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The Technology of Fiscal Reform *Imperatives for Finance Ministries*

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EXECUTIVE SUMMARY

Governments around the world are in various stages of fiscal reform, with many taking the steps necessary to more effectively rein in costs and better align spending with revenues. In the Middle East region, Egypt, Jordan, and the United Arab Emirates are among the leaders implementing new systems to gain greater transparency in their fiscal management processes.

As finance ministers in the Middle East seek to improve their fiscal oversight, one approach gaining favor is the adoption of a government fiscal management information system (GFMS). This standardized, robust, and automated system for managing government revenues and expenditures is giving finance ministers and other decision makers the tools they need to improve government services, reduce costs, and attract better borrowing terms.

Because any large-scale and deep-rooted government transformation is likely to encounter bureaucratic resistance, special care must be taken to develop a clear strategy and establish realistic expectations. Designing a GFMS program with a vision of how each end-state element will support critical fiscal management processes, and introducing the program methodically through modules, will dramatically increase the efficiency of the implementation and help stakeholders see the benefits.

KEY HIGHLIGHTS

- Substandard budgeting practices adopted by many governments in the Middle East have made it more difficult for them to manage the growing needs of their citizens and improve the overall quality of government services.
- A GFMS empowers finance ministers by giving them the tools to improve government performance through increased control over funds, greater visibility into government spending and liabilities, and centralized cash flow reporting.
- Designing the GFMS program with distinct end goals in mind will help develop a structured, phased-in plan to prioritize investments across spending units, and encourage buy in from key stakeholders.
- An effective GFMS implementation must be seen as more than an IT initiative if all of the necessary reforms—to budgeting approaches, accounting policies, legal frameworks, and government culture—are to be made.

GOVERNMENT BUDGET WOES IN THE MIDDLE EAST

Governments worldwide are facing the twin challenges of meeting the growing needs of their populations and improving the quality of their services while remaining within their budgets. This pressure is amplified in the Middle East region, where substandard budgeting practices have constrained governments' ability to use fiscal policy tools to "do more with less."

Generally speaking, government entities in the Middle East suffer from the absence of clear and consistent methods to project and determine the level of funds they require to properly perform their duties. As a result, they often take a "wish list" approach by exaggerating their demands for funds, then spend every last dollar for fear of having their future budgets cut. Without realistic estimates of future expenditures, governments perpetuate a spiral of overspending in certain areas and under-spending in others, and take on expensive debt to overcome the budget deficits that inevitably result.

Once budgets are approved and appropriated, Middle East countries

then often struggle with managing actual revenues and expenditures. Funds are generally kept at several banks, rendering centralized cash management—and thus stable short-term liquidity—nearly impossible. Liquidity shortages force governments to take on additional and unnecessary debt to fund cash shortfalls.

A further fiscal management issue faced by governments in the Middle East relates to budget reporting. An accurate representation of a country's financial position, issued on a regular basis, is fundamental to a better understanding of the sources and uses of funds. Budget reports should be standardized yet flexible, allowing a variety of financial views, to cater to the needs of different audiences such as foreign investors, debtors, and high-level government officials and decision makers. Yet Middle East countries often lack basic transparency into their standard budget lines across government entities. This shortcoming complicates the aggregation and analysis of financial activities, leading to delays in the budget reporting process and inaccurate information.

Given that fiscal policy is one of government's primary tools to achieve short-term, medium-term, and long-term economic objectives, these basic capability gaps may hinder the growth potential of many Middle East countries.

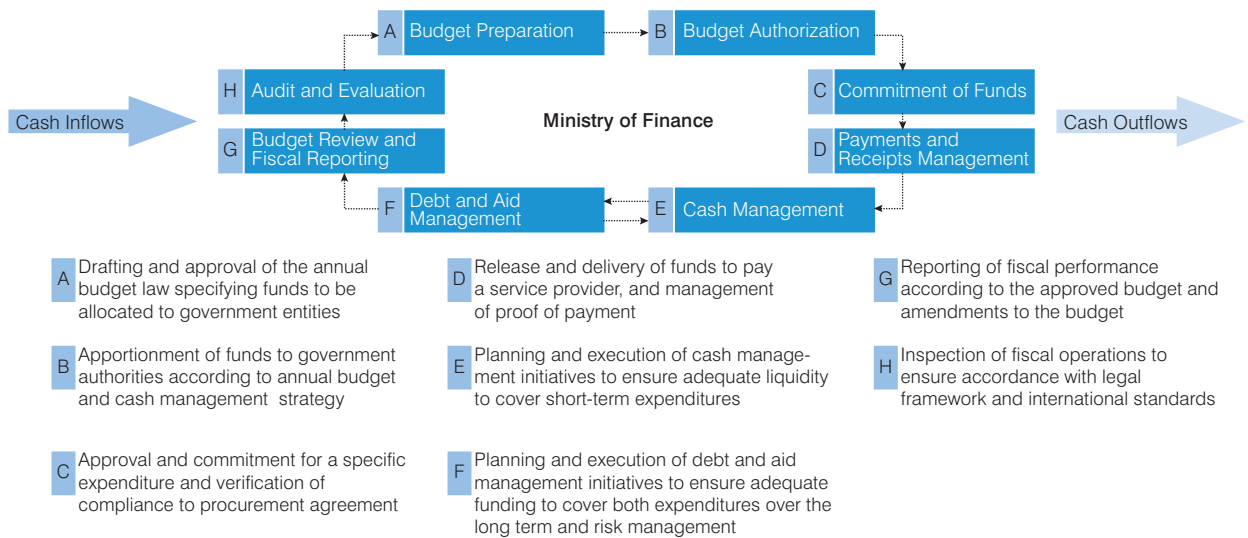
FISCAL MANAGEMENT REFORMS

The management and execution of state budgets entails the ongoing control of revenues, expenses, and funding levels and their terms. These activities constitute the government fiscal management (GFM) cycle, which effectively translates fiscal policy into discrete actions.

The GFM cycle, which includes all the processes pertaining to the man-

agement of government revenues and expenditures, typically includes eight main steps, although each country may group these steps differently based on the type of government and policies in place (see Exhibit 1). The cycle begins with the preparation and approval of government entities' budgets before the start of the new fiscal year, and the allocation of these approved funds according to

Exhibit 1
The Government Fiscal Management Cycle



Source: International Monetary Fund; World Bank; Booz & Company analysis

planned expenditures. As government entities purchase goods and services, funds are released to pay suppliers. Cash inflows and outflows are closely followed to ensure adequate cash is on hand for short-term needs, while funds to meet long-term budget needs are raised through debt issuance, aid, and received revenues. Financial transactions reports measure performance and compliance against the approved budget. Finally, fiscal operations are audited to ensure compliance with national and international standards.

A healthy fiscal management cycle enables a multitude of significant performance improvements, including greater transparency and accountability, tightened fiscal control, improved accounting and reporting, a balanced budget, improved credit ratings, and cost savings. All of these factors lead to more efficient government operations.

Across the globe, government leaders are undertaking ambitious fiscal management reform programs, with measurable results, including cost savings and improved service levels. Organisation for Economic Co-operation and Development (OECD) countries have led the way in GFM through the implementation of numerous reforms in past years. For example, France's fiscal reforms are expected to save the country close to €8 billion (US\$10.6 billion) by 2012, and Britain has already saved £26.5 billion (US\$40.5 billion) per year from its efforts (see "GFM Reform Examples").

Developing countries are following suit. With funding and active support from international bodies such as the World Bank and the International Monetary Fund (IMF), they have begun turning to GFM reform as a way of decreasing public debt, increasing fiscal transparency, and improving overall fiscal management.

A country's GFM capabilities usually depend on its level of economic development:

- *Developing:* Governments mainly use paper-based fiscal management, cash-based accounting, and incremental budget planning that is not connected to performance. As a result, they tend to have difficulty securing the required debt to finance their deficits, they face liquidity problems due to the mismatching of receipts and payments, and they can't obtain attractive borrowing terms due to higher perceived risk. This category includes countries such as Ghana, Bolivia, and Syria.
- *Emerging:* Given their limited resources, emerging nations typically have adopted incremental and phased approaches in automating GFM processes that remain tied to cash accounting procedures. Some

countries have shifted to performance-based budgeting methods, yet for most in this category, their higher perceived risk leads to unattractive borrowing terms. Mexico, Colombia, Egypt, Saudi Arabia, Kuwait, and Qatar fall into this category.

- *Transition:* As their label implies, these governments are in the midst of modernizing their GFM processes, with some processes automated and linked with the banking sector. They have implemented a combination of cash and accrual-based accounting, their budget planning is informed by performance metrics, and they have some measures of cash flow management. These advances have contributed to improved credit ratings and borrowing capabilities. Examples include Slovenia, India, China, the UAE, Jordan, and Lebanon.

GFM Reform Examples

The government of Switzerland realized cost savings of more than US\$160 million in the first year of a new fiscal reform program that centralized all government budgetary accounts under a single account managed by its treasury. The changes, which cost \$70 million to implement, required reforms to the government's organizational processes, technology infrastructure, and laws. On top of the savings, the steps also helped the government increase its control over funds and better track expenditures against revenues.

Similar reforms were also required of Australia's government when it elected to adopt a full accrual-based accounting method and implement performance-based budgeting techniques. Fiscal policymakers gained increased transparency on government spending and liabilities, new mechanisms to assess budget performance, and the ability to more strategically allocate funds to priority programs.

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- *Advanced:* Developed nations have all the hallmarks of GFM maturity: highly automated GFM cycle processes that are integrated with the banking sector, modified accrual accounting, and performance-based budgeting. These attributes allow these governments to proactively and optimally manage their cash flow, maintain balanced budgets, and benefit from higher credit ratings and better borrowing terms. Australia, New Zealand, Singapore, and the U.S. all qualify as having mature GFM systems.¹

Fiscal reform in the Middle East is still nascent. As mentioned previously, government performance and budgeting in the region are marred by limited transparency, budgetary deviations, limited auto-

mation and standardization of processes, mismatch of cash resources, and a general weakness of fiscal control and monitoring.

Even so, some leading countries in the region have taken initial steps to implement GFM reforms. Jordan, for instance, recently introduced a results-oriented budgeting system, linking budget requests to specific outcomes: The system effectively shifts budget focus away from the input of funds and toward the output of actual results. The government sets high-level spending ceilings on a three-year time frame, ensuring funding for multi-year projects. The combination of these two initiatives enabled Jordan's finance ministry to more accurately allocate funds each year, justify that spending with con-

crete results, and plan for long-term strategic initiatives.

In addition, the governments of Jordan and Egypt recently adopted new chart of accounts (CoA) structures according to internationally accepted standards set forth by organizations including the OECD, the IMF, and the World Bank. The CoA is a government-wide, standardized budget reporting structure that categorizes each transaction according to relevant breakdowns (e.g., by function, source, or project). It serves as the basis for the accounting process and is the foundation of the general ledger accounting. Using a standardized CoA ensures accurate budget reporting across all government spending units and enables the balancing of financials on the spending unit level.

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THE CASE FOR A GOVERNMENT FISCAL MANAGEMENT INFORMATION SYSTEM

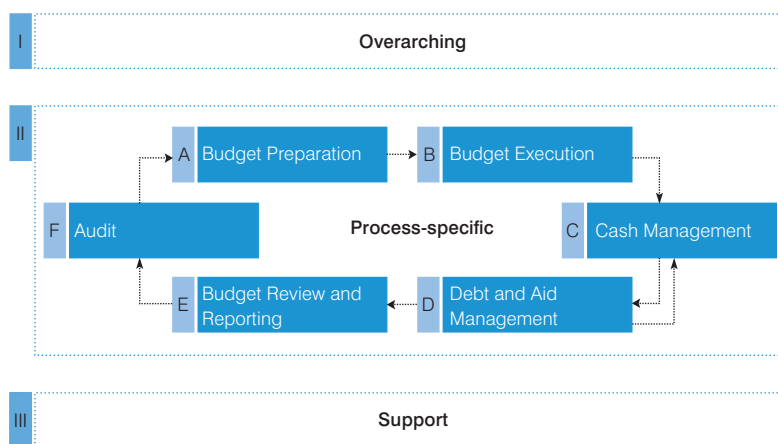
As finance ministers in the Middle East seek to improve their fiscal oversight, few available options offer the same impact that a government fiscal management information system (GFMIS) can deliver. Put simply, a GFMIS is a standardized, robust, and automated system for managing government revenues and expenditures, consisting of hardware, software modules, and processes. A GFMIS grants finance ministers and other decision makers the tools to improve government performance.

A GFMIS works by automating each step of the fiscal management cycle and integrating the steps with each other. Having a sound GFMIS enables automated communication between the ministry of finance and other gov-

ernment entities and spending units, standardizes processes across the fiscal management cycle, allows up-to-date visibility on government-wide expenditures and receipts, defines and enforces user authorities, and centralizes and automates reporting functionalities.

Incorporating a GFMIS into a plan for reform must take into consideration specific characteristics of a country's GFM cycle. To aid this process, Booz & Company has developed a framework that aims to develop GFMIS design elements at three distinct levels (*see Exhibit 2*). The three-tier framework includes overarching, process-specific, and support elements that together complete the GFMIS operating model:

Exhibit 2
Example of Three-Tier GFMIS Design Framework



Note: The process-specific elements, which will vary by country, are drawn from the eight main steps of the GFM cycle. Source: Booz & Company

- *Overarching:* These elements typically address encompassing issues that affect parts or all of the GFM cycle. Examples include streamlining government banking accounts, standardizing the CoA, and overhauling the accounting basis—i.e., moving from cash-based accounting to the more sophisticated modified-accrual or accrual-based accounting systems.
- *Process-specific:* These are more detailed elements that aim to address flaws in the existing processes within the country’s GFM cycle or establish new processes that were not previously implemented. Examples of a process-specific design element include the standardization of cash flow planning and monitoring across the government or the introduction of a centralized system for executing transactions on behalf of government authorities.
- *Support:* These elements are key to the successful implementation of a GFMIS operating model as they are the building blocks required to make GFMIS operational. Support elements typically include the necessary IT infrastructure, training programs, and sufficient capabilities in internal communications, change management, and implementation management.

Identifying the target elements of the GFMIS program is a key step in the process—not just because it establishes the architecture for the needed

reforms that follow, but because it establishes a simplified basis for finance officials to review, discuss, and agree upon the elements, which encourages their acceptance of the overall reform program.

Ministry officials should take into account a multitude of factors when defining the GFMIS program’s target elements. First, they should incorporate strategic guidelines outlined by decision makers, users, and other stakeholders and their vision of the optimal GFMIS design. Second, they should consider lessons from the current situation of the GFM cycle and all its related processes, which allows them to better formulate an end state that is practicable and that addresses existing issues and challenges that are hindering the effective execution of GFM cycle steps. Third, they should analyze best practices and emerging international trends in order to learn from the experiences of other governments that overhauled their fiscal management systems by adopting GFMIS.

After defining what elements the GFMIS will include, stakeholders will need to evaluate their impact along four dimensions:

- *Organization:* Identify the key entities involved in the GFM cycle and processes, their roles and responsibilities, and their points of interaction. For instance, in order to institutionalize centralized cash flow monitoring and reporting in the Egyptian government, a central

cash management unit was established in the ministry of finance to manage this process.

- *Processes:* Design, map, and detail the main processes entailed in the recommended GFMIS end state, such as budget preparation, cash flow planning, and budget execution.
- *Technology:* Describe and detail the IT landscape for GFM processes and the required IT infrastructure for the GFMIS platform, including system modules, functionalities, and hardware and software requirements. The government of Egypt deployed a holistic IT infrastructure to provide a comprehensive automated accounting program and enable instant connectivity between all spending units and the ministry of finance.
- *Regulatory:* Identify and detail the main legal and regulatory updates and modifications required to enact the GFMIS. For example, a new e-signature law was among several legislative and regulatory changes introduced in Egypt to enable GFMIS elements.

Detailing each of the GFMIS’s elements along the four dimensions allows for the creation of a comprehensive and detailed GFMIS manual. This operating model manual serves as a “how-to” guide for policymakers and teams managing GFMIS implementation.

GFMS at Work in Egypt

The Egyptian government's spending units currently have more than 50,000 bank accounts in the Central Bank of Egypt. One key element of Egypt's adoption of a GFMS will be a treasury single account (TSA), which aims to aggregate all of the government's bank accounts and its budgetary cash position into a single account. A TSA not only facilitates the tracking of all revenues and expenditures but also helps to reduce the fees, interest, or penalties incurred from funding cash-poor entities with high-interest, short-term debt instruments.

The TSA relies on the GFMS system to automate budget execution processes and facilitate the establishment of new treasury functions such as cash management. The GFMS will maintain transactions through a general ledger accounting that consists of virtual accounts for each government department and automatically issues payment orders and receipts to and from banks.

The target design elements in Egypt's GFMS will also enable e-signature approvals, automated commitments booking and verification of payment transactions against cash flow ceilings, and automated bank transactions (see Exhibit A).

Exhibit A Target Design Elements of Egypt's GFMS

Overarching	1	Established Treasury Single Account (TSA): streamlined government bank accounts and treasury processes
	2	Standardized Chart of Accounts: refreshed and standardized CoA to reflect planned processes
	3	Established Treasury Functions: dual function of centralized cash flow reporter and payment executor
Process-specific	4	Budget Preparation: supported by fully automated workflow; enabling the automation of the budget-preparation cycle
	5	Budget Preparation: development of annual cash flow forecasts and setup of cash outflow limits
	6	Budget Execution: commitments booking to enable accurate cash flow planning
	7	Cash Management: development of cash flow plans with centralized cash flow reporting
	8	Budget Review: fully automated with customizable reports
Support	9	Holistic IT System Landscape
	10	Comprehensive, Effective IT Infrastructure
	11	Dedicated, Ongoing GFMS Task Force
	12	Phased Implementation Approach
	13	Strong HR Capacity Building and Cultural Change
	14	Facilitated Legal Approval

Note: The design elements presented here are less specific and more generally relevant than those actually used in Egypt.
Source: Booz & Company

OVERCOMING IMPLEMENTATION CHALLENGES

As with any large-scale and deep-rooted transformation, the implementation of the GFMS operating model has its challenges, and stakeholders often have to manage their expectations. The overall process of managing a government's fiscal responsibilities is embedded in bureaucracy, and not only because it may directly or indirectly affect spending power and is thus likely to be contested by ministers and others at the higher levels of government. It is also a case of fighting against inertia, as many of the processes have been performed in the same manner for decades. When this is the case, changes are often resisted by clerks, auditors, and other groups of stakeholders.

Moreover, many countries have hundreds of entities with spending authority, or spending units—Egypt has around 2,500. This makes the rollout of a new operating model a true logistical challenge. Technological readiness at these units, as well as at the ministry of finance proper, may vary widely, affecting the speed and flexibility of the transformation plan.

Most governments also have strong binding laws and legislation that can severely hinder, if not change, some of the operating model's required design principles. For example, allowing authorizations to be made electronically requires a digital signature law, which may not already be in place and would have to be enacted.

In order to systematically overcome these challenges, ministry officials will need to employ two approaches simultaneously.

The first approach involves grouping the elements of the GFMS into modules based on which will have the greatest impact, the greatest ease of implementation, and/or the most dependencies. No consideration is greater than the other; all three requirements must be balanced together. For instance, budget preparation is the starting point of the GFM cycle; it requires minimal capital investment or legal changes; and it enables the entry of spending units' approved budgets into the GFMS system. Without the budget preparation module, the budget execution module would be implemented

prematurely. Therefore, it is a prime candidate for early implementation.

Ministry officials must decide whether to introduce all GFMIS modules at the same time or to roll them out in phases. The solution usually depends on the time needed to centrally implement the new modules and on the logistics required—such as number of units and geographic spread—during their introduction.

The second approach involves deciding the order in which the spending units will receive the deployed modules. Spending units are typically prioritized based on their strategic importance as measured by each unit's share of government expenditure and receipt, though ease of implementation is also a factor. For instance, although the ministry of education may have a high number of spending units, it is very likely that collectively they

only represent a small portion of the government budget. In addition, they are likely to be spread throughout the country, making implementation, especially in rural areas, difficult and time-consuming. As such, that ministry will likely not be among the first to implement the new modules. It is frequently more efficient and beneficial to tackle the high-spending and receiving units in descending order regardless of which ministry they belong to, rather than to take on a ministry as a whole, no matter how large its budget is.

Incorporating both of these approaches at the same time can dramatically increase the efficiency of the GFMIS implementation, and allow for spending units lower down the priority list to benefit from the early units' experience. Doing so minimizes up-front costs and improves the overall design of the modules.

A final major challenge is the development and delivery of a comprehensive and effective training curriculum. Training sessions need not only include “technical sessions” on how employees use the new module interfaces, but can also take the opportunity to offer the employees a refresher on accounting principles, changes to the CoA, and other developments.

To implement the GFMIS operating model in Egypt, the government started by launching a pilot program that targeted two spending units in the Ministry of Finance before it engaged in a full nationwide rollout. The benefits of this approach included greater buy-in due to top-down control, faster implementation, and a greater tolerance of the inevitable issues that initially arise in large-scale implementations.

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CONCLUSION

Egypt's launch of its GFMS pilot at the Ministry of Finance provides helpful guidance for other finance officials in the region to follow, as the government was able to identify several critical factors behind its success.

First, it is imperative to establish an operating model that will serve as the comprehensive plan to achieve the desired objectives. This plan should incorporate numerous new and ongoing initiatives, and aggregate them into a modular target design that engages senior and junior officials alike. This modular design allows all stakeholders to envision the impact and benefits to their piece of the pie by providing them with easily understandable and digestible design elements.

Second, the overall design and implementation of the GFMS program must be seen as more than an IT endeavor. Such programs hinge just as much on a thorough understanding of budgeting mechanisms, laws, accounting procedures, and other factors that demand a business-centric governance model. It is imperative to ensure that all design elements drive and enhance business requirements, and not merely automate existing, inefficient business processes.

Finally, the implementation of GFMS and GFM reform requires the prioritization and regular attention of the minister of finance. Without it, it is very likely that the momentum required for such a complex and multi-year program will not materialize.

Endnote

¹ The definitions used in this section to explain nations' levels of economic development were developed by Booz & Company and draw upon International Monetary Fund data and other sources.

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