets are discussed above as a means of managing spending agencies and reducing principal-agent problems, but it has also been argued that cash budgets provide a means of overcoming signalling problems by providing a more credible political commitment to fiscal prudence. These responses are blunt instruments, however, and reduce the discretion of the government to smooth spending through borrowing or drawing down reserves.

Another common practice in developing countries is to ring-fence particular parts of the budget and place them under greater external scrutiny than other parts of the budget (so-called virtual funds). Virtual funds are usually based on agreements between donors and governments to protect particular budget lines that are of high priority to donors from in-year cuts. In essence, this practice improves the credibility of certain parts of the budget, but as a result, non-protected programmes or sectors must absorb a disproportionate share of any expenditure shortfall. Bevan (2007) has argued that this practice of ring-fencing expenditure (usually of lines deemed to be 'pro-poor') rests on the flawed notion that non-protected sectors are not 'pro-poor' or developmental. As national budgets combine a variety of spending that is designed to optimise government objectives, expenditure on, for example, general government administration may be equally critical to poverty reduction at the margin. Offering certain sectors a 'special guarantee' of funding can also reduce the ability of the Ministry of Finance to exercise its challenge and scrutiny function regarding the efficiency and effectiveness of such expenditures, as the favoured sectors are already 'protected' from significant changes in allocation.

Uganda, through the formal Poverty Action Fund, has privileged certain segments of the budget by protecting them from in-year cuts, subjecting them to greater oversight and monitoring than the rest of the budget (Canagarajah and Williamson, 2008). Tanzania in the early 2000s also made clear statements about a set of sectors or spending items that were protected from cuts, notably statutory payments, salaries, health, education, water, roads, judiciary and land issues (Tanzania PER 2001). Uganda's experience with the Poverty Action Fund has been viewed reasonably positively, and is thought to have shifted budget allocations towards those priorities that external stakeholders favoured (primarily social services), improved the predictability and monitoring of spending in these areas, and strengthened donor-government relations (Canagarajah and Williamson, 2008; Bevan, 2007). However, Uganda's virtual fund has had drawbacks too: it arguably skews spending too far towards social services at the expense of weakened support for other sectors, such as infrastructure development.

4.4 Conclusion

In summary, where the 'classical' annual budget process fails to produce a credible budget, governments will often adapt the budget process or augment it with additional measures. However, as noted, each response will have drawbacks that must be traded off against the benefits they produce, as well as having potential conflicts with other responses aiming at improving credibility through different

means. Furthermore, the ‘response measures’ require careful consideration about what problem they are trying to solve. A faulty diagnosis of the credibility problem can result in a prescription that potentially does more harm than good. As discussed, widespread corruption may be seen as a principal-agent problem (lack of control over bureaucrats), whereas it is in fact a signalling problem (toleration of a certain level of corruption). Furthermore, adoption of certain institutional responses may itself be a signalling device, whereby the President aims to put on show the correct form of improving budget credibility but knowing that in practice it will be business as usual. Finally, the effectiveness of the institutional response to non-credibility, even with a genuine desire for change from the President, may be constrained by the general capacity level of public institutions in general (considered an uncertainty problem in the discussion above). In a poorly performing public bureaucracy, new institutions to increase budget credibility may simply perform equally poorly, given the available human and technical resources.

5 Conclusion

Poor budget credibility is a multifaceted problem that undermines the budget both as a management tool for planning and monitoring public expenditure, and as a contract between tax payers and donors and the government. This paper analyses the reasons for poor budget credibility and suggests that there are three distinct causes of expenditure drift: uncertainty, principal-agent problems and signalling problems. While the first two problems are a management issue (i.e. greater management capability would reduce these problems – and infinite capability would solve them entirely), signalling problems are less amenable to managerial or technical fixes. They emerge precisely because of the contractual nature of the national budget and the divergent incentives of the President and his stakeholders. The problem of the budget then, is that this single instrument serves two distinct purposes. When these goals are not aligned the budget process loses its relevance; the President seeks to manage resources internally in a different way from what he projects outwards in official budget documents. It is partly the complexity of forces acting on the budget that keeps actors from abandoning the process entirely: it is never entirely clear if deviations from plan are a result of an external shock and weak capacity, an inability to control subordinates, or conflicting pressures from different stakeholder groups.

All three drivers of expenditure drift are present at different stages of the budget implementation process and it is challenging to disentangle and separate their effects. Available budget data from Liberia, Tanzania and Uganda have illustrated how these drivers can play out in practice. This analysis has provided further information on what types of expenditure might be more or less credible, noting that wages appear most credibly delivered compared to budget, goods and services somewhat less so, and that capital budgets are typically significantly less credible. The discussion put forward evidence from Uganda that spending agencies connected to central government administration and the security sector might particularly benefit from a lack of credibility in the budget execution process, and suggested reasons why.

Finally, the paper has considered various responses to weak budget credibility. In reviewing those responses that are commonly employed in the three case study countries under consideration, it has been shown that they can positively impact on certain aspects of budget credibility; but that they carry costs. They carry a resource cost themselves to set up and maintain, but beyond this the positive credibility gains in one area must be weighed against the possible increase in non-credibility of the budget in areas not covered by the institutional response and the risk to undermining the effectiveness of the budget as a management and accountability tool. Alongside all this, the PEFA indicators that are most commonly used to measure credibility – and have a strong influence on donor decisions to engage with government PFM systems – have a strong focus on the aggregate macro-fiscal side of budget credibility, but relatively little insight into the ‘hidden middle’ of budgeting below top level classifications.

Several points emerge from this analysis. First, the need to ensure that those seeking to improve budget credibility undertake a careful diagnosis of the nature of

the problem they are trying to solve. What looks like a principal-agent problem on the surface may in fact be more accurately described as a signalling issue; and the appropriate institutional response will therefore differ.

Part of the reason for fairly limited analysis of budget credibility in the PFM literature today, and the challenges faced in using country data to produce this study, is that budget data are too scarce and/or poor in quality to enable cross-country analysis. As countries improve the accessibility and quality of budget data (for instance through the recently launched World Bank BOOST initiative, which compiles and places open budget platforms online), the time and costs of conducting more systematic cross-country analyses of the magnitude and nature of expenditure drift will reduce greatly. Greater transparency of government spending data below the aggregate revenue and expenditure level may allow frameworks such as PEFA to begin to include more of the 'hidden middle' within the scope of their assessment.

Going forward, research that considers budget credibility at various levels of disaggregation and that isolates recurrent patterns to under- and over-performance could shed further light on how budgets are executed in practice and what pressures influence allocative decisions in-year. Further case study work could also help to understand how responses to budget non-credibility function in practice, what problems they are actually addressing, and what costs or distortions they in turn impose. A more systematic review of the most institutional responses to non-credibility with regard to their advantages and disadvantages might be useful to make trade-offs clearer to budget decision-makers and their supporters.

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ISSN (online): 1759-2917

ISSN (print): 1759-2909

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