

Republic of Armenia

Public Financial Management Reform Priorities

October, 2010



THE WORLD BANK

Poverty Reduction and Economic Management
Europe and Central Asia

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Preface

A World Bank team visited Yerevan during January 25 to February 5, 2010. The mission comprised: Mr. P. Brooke (Consultant), Mr. J. Kristensen (Senior Public Sector Specialist and Task Team Leader), Mr. S. Eckardt (Economist), Ms. G. Gyulumyan (Economist), Ms. N. Khackatryan (Team Assistant), Mr. V. Ramachandran (Senior Public Sector Specialist), Mr. E. Talero (Consultant) and Mr. A. Vatyan (Senior Financial Management Specialist). Mr. Balabushko (Economist) and Mr. Sulko (Operations Officer) provided input to text boxes in the report subsequent to the mission. The report was peer reviewed by Henri Fortin (Senior Public Sector Specialist) and Theo David Thomas (Senior Public Sector Specialist).

In the Ministry of Finance, the mission met with Mr. Tigran Davtyan, Minister of Finance, Mr. Pavel Safaryan, First Deputy Minister, Mr. Atom Janjughazyan, Deputy Minister, Chief Treasurer, Mr. Vardan Aramyan, Deputy Minister, Mr. Koryun Atoyian, Advisor to the Minister, Mr. Karen Brutyan, Head of Procurement Process Regulation and Budget Execution Methodology Department, Mr. Hayk Ghalumyan, Head of Expenditures Financing Department, Mr. Armen Hayrapetyan, Head of Macro-Economic Department, Mr. Sevak Hovsepyan, Head of Internal Audit Department, Ms. Gayane Zargaryan, Head of Department Budget Processing & Reporting, Mr. Arshalouys Margaryan, Head of Public Debt Management Department, Mr. David Hambarzumyan, Head of Budget Processing Management Department, Mr. Zhirayr Titizyan, Head of Operations Department and Artak Vostanyan, Head of Erebuni District Treasury Department. The mission also met Mr. Gagik Minasyan, Chairman of Standing Committee on Financial-Credit and Budgetary Affairs in Parliament, Mr. Levon Yolyan, Deputy Chairman and Mr. Karen Arustamyan, Head of Methodology Department, IT and International Affairs in the Chamber of Control and Mr. Vahe Nikoyan, Head of Finance Department in Yerevan Municipality.

The mission worked in close consultation with Mr. Aristome Varoudakis, Country Manager for Armenia and under the general guidance of Mr. Asad Alam, Regional Director for the South Caucasus Country Department, Mr. William Dorotinski, Sector Manager, Public Sector and Institutional Reform, Europe and Central Asia Region and Mr. Ahmadou Moustapha Ndiaye, Sector Manager, Financial Management, Europe and Central Asia Region. The report was cleared by Mr. William Dorotinski and Mr. Ahmadou Moustapha Ndiaye.

The mission will like to thank all the officials from the government of Armenia, particularly the Ministry of Finance for their time, hospitality and availability to discuss all the issues in a frank and open manner.

Summary

The objective of this paper is to provide practical recommendations for improving the effectiveness of the public financial management system. Previous versions of this report provided inputs to the Armenian Strategy for Reforming the Public Financial Management System. In addition, the purpose is to inform a possible multi-donor facility to support the implementation of the strategy.

Key findings and recommendations are summarized below.

Budget formulation

Major achievements have been made during a first reform phase particularly in regard to the planning processes and macro management. Efforts have been made to prepare for using program based budgeting as a basis for appropriations.

The report recommends the following steps for the next stage of reforms:

- On the medium term fiscal framework: Further strengthen forecasting and consider initiating a fiscal risk assessment.
- On the medium term expenditure framework: Consistently apply baseline presentation across all functions.
- On program budgeting: Reassess the time line for using the program format for appropriation.
- Initiate work on improving investment assessment and management.

Budget execution

Armenia has a well functioning but non-comprehensive treasury single account, stringent cash planning and management and well developed payment processing etc. Challenges in budget execution pertain to lack of a cohesive internal control framework and antiquated internal auditing. Major risks are associated with the exclusion of non-commercial organization from the whole-of-government budget and budget execution systems and processes.

The report recommends the following steps for the next stage of reforms:

- On preparation for program budgeting: Include program and activity classification in the chart of accounts and develop posting and reporting rules for this new classification.
- On Accounting reform: Address well know weaknesses of the current cash base accounting and reporting, initiate preparatory activities for strengthening of public sector accounting.
- On reporting: Include non-commercial organizations in whole-of-government budget execution processes. Enable line ministries to submit quarterly statements electronically.
- On public internal financial control: Establish the appropriate regulatory framework and an internal audit charter, organizationally ensure the functional independence of the Head of the Internal Audit unit and phase in internal auditing over a period of years starting in two to three agencies. Ensure that internal auditors in these two to three agencies are identified and trained.

Cross cutting challenges

Key challenges pertain to stronger integration of functional processes within the Ministry of Finance, integration and enhanced capability of ICT systems and capacity, professionalization and motivation of financial management staff across the cycle and across Government institutions.

The report recommends the following steps for the next stage of reforms:

- On an integrated financial management information system: Carefully assess existing cost estimates, develop an ICT strategy for the Ministry of Finance and decide whether a standardized commercial-off-the-shelf or a bespoke “home made” approach to implementing the system represent the best balance between costs, risks and benefits. Then, plan, procure or hire and implement a new system as also recommended by the IMF, SIGMA and consultants hired by the Armenian Government.
- Capacity, organization and motivation: Continue to expand skill building across all functional areas of the financial management system and develop a training program for non-financial managers.

Reform scenarios

Substantial activities have been undertaken in preparation of the next phase of reform including in the areas of program based budgeting, a government financial management information system, debt management, internal control, accounting and procurement, etc. In addition, preliminary efforts have been initiated to bring the parts together in a comprehensive public financial management reform strategy. However, planning of the next phase has largely been undertaken without regard for the potential costs.

The report recommends that the strategy for public financial management reform in Armenia be costed and scaled to available funding. The report suggests different reform scenarios adjusted to funding availability:

- Scenario 1: Comprehensive ICT enables business process re-engineering. This scenario would implement the recommendations of this report. It is estimated that completion would take 5-6 years with the overall timing and critical path determined very much by the pace of implementing the full government financial management information system.
- Scenario 2: Intermediate ICT enabled business process re-engineering. This solution implies re-engineering of business processes as recommended in this report but supporting these processes through a much more limited and interim financial management system.
- Scenario 3: Deepening select reform activities. This scenario implies continuing the existing reform approach of optimizing business processes within each functional area and supporting these reforms with limited “ad-on” ICT systems modules.

The main cost driver is ICT support. Scenario one would be the most resource intensive and scenario three the least resource intensive. The benefits accruing from each scenario vary correspondingly.

1. Introduction

Development challenges and the PFM Reform Agenda

1. **Armenia has developed very fast over the past several years.** Its GDP grew on average by 11 percent per year between 2000 and 2008, and average income advanced from less than US\$500 in 1994 to close to US\$3,700 in 2008 before the country felt the full force of the global crisis. At the same time, overall poverty rates dropped significantly from over 50 percent of the population in the 1990s to less than 25 percent in 2008. Macro fiscal management prior to the crisis was prudent and stable.
2. **Armenia was relatively hard hit by the global financial crisis in 2009 with a GDP contraction of 14.4 % in 2009 but with an expected re-bounce to 3-5% growth in 2010.** Armenia entered the crisis with a debt to GDP ratio of around 15 % and nearly a balanced budget. In 2010, the public debt to GDP ratio is expected to reach 45 % and the projected budget deficit is about 5% of GDP – down from around 8% in 2009.

FIGURE 1. PUBLIC SPENDING, 2004-2009

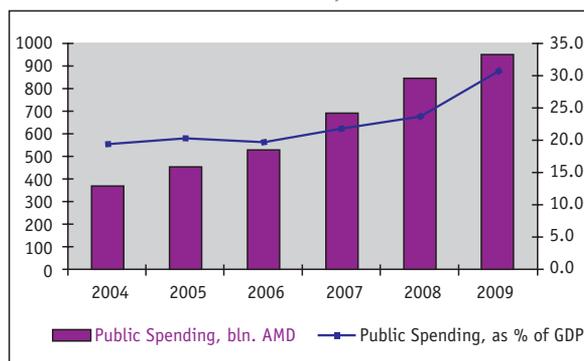


FIGURE 2. PUBLIC EXTERNAL DEBT, 2004-2009

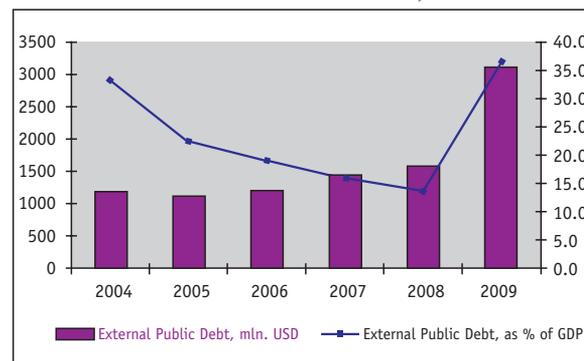


FIGURE 3. GDP AND INFLATION, 2004-2009

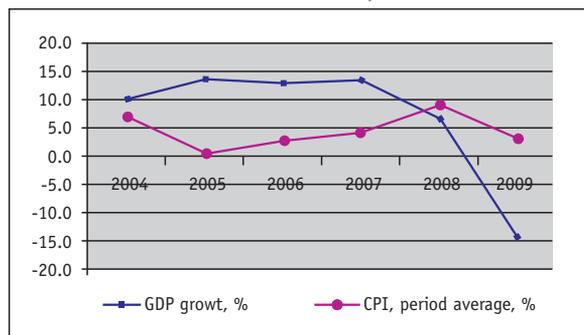
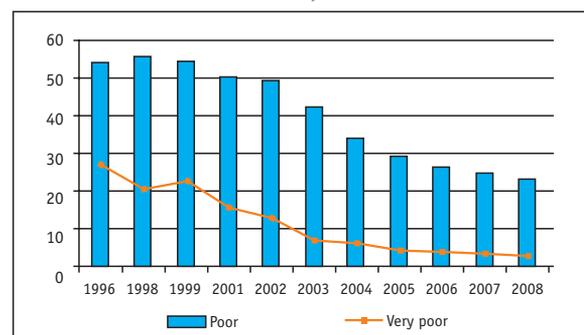


FIGURE 4. POVERTY RATE, 1996-2008



Sources: Figure 1 and 2: Ministry of Finance of Armenia, Budget Execution Reports. Figure 3 and 4: National Statistical Service of Armenia

3. **Key development challenges identified by the Armenian Government and approved in the long term policy document (in the Poverty Reduction Strategy Paper and later in the Sustainable Development Program) include continued reduction of poverty (including reducing regional disparities), enhancing human development (including through better healthcare and education), modernizing the public sector (including by reducing corruption and waste) and ensuring growth (through a more friendly and fair business environment and improved infrastructure).** Correspondingly, public spending increased by more than 20 percent annually from 2004 to 2008. However, public spending as a share of total economic activity (measured as a share of GDP) increased only by about 1 percentage point on average in the same period. To deliver on Armenians development goals, demands for public spending is likely to increase further in the years to come in an environment that is likely to be resource constrained. In addition to the need to reform the public provision healthcare services, introducing pension reform and improving financing mechanisms for education sector financing, the recent economic crisis exacerbated further the strained fiscal space with its socio-economic and poverty implications.
4. **Sound public financial management system is the key to achievement Armenia's development objectives.** As the role of the public sector in education, health and infrastructure increases, so does the importance of sound allocation of budgetary resources, efficient spending and continued prudent management of the overall resource

envelope. In addition, assurances against wasteful allocations and inappropriate use of public resources in the budget execution process increases in importance as the public share of the economy grows. With increasing debt levels and a challenging global environment, the ability to maintain sound macro fiscal policies, including managing the overall spending level, will be an important factor in creating an enabling business environment and thus ensuring economic growth. Debt management, previously of mostly theoretical interest in Armenia, has increased in real economic importance. Making the public sector more efficient and less corrupt is one of the key priorities for the Armenian Government. Sound policy-based allocation in the budget process, including professional public investment management, is a key tool to translating policy goals into poverty reduction and growth. Proper budget execution including internal and external controls as well as incentives for budget users to make the best use of scarce resources, are important tool in combating corruption and creating a public sector that delivers value to citizens. While the current public financial management systems by most accounts are “good enough” as documents in the recent PEFA self-assessment, they will not enable Armenia to deliver on the next generation of policy and public sector reform agenda. Improved public financial management is the necessary infrastructure for taking Armenia to its desired level of development.

The current state of financial management in Armenia

5. Armenia successfully undertook a number of reforms of its financial management systems 5-10 years ago and has subsequently refined the implementation of these initiatives. Consequently, the public financial management system in Armenia is currently functioning reasonably well as documented in a number of reviews including the 2008 Public Financial Management Performance Measurement (PEFA) self assessment undertaken by the Armenian Ministry of Finance.

BOX 1. SUMMARY OF THE PEFA SELF-ASSESSMENT FINDINGS

Budget credibility

The budget is realistic and is largely executed as planned.

Comprehensiveness and Transparency

Budget comprehensiveness has improved after inclusion of receipts and outlays of extrabudgetary accounts. The budget classification used in the Republic since 2000 conforms to the Government Finance Statistics (GFS) classification. Information on budget policies and macroeconomic forecasts is publicly available. Transfers to local governments are made according to procedures established in legal acts which are accessible for local governments. However, there are some problems with the oversight of overall fiscal risk from other public sector entities (state and community noncommercial organizations and companies).

Policy-Based Budgeting

Policies are reflected in long-term strategies and medium-term expenditure frameworks (MTEFs). Budget proposal preparation has a clear institutional basis and is carried out in accordance with legislative requirements. The current process of introducing program budgeting has promising prospects. Program budgeting itself would be enhanced by making sector strategies more complete and comprehensive.

Predictability and Control in Budget Execution

Taxpayer liabilities are largely comprehensive and clear, and the discretionary powers of the tax authorities are limited. The system for tax appeals by taxpayers is not based on independent administrative structures. Activities are underway to introduce risk-based audit plans. Reliable systems are in place for recording and managing cash balances, debt and guarantees, and predictability in the availability of funds for commitment of expenditures and organizing procurement.

Accounting, Recording, and Reporting

Reconciliation and accounting of budget accounts and reporting are under control and regulated. Daily reconciliation of the single Treasury account with the corresponding account in the central Treasury is performed at aggregate and detailed levels, as is also done for extrabudgetary accounts.

External Scrutiny and Audit

i) Reports from the Chamber of Control are submitted to the legislature. Audits comprise predominantly transaction-level testing. The Chamber of Control is not authorized to issue recommendations on the annual state budget execution report.
ii) Data presentation in reports follows classifications that conform to the budget. The reports are presented quarterly in a consistent format and are issued within 45 days of the end of period. There are some concerns over the accuracy of data for funds outside the Treasury system. However, overall, data issues do not significantly affect the accuracy of the statement.
iii) A consolidated Government statement is prepared annually. Information on revenue, expenditure, and bank account balances may not always be complete, but the omissions are not significant. The consolidated statement is submitted for external audit within five months of the end of the fiscal year.

6. **However, the Authorities recognize the potential improvements within each functional area and detailed implementation plans, pilots and specifications for systems development have been made in the areas of budget formulation, treasury operations, reporting, procurement and internal control.** In addition the Government has initiated the development of a comprehensive reform strategy to further strengthen its public financial management system. The strategy is intended to form the basis for stronger coordination and prioritization of various reform elements to ensure proper sequencing and coherence in changes across the financial management cycle. It is also intended to inform donors about the Government's reform priorities and to mobilize financial resources, including identification of investment needs that could be financed under the planned Public Financial Management investment loan by the World Bank. The finalization of the strategy is anchored in the Government's Annual Work Program for 2009 and supported through a prior action in the World Bank's second Development Policy Operation for Armenia due in May, 2010.

Government reform objectives

7. **The process for drafting a Government strategy for reforming the public financial management system was initiated in early 2009 and a first draft was available in yearly 2010.** Subsequent versions were developed in the first half of 2010. The July draft included i) aims and a vision to guide reforms in general and for each functional area in the budget process, ii) targets for reform area, iii) a section on sequencing of reforms, iv) a detailing of priorities for the first stage, v) outlines the organizational set-up for reform management, and vi) an action plan.

8. **The overall aim and vision of the Governments reform strategy is expressed as follows:**

“The purpose of the reforms is to increase the efficiency of public expenditure management thereby ensuring improved quality of policies and delivered services, specifically

- ensuring fiscal discipline which will contribute to macroeconomic stability and predictability of budget system;
- guaranteeing the linkage of funds with main policies and priorities through following up on strategic approaches;
- ensuring value for money and guaranteeing efficient, effective and economic use of funds;
- ensuring accountability in public spending.

The core vision of the reforms is: “*Centralized regulation - decentralized management*”. To accomplish this, public finance management system reforms should facilitate the establishment of a management culture which,

- on the one hand ensures centralized (harmonized) regulation of PFM-related procedures and on the other hand;
- grants powers to managers at all levels (decentralization), and they have obligation and accountability for optimal use of resources (managerial accountability and responsibility).

The aim of PFM reforms shall be ensuring a PFM system acting in accordance with the following principles in all levels of governance:

- managerial accountability and responsibility;
- availability of control;
- ongoing improvement of services delivered¹”.

9. **The notion of “centralized regulation/decentralized management” conveys an intention to clearly assign responsibility for using resources to achieve specified results to managers at different levels within the organization, to empower them to deliver those results effectively, but to do so within a strong framework of control defined and regulated by the centre through which managers will be held accountable.**

10. **Based on previous discussions between the Government and the Bank, the stages around which individual actions are sequenced in the revised strategy are as follows:**

- Stage 1 Complete work on basic systems and controls while beginning to build foundations for result oriented expenditure management
 - Integrate and modernize transaction related business processes with improved management and accounting information
 - Develop Program Structure linked to the Medium Term Expenditure Framework to deepen policy orientation of the budget
 - Selectively start to devolve budget authority, but based on readiness
 - Develop performance monitoring

¹ Draft Government Decree on Approving the Strategy for Reforming the Public Financial Management System, 07/07/2010.

- Stage 2: Increase managerial accountability for results.
Gradually shift control focus towards programs and results (full implementation of Program Based Budgeting)
Systematically devolve budget authority
- Stage 3: Increase emphasis on efficiency and effectiveness achieved.
Budget decisions informed by performance data
Monitoring and evaluation of budget execution based on well developed output and outcome indicators
Audits focused on Value for Money

11. **In the first stage, the focus would be on ensuring that a shift towards greater focus on management accountability can be managed both safely within adequate controls while making those controls more supportive/less disruptive to effective resource allocation and utilization.** The policy orientation of the budget formulation process would be further strengthened. During implementation management responsibilities at different levels for the management of resources would be clearly defined and reflected in control and information flow systems. Capacities would be built at both the professional public financial management and managerial level and management information systems supportive of decision making developed. In this way, impediments for managers not to participate in managing the resources made available to them actively and efficiently are gradually removed and the basis for accountability is established.
12. **In the second stage, once accountability is robustly enforced, more managerial flexibility is conveyed, and resources are applied more dynamically in changing circumstances.** Information is widely distributed and actual results achieved in relation to money spent made transparent at a number of levels. The control regime would be shifted from detailed input controls to a programmatic basis based on readiness of budget users to responsibly and effectively manage increased flexibility. New approaches to the audit function become both more important and relevant. Capacities are further deepened and clearer improvements in performance should start to become more visible from results oriented budget systems. Stage 2 requires Stage 1 to be largely in place in order to have the strong, but streamlined business processes, information systems and management responsibilities implemented as a basis for the strengthened accountability and flexibility.
13. **At the third stage, the accountability put in place in Stage 2 is used as a platform for looking more deeply into the effectiveness of programmatic resource management, undertaking active scrutiny and analysis of expenditure efficiency and effectiveness.** Decisions on budget funding would be informed by performance information tightly linked to government's medium term policies. Robust monitoring and evaluation processes would be in place supported by transparent and well defined performance indicators of efficiency and effectiveness. Assurances of efficiency and effectiveness would be provided through value for money and performance based audits.
14. **The following chapters of this report analyze budget formulation, budget execution and cross cutting issues with a view to identifying key challenges.** Against this background each review recommends phasing in terms of inclusion in each of the three stages. **The analysis and recommendations are based on the assumption that there are important dependencies and linkages of changes to the budget process with progress in other areas of the public financial management systems, namely the budget execution process and the system of internal control.**

Objective and approach of the report

15. **The objective of this paper is to provide practical recommendations for improving the effectiveness of the public financial management system as inputs to the envisaged Armenian PFM reform strategy.** The paper aims at providing a comprehensive analysis of most of the key elements of the financial management system thus supplementing existing analyses undertaken for each function in isolation. By doing so, the paper aims at contributing to the reaching of consensus among key stakeholders to public financial management and the financial management reform process in Armenia including within the Ministry of Finance, line ministries, elected officials, control agencies, the interested public and international partners.

- 16. The paper takes reform objectives for functional areas of the financial management system stated in draft versions of the public financial management reform strategy as a point of departure.** Taking the stated aims as a point of departure, the analysis examines the implications of the aims and their implementation and identifies gaps and steps to be taken.
- 17. The analysis and recommendations cover the following issues:** i) Budget formulation, including Macro-Fiscal Framework, Medium Term Expenditure Framework and program budgeting; ii) Budget execution, including treasury modernization, management information systems, accounting policy, reporting, and cash management, iii) Reform coordination and sequencing and iv) Capacity and ICT support issues. The areas of debt management, external control, parliamentary involvement in budget formulation and supervision of execution, procurement and corporate accounting are not included in the scope of the report. This is due to resource and time constraints.
- 18. Recommendations are categorized according to whether they are proposed to be included in stage 1, 2 or 3.** The activities indicated as stage one activities can proceed in parallel provided they are coordinated in content and implementation. The key constraining and dependent activity is that of the introduction of a Government Financial Management Information System. It is assumed in this report that a decision will be taken to implement such a system. If a decision is taken not to implement such a system, recommendations would change.
- 19. The report is structured as follows:** Chapter two provides a review of budget formulation processes. Chapter 3 assesses budget execution. Chapter 4 looks at capacity, organization and motivation and ICT support issues. Chapter 5 looks at reform scenarios, management and funding.

2. Budget formulation

2.1 Government objectives

20. Armenia has made progress in improving its budget process. Most notably, the introduction of a **Medium Term Expenditure Framework in the annual budget process through the amendment to the Budget System law in 2003** has established an institutional basis for reinforcing the policy focus of the budget process. Moreover, the Medium Term Expenditure Framework priorities are informed by the Government long term strategic plan, the **Poverty Reduction Strategy Paper**. This has strengthened top down budgeting, and broad allocations are increasingly aligned to expressed policy priorities.
21. The Government has recognized that the main challenge now pertains to linking the aggregate allocation process more closely to both the detailed budgeting process, which remains largely driven by input based line items and to the execution stage of the expenditure cycle. The public financial management strategy outlines a number of important priorities and initiatives the Government intends to undertake in this regard (see Box2 below).

Box 2. GOVERNMENT TARGETS IN THE AREAS OF FORECASTING MAIN MACRO ECONOMIC AND BUDGETARY INDICATORS AND STRATEGIC PLANNING, MEDIUM-TERM EXPENDITURE FRAMEWORKS AND THE NATIONAL BUDGE

Target related to main indicators:

“Macroeconomic projections as precise as possible, as well as enhancing the horizon of projections, which should be based on the ideology of fiscal discipline and which will not endanger macroeconomic stability.”

Target related to strategic planning, Medium term expenditure frameworks and the state budget

“To ensure the existence of the advanced form of budget planning (Program budgeting) that is accompanied by the setting of measurable objectives (which may be based upon ‘outputs’) and performance requirements for budget programs that will be directly linked to the main policies and priorities.”

Source: Draft Government Decree on Approving the Strategy for Reforming the Public Financial Management System. July 2010.

2.2 Analysis of Present Situation

2.2.1 The Legal Framework

22. The basic legal framework regulating the budget process has been in place for more than a decade. The constitution defines the separation of powers and enshrines the right of national assembly to approve the annual budget law while the law on the rules and procedures of the National Assembly specifies the framework for the legislative deliberation of the annual budget law and its adoption. **The Budget System Law, which was first enacted in 1997, serves as the organic budget law and broadly describes the budget preparation process and responsibilities of the various players involved. There have been numerous amendments to the budget system law since its enactment to reflect ongoing reforms to budget process. The most important was the inclusion in 2003 of provisions to make the Medium Term Expenditure Framework a mandatory component of the annual budget process. In addition, the debt management law which was adopted in 2008 contains elements of a fiscal responsibility law and as such affects fiscal policy and budgetary management.**
23. Armenia has a well structured budget process. The budget process is divided into two stages: i) preparation of the Medium Term Expenditure Framework, containing the macro-fiscal framework, aggregate resource envelop and key fiscal policy priorities and ii) the detailed budget preparation process. While the budget system law itself does not provide for a detailed budget calendar it requires annual issuance of a Prime Minister Decree on the Commencement of the budget preparation process which contains a detailed timetable. The budget process typically begins about 9 months before the new fiscal year begins and includes repeated interactions between the Ministry of Finance, line ministries, and the parliament culminating in the adoption of the annual budget law in December of the presiding year (Table 1). The strength of the current budget process is also indicated by the relevant

PEFA indicator (PI1) where Armenia received the highest possible score (A).

TABLE 1. BUDGET FORMULATION PROCESS

Steps	Period	Description
1. Preparation of the Macro-Fiscal Framework	January	The overall macro fiscal framework and fiscal priorities are prepared by Ministry of Finance
2. Preparation and circulation of Medium Term Expenditure Framework instructions	January	Preparation of top down functional allocations
3. Preparation of Sectoral Medium Term Expenditure Framework	April-June ¹	The sectoral Medium Term Expenditure Frameworks are prepared by ministries and state agencies with guidance from Ministry of Finance
4. Adoption of Medium Term Expenditure Framework	June 20 ¹	The Medium Term Expenditure Framework is adopted by Cabinet decision and submitted to the National Assembly for information purposes only.
5. Publication of Medium Term Expenditure Framework	July 1 ¹	
6. Issuance of Budget Circular by Ministry of Finance	July-August ¹	The budget circular includes instructions for the preparation of detailed budget proposals and budget ceilings.
7. Appraisal of budget submissions, Consolidation and Cabinet approval	October-November	The budget department appraises the submissions followed by hearings of the Budget Committee with the ministries. The Ministry of Finance consolidates the budget document. The Cabinet in consultation with the Budget Committee approves it, including the final budget ceilings.
8. Deliberation in Parliament	December	The Parliamentary budget commission and then plenary session deliberate, amend and enact the executive budget proposal
9. Enactment	December	The Assembly deliberates and approves the budget.

Note: 1) These dates are specified by Law. Other dates are specified annually in the Prime Minister Decree on the Commencement of the budget preparation process typically issued in the 1st quarter of the presiding fiscal year.

2.2.2 The Medium Term Expenditure Framework

24. The annual budget process in Armenia is integrated in a Medium Term Expenditure Framework which serves as the strategic phase in the budget allocation process. Armenia initiated Medium Term Expenditure Framework reforms in the late 1990s and the first formal framework was prepared in 2002. At first, the framework was introduced in parallel to the annual budget but then since the amendment of the budget system law in 2003, as an integral part of the annual budget process. The primary purpose of the Medium Term Expenditure Framework is to outline the macroeconomic framework, and core fiscal policies and priorities which are informed by the country's Poverty Reduction Strategy Paper. The Medium Term Expenditure Framework establishes priorities and expenditure envelopes, and forward estimates of expenditures on a functional basis projecting the impact of current expenditure decisions over a three year period. The Medium Term Expenditure Framework can be divided into two main parts:

- Macro-Fiscal Framework which is aimed at maintaining fiscal discipline. The Macro-Fiscal Framework provides clarity about the overall resource envelop consistent with fiscal policy objectives, e.g. economic growth, debt sustainability, countercyclical fiscal policy, intergenerational equity that is available for budgetary allocations
- Medium Term Expenditure Framework which aims to support strategic expenditure allocation. The Medium Term Expenditure Framework is prepared on a functional basis outlining sector strategies, objectives and indicative funding requirements.

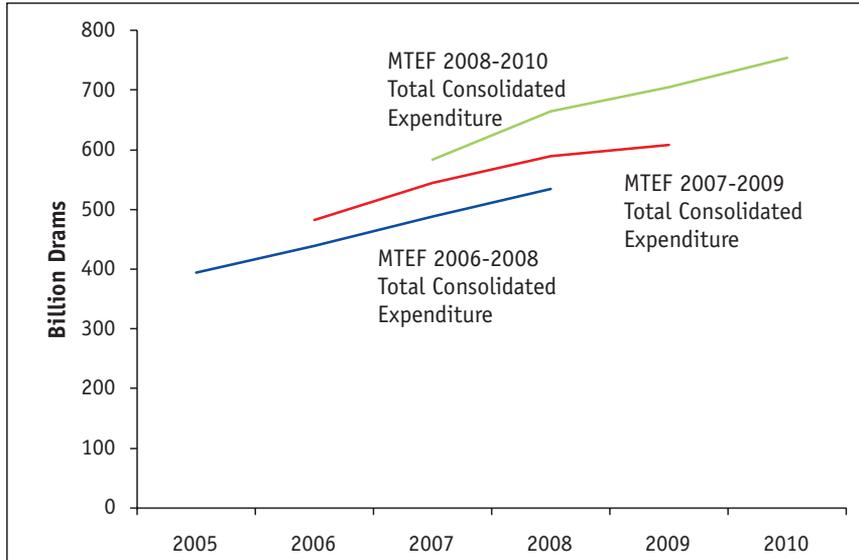
Macro-Fiscal Framework

25. Armenia has built institutional foundations for macro-fiscal discipline, putting it in a good position to manage the recent crisis. During the years of strong economic growth consistently low deficit levels helped consolidate public finances and achieve a substantial reduction of public debt. Consequently, Armenia entered the crisis with low level of public debt, about 16 percent of GDP in 2008, providing scope for fiscal expansion to help cushion the economic downturn caused by the global economic crisis. However, going forward significant fiscal adjustment will be needed to help preserve investor confidence and restore

access to international capital markets ahead of the large repayment obligations due in 2012. This will put renewed pressure on the institutional framework for macro-fiscal management and policy.

26. **The main underlying macroeconomic assumptions, including real economic growth, inflation, interest and exchange rates are clearly presented and discussed in the Medium Term Expenditure Framework document.** The macro-fiscal framework is built on forecasts of state revenues and a deficit target and thereby establishes the overall resource envelope available for budgetary expenditures. Ministry of Finance currently uses the IMF financial programming framework to produce a consistent set of forecasts of the key macro-economic variables, including the fiscal aggregates (revenue, expenditure and deficit). Revenues are projected from GDP estimates and the result is compared to projections of individual tax and nontax revenues with inputs from the state revenue agency. There are plans to introduce more sophisticated modeling techniques, namely a dynamic General Equilibrium model of the Armenian economy, but these are not yet operational. The final responsibility for all technical assumptions to be used in preparing the Medium Term Expenditure Framework and the annual budget rests with the Ministry of Finance with input from the Central Bank. Within the Ministry of Finance the first estimates are prepared by the Macro Economic Policy Unit which subsequently revised by the Budget Department which runs its own revenue estimation model. The framework is typically calibrated against IMF and World Bank benchmarks.
27. **Estimates were usually conservative prior to the onset of the crisis, but downward revisions were warranted in the current economic environment.** Previous Medium Term Expenditure Frameworks were based on conservative estimates of revenue and expenditure aggregates (see figure 1). The conservative bias of past estimates was due primarily due to underestimation of GDP growth during the economic boom period. There are no automatic corrections/safety margins built into the modeling framework. Indeed as the economy moved into recession, downward revisions to the macro-fiscal framework, namely the GDP growth estimate were warranted. In view of the uncertainties in the macro-economic outlook, the Government decided to suspend the Medium Term Expenditure Framework process for the fiscal year 2009 budget. However, for fiscal year 2010 the regular practice is being resumed.

FIGURE 5. COMPARING AGGREGATE EXPENDITURE ESTIMATES



Source: Armenia MTEFs, Various years.

28. **Institutionally, the macro-fiscal framework is anchored by a set of fiscal rules intended to create a binding commitment to macro-fiscal discipline and sustainability, but the rules were too rigid to accommodate the counter-cyclical fiscal policy response to the crisis.** Both the budget system law and the recently passed debt management law specify a number of fiscal rules. The Budget Law sets a 5 percent ceiling on the permissible annual budget deficit. The debt management law, passed in 2008, establishes an overall constraint on public debt at 60 percent of GDP and additional limitation on the annual budget balance when debt is above 50 percent of GDP. As adherence to the deficit rule would have reinforced a pro-cyclical fiscal policy, the Government chose to ease its fiscal stance despite the large drop in tax revenues. As a result, the fiscal deficit widened to 7.5 percent of GDP in 2009 (explicitly exceeding the deficit limit set in the budget system law), financed through external sources.

29. **Some aspects of the current macro-fiscal analysis and forecasting could be improved.** The Medium Term Fiscal Framework could do more than present the aggregate resource envelope for overall government expenditure. It could also place the fiscal stance in a framework that is linked to a broader set of macro-economic policy objectives, including growth, preserving macro-stability and external balance. This would pertain to a more in-depth analysis of fiscal policy issues in the context of its effect on aggregate demand and supply, as a basis for providing advice on the design of fiscal policy. The recent crisis has once again brought countercyclical macro-fiscal policy and stabilization to the centre stage, in particular since effectiveness of monetary policy is limited due the pegged exchange rate.
30. **In addition, the Medium Term Fiscal Framework could further expand on the analysis of fiscal risks.** While the current document contains a chapter on fiscal risks this does not appear to be based on a rigorous analysis. For example, the current volatility of the macro-environment would make erroneous assumptions a major source of fiscal risk but no analysis of the sensitivity of the projections to changes in macroeconomic variables is being presented. The Ministry of Finance is aware of these shortcomings and is taking steps to improve the situation. As part of the draft strategy, it is planned to present a sensitivity analysis for macroeconomic indicators and their implications for budget policy.

BOX 3. NEW ZEALAND'S APPROACH TO FISCAL RISK DISCLOSURE AND MANAGEMENT

A series of reforms has forged New Zealand's approach to fiscal risk disclosure and management. The public financial management reforms of the 1980s created a legal framework assigning accountability for the different dimensions of fiscal risk disclosure and management. With the introduction of accrual accounting in the Public Finance Act (PFA) of 1989 and the adoption in 1993 of Generally Accepted Accounting Practice (GAAP) for budgeting and reporting, the coverage of fiscal statistics was broadened to include all assets and liabilities, including contingent liabilities. The emphasis on transparency in the conduct of government affairs culminated with the introduction of the Fiscal Responsibility Act (FRA) of 1994 and its subsequent incorporation (with some extensions) in the PFA. These acts require the government to reduce the debt to prudent levels by running operating surpluses, and then maintain the debt at prudent levels; pursue policies that are consistent with a reasonable degree of predictability about the level and stability of tax rates for future years; and prudently manage the fiscal risks facing the state.

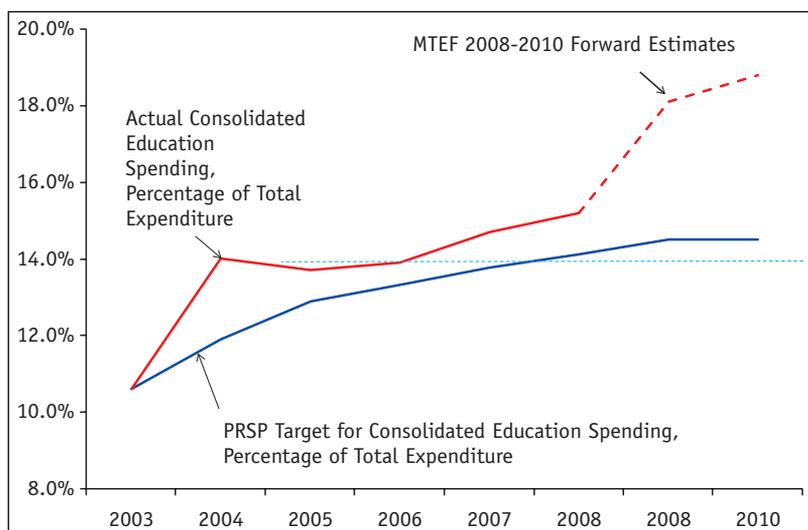
Key features of New Zealand's fiscal risk disclosure and management framework include:

- official macroeconomic forecasts underlying the budget are reviewed before finalization by an external panel of experts and full alternative macroeconomic scenarios are included in the budget documents;
- the budget includes a full set of independent tax forecasts by the Inland Revenue Department (IRD), with a discussion of the reasons for any differences between the IRD and official (treasury) forecasts;
- fiscal forecasts in the annual budget include indicative amounts for new operating and capital initiatives in the second and third years, linked to the specific fiscal risks disclosed in the budget;
- within-year spending pressures are accommodated by (i) sectoral/departmental contingency appropriations (to meet likely and known cost pressures whose amounts are still subject to uncertainty at the time the budget is being finalized), or (ii) a general contingency (of NZ\$200 million, equivalent to 0.4 percent of expenditures, in the last few years) that is not appropriated at the time of the budget and functions more as a monitoring mechanism than a firm cap (the Treasury prepares monthly progress reports on decisions against this sum, and required funds are then appropriated in the May supplementary estimates);
- contingent liabilities are managed by the relevant department and monitored by the treasury; policy initiatives that involve contingent liabilities are subject to scrutiny;
- the treasury operates a centralized system for monitoring and reporting on fiscal risks, called "Inspect a Risk," which gathers information from discussions with departments and Crown entities, the register of contingent liabilities maintained by departments, and minutes of meetings of cabinet and cabinet committees; "Inspect a Risk" is then used by the fiscal reporting division of the treasury to generate the Statement of Specific Risks;
- the government has established financial asset portfolios to match the risk characteristics of specific liabilities. One example is a fund managed by the earthquake commission;
- State owned enterprises report directly to shareholding ministers each quarter, and the performance of each of them is monitored by the treasury, which provides ministers with a quarterly report on performance. State owned enterprises borrow without government guarantee (with one, historical, exception);
- the debt management office, a unit within the treasury, has responsibility for aggregating information on assets and liabilities across the government, and for managing risks to the government's overall balance sheet

Medium Term Expenditure Framework

- 31. The Armenian Medium Term Expenditure Framework is an impressive document and the underlying policy process is well institutionalized.** While the Ministry of Finance provides extensive technical input, the Medium Term Expenditure Framework process is anchored at the highest political level. Aggregate allocations are decided by the Medium Term Expenditure Framework Steering Committee which is chaired by the Prime Minister and attended by Ministers from key ministries. This is aimed at ensuring that the Medium Term Expenditure Framework becomes more than a paper exercise but a genuine decision making process that addresses key allocative trade offs. Again the quality of the MTEF process is confirmed by the related PEFA indicator (PI12) for which Armenia received a B
- 32. Once the aggregate resource envelope is established, more detailed forward estimates are prepared at the functional level.** These allocations, that are prepared by the Ministry of Finance Expenditure Policy Department, are at least broadly driven by the spending targets set in the Poverty Reduction Strategy Paper (see Box 4 below). These allocations are authorized by the Medium Term Expenditure Framework steering committee which is chaired by the Prime Minister. Once decided the sectoral ceiling provide the basis for preparation of strategic plans by the line ministries.

BOX 4. LINKING THE POVERTY REDUCTION STRATEGY PAPER, MEDIUM TERM EXPENDITURE FRAMEWORK AND BUDGET PROC



Armenia's first Poverty Reduction Strategy Paper was adopted in 2003 around the same time the Medium Term Expenditure Framework process was formally introduced into the annual budget process. The Poverty Reduction Strategy Paper articulated the long term strategic priorities of the Government, while the Medium Term Expenditure Framework process established a strategic stage in the budget process thereby providing an entry point for these priorities to guide resource allocations. Unlike other Poverty Reduction Strategy Papers the Armenian Poverty Reduction Strategy Paper is anchored in the reality of resource constraints. The Poverty Reduction Strategy Paper has a robust chapter on Macro-Economic Policy and is based on medium projections of the available fiscal envelop. It also provides notional allocations based on a functional classification, easing the linkages with actual budgetary policy. Recent experience shows that while overall expenditure to GDP ratio remained below the planned levels (due to underperformance in revenue collection), expenditure prioritization within the expenditure envelop available during the annual budget process has been broadly consistent with the notional allocations in Poverty Reduction Strategy Paper. The Poverty Reduction Strategy Paper is being updated on an annual basis in the form of the sustainable development plan.

A recent institutional change moved the responsibility for the Sustainable Development Plan to the Ministry of Economy. With the planning function located outside the Ministry of Finance, it is important that alignment of the sequencing of the planning and budgeting processes is maintained. In this context, it is also worth noting that the most recent installment of the sustainable development plan has not been finalized to inform the 2010-2013 Medium Term Expenditure Framework.

Assessment

- 33. The Medium Term Expenditure Framework provides expenditure information at an aggregate level allowing decision making to focus on broad intersectoral trade offs in expenditure prioritization.** The Medium Term Expenditure Framework is structured around functional areas with each functional chapter providing further breaks down of spending into sub-functions. For some functions, further breakdowns into capital and recurrent expenditures is given. These figures are provided for the previous fiscal year, the current fiscal year and three out-years. The level of aggregation is appropriate for the strategic phase of the budget process as it allows decision makers to focus on broad inter-sectoral trade-offs in expenditure prioritization. Most major sectors, both in terms of budgetary allocation and importance of service outcome, like education, health and public works, have reasonably well articulated strategies that are reflected in the related Medium Term Expenditure Framework chapters but low compliance is an issue in several other sectors indicative of capacity constraints in these sectors.
- 34. The functional classification provides a link to the budget, but the detailed line item based annual budget process does not lend itself to translating the policy based Medium Term Expenditure Framework allocations into results oriented operational budgets.** The Medium Term Expenditure Framework document provides a good discussion of Government priorities, but measurable indicators and operational strategies to achieve these objectives are missing given the high level policy focus of the process. The detailed budget phase would in principle further translate Government priorities and allocations into operational budgets but there is a structural break between the aggregate discussions during the Medium Term Expenditure Framework process and the way the budget is prepared and implemented. While the Medium Term Expenditure Framework phase is informed by policy priorities the detailed budget process is driven primarily by detailed line item budgets and as such does currently not provide an adequate interface to further cascade policy based allocations in a manner that would facilitate result oriented budgets. Budget deliberations during the detailed budget process focus on costing of inputs and required funding levels for capital, wages and operating expenses as opposed to policy or program objectives and strategies to achieve them. Further, once the budget is approved it is executed and controlled on the basis of these inputs. The focus on policy objectives that is driving the allocations during the MTEF is thus substantially weakened during the detailed budget preparation and execution stages. The potential benefits of the strong policy oriented top down allocations enshrined in the MTEF process would increase in an environment where operational budgets could be more easily linked to policy objectives, and would systematically provide information on program results that further operationalize policy objectives laid out in the MTEF document. This issue will be discussed in more detail below in the sections on the detailed budget process and on the ongoing program budgeting reforms.
- 35. Armenia's Medium Term Expenditure Framework is in principle construed around baseline estimates and new initiatives; but this is not consistently applied across all sectors and neither the MTEF nor the detailed budget process is focused on prioritizing new initiatives.** The Medium Term Expenditure Framework methodological instructions explicitly require budget users to identify baseline spending needed to implement existing programs and costs of new initiatives. Some of the chapters in the Medium Term Expenditure Framework do identify major policy initiatives and cost drivers but this is not a consistent feature across all sectors. Perhaps more importantly, the separate presentation of baseline funding and new initiatives has yet to translate into a process by which available fiscal space is allocated in a prioritized manner to new initiatives. For most parts, the MTEF process is about aggregate ceilings allocated across functions, and there seems to be little discussion about proposed new initiatives.
- 36. Further articulation of baseline expenditure and new initiatives could strengthen the expenditure prioritization impact of the Medium Term Expenditure Framework.** The distinction is an important one. Budgetary decision making is usually focused on whether to increase or reduce program expenditures rather than on whether to abolish programs altogether as some parts of the expenditure program are relatively fixed due to administrative inertia that inhibit major reallocation at least in the short run. By extending the time horizon of the budget process and by focusing strategic expenditure choices to new initiatives Medium Term Expenditure Frameworks can have important benefits in terms of reprioritization of expenditures at the margin. For this to work effectively, the separate presentation of baseline funding and new initiatives has to be accompanied by a decision making process that allocates available funding to new initiatives. For example, Chile -after determining expected revenue and baseline funding requirements- allocated the available fiscal space to a bidding fund for which line ministries submitted prioritized bids to fund new

initiatives that were then reconciled with Government priorities. Canada operates a similar system. There new funding proposals are presented directly by Ministers to Cabinet Committees which discuss the merits of these proposals and rank them for possible funding.

37. **In addition, periodic baseline reviews and/or efficiency dividends can help identify savings that can be reallocated to priority programs.** While Medium Term Expenditure Frameworks are principally based on marginal budgeting principles, as discussed in the previous paragraph, it is important to incentivize efficiency and cost savings. Many countries, including Singapore, Australia, South Africa and others, have built-in annual reductions in the operating budget consumed for the same level of output. These so called efficiency dividends are either set at a flat level or can be determined in response to measured private sector productivity growth. This method relies on budget users to internalize these reductions flexibly leveraging on their superior understanding of their own operations. Alternatively, countries conduct periodic baseline reviews of selected ministries and/or spending programs. These are often led by the Ministry of Finance and aim to identify saving options and efficiency gains that can be used to reduce allocations and free up fiscal space for priority programs. Some countries have made regular selected reviews part of their regular budget procedures, where programs, including baseline allocations- are thoroughly reviewed once every few years. The choice between these instruments-efficiency dividend or periodic baseline review- should be driven by an assessment of the financial management capacity of budget users with efficiency dividends typically requiring great capacity to actively manage resource allocations within the organization. Given the current stage of development of Armenia's PFM systems and the magnitude of the challenges to be addressed, there may be a case for the using more centralized reviews as opposed to the efficiency dividends, which seems more suitable for countries with at a more advanced stage of development in PFM systems.

2.2.3 The Budget Preparation Process

38. **The detailed budget process starts in July after the Medium Term Expenditure Framework has been adopted.** The process is guided by a budget circular issued by the Ministry of Finance, containing ceilings by Ministry and instructions on the submission of budget requests. The ceilings are based on earlier Medium Term Expenditure Framework allocations and the circular explicitly requires annual submissions to be prepared in the context of the Medium Term Expenditure Framework priorities.
39. **Budget users prepare their requests based on costing norms for inputs and building up on allocations of previous years in an incremental manner.** The core of the budget submissions is constituted by a line item budget at the level of detailed economic classification and aggregate functional consolidation. They also contain quarterly break-downs of cash requirements which are binding during implementation.

BOX 5. TYPICAL FUNCTIONAL SPECIFICATIONS OF GFMS BUDGET MODULES

Implementation of GFMS enables important improvements to budget preparation procedures. GFMS budget preparation modules are typically configured to support inter alia the following functions:

1. Multi-dimensional/ multiyear budget frameworks
2. Flexible modeling capabilities based on user defined business rules, the specifications can provide for capabilities for forecasting techniques and sensitivity analysis
3. Automated workflow for top down transmission of annual and multi-year budget ceilings at different levels of consolidation and approval processed through the module
4. Automated workflow for bottom up transmission of budget bids
5. Capturing, storing and reporting of budgetary data at different user defined consolidation levels and classification dimensions
6. Capturing, storing and reporting of narrative and non-financial performance information at different user defined consolidation levels and classification dimensions
7. Seamless information transmission of budgetary data to the treasury general ledger

Source: Bank Staff.

40. **The non- financial information in the budget bids is not yet being put to full use during the budget deliberations.** While there are statements linking budget submissions to the Medium Term Expenditure Framework priorities these are largely recaps of the Medium Term Expenditure Framework strategies. There are requests for submission of non-financial indicators in conjunction with the annual budget submission but these are not being used systematically in the budget dialogue. The type of information that could

be included would relate to the outputs and outcome indented by the funding programs. For example, road construction programs should specify the intended length of road being constructed as well as possibly economic benefits to be derived, including reductions in travel time, transportation costs etc. For education indicators could include class size, physical condition indicators for class rooms as well as learning outcomes measured by examination results. More important than the mere submission of these indicators is the active use of this information in the evaluation of the budget bids submitted by line ministries. In practice –as in many other countries that have moved to more result oriented budget systems- the impact of performance information on resource allocation remains reportedly limited while discussions on inputs and funding levels continue to dominate budget deliberations. Further, it is important to complement the incorporation of performance information during the upstream budget preparation with downstream performance reporting, and robust monitoring and evaluation systems that periodically assess program performance.

41. **The link between budgets and the organizational structure is not as clear as would be required for a well structured system of budget authority management.** The current submissions are structured around functional and economic classification and it is difficult to attribute budget allocations to organizational entities at the sub-ministry level. This has important consequences for budgetary accountability and the way the budget is released and controlled during execution. Typically, budget allocations are released to primary budget users (ministries and agencies). The budget users apportion budgets to administrative cost centers that retain responsibility for executing the budget within the legally binding budgetary provisions.
42. **The current budget formulation process has a strategic focus at the aggregate allocation level, but policy and result focus could be strengthened at the detailed budget review stage.** The Ministry of Finance’s role in reviewing and assessing budget submissions is hampered by insufficient technical capacity to challenge line ministries, and limitations in the information submitted, including the lack of feasibility studies for investment projects. As a result, budget deliberations at the detailed budgeting stage tends to focus more on negotiating inputs and ceilings rather than discussing the content and strategic orientation of the budget submissions with regard to achieving policy objectives outlined in the Medium Term Expenditure Framework.

BOX 6. BUDGET TRANSPARENCY IN ARMENIA AND OECD BEST PRACTICE GUIDELINES

Transparency – the timely and comprehensive disclosure of all relevant fiscal information in the budget documents and financial reports - is a key element of sound public financial management.

Armenia scored ‘A’ in the PEFA PI 6 indicating that the country’s current budget documentation already complies with basic transparency requirements. Further advances in the PFM agenda, discussed in this report, could be accompanied with commensurate improvements in budget transparency. The Organization for Economic Cooperation and Development has established a set of principles capturing practices of countries at forefront of budget transparency that could guide these improvements (<http://www.oecd.org/dataoecd/33/13/1905258.pdf>).

Best practice countries publish a comprehensive set of budget documents and reports, including Pre-Budget reports, the budget, monthly reports, mid year reports, year end report, pre-election reports and long term sustainable report. Each of these documents contains specific disclosures intended to allow for a detailed assessment of the Government’s long term financial position.

Armenia’s budget documents, especially the MTEF document already comply with many of the principles, including disclosure of macro-economic assumptions, detailed elaboration of revenue policies and expenditure programs, including both financial and non-financial information. Other requirements are not yet at the level of best practice. Most importantly, Armenia’s budget documentation does not provide information on Government assets (financial and physical) and liabilities, tax expenditures, fiscal risks, long term pension obligations, contingent liabilities. Equally, publication of timely financial reports is lagging behind best practice.

OECD Best Practice Guidelines	Current Practice in Armenia
Pre- Budget Report , incl. government’s long-term economic and fiscal policy objectives and the government’s economic and fiscal policy intentions for the forthcoming budget and, at least, the following two fiscal years. It should highlight the total level of revenue, expenditure, deficit or surplus, and debt.	Armenia does not issue a pre-budget report, but prepares the MTEF document that meets most of the information requirements.

OECD Best Practice Guidelines	Current Practice in Armenia
Comprehensive Budget Document , incl. macro-economic financial and non financial data, detailed commentary on revenue and expenditure policies, asset and liabilities, fiscal risk analysis	The MTEF document, which is part of the formal budget documentation submitted to Parliament provides much of the specific disclosure items. Also the package of the draft Annual Budget Law consists of a) the Government's Budget Message which describes the macro-economic, trade, financial and other projections of the policy environment, b) Explanatory Notes, which provides details and assumptions behind the revenue, expenditure and debt projections and c) draft Annual Budget with attachments of public expenditures in different classifications and formats. The package of the draft Annual Budget Law is posted on the Government's website after the government approves it and is published in the official gazette 3 days after submission to Parliament. However, information on fiscal risks, assets and liabilities is incomplete
Monthly reports , incl. information on budget execution data classified by major administrative, economic and program items accompanied with short commentary explaining major divergences. These reports should be issued no later than one month after the reporting period.	Armenia issues timely monthly execution reports, which provides numerical information as well as analytical narratives. In addition to being published on the official web-site this information is published in the "Republic of Armenia" official gazette.
Mid-year report , incl. comprehensive update on the implementation of the budget, including an updated set of macroeconomic assumptions and medium term expenditure and revenue forecasts, and assets and liabilities. The report should be released within six weeks of the end of the mid-year period	Armenia issues a periodic mid year budget execution report, but if the policy environment is stable it does not provide comprehensive update of macro-economic assumptions. However, assumptions could be updated as part of mid-year budget rectifications that may occur in light of changes in the macro-economic environment (for example, 2009 budget revisions by the government).
Annual report which serves as the key accountability document and is audited to the supreme audit institution. The report should show compliance with the level of revenue and expenditures authorized by Parliament in the budget. Any in-year adjustments to the original budget should be shown separately. The presentation format of the year-end report should mirror the presentation format of the budget and should include non-financial performance information, including a comparison of performance targets and actual results achieved where practicable.	Armenia does issue an annual report that is audited by the control chamber. The report mostly contains financial budget execution data. Although the government collects non-financial information on budget execution, it is not included in the government's Budget Execution Report submitted to the Parliament and thus is missing, as a systematic comparison of deviation that have occurred in comparison to the originally approved budget. While the control chamber is auditing the report and submitting its opinion to the Parliament on budget execution compliance with the approved Budget Law, it does not issue a formal financial audit opinion.
Pre-election report , essentially containing the same information as the mid year report, the pre-election report serves to illuminate the general state of government finances immediately before an election. This fosters a more informed electorate and serves to stimulate public debate.	Armenia does not issue a pre-election report.
Long-term fiscal sustainability report , assessing the long-term sustainability of current government policies. It should be released at least every five years, or when major changes are made in substantive revenue or expenditure programs. The report should assess the budgetary implications of demographic change, such as population ageing and other potential developments over the long-term (10-40 years).	Armenia does not issue a long term fiscal sustainability report. Armenia does periodically provide information on long term debt sustainability in the context of the MTEF document and Debt Management Strategy (since 2010).

Source: Bank Staff.

2.2.4 Appropriation Structure

43. **The budget system law is somewhat unclear on the basis and degree of detail for spending approval required by the parliament.** The articles of the annual budget law do approve the budget only based on 11 functions and 79 sub-functions (consistent with the Classification of the Functions of Government) and aggregate economic classification. The administrative appropriation which is key for budget accountability is missing from the main articles of the annual budget law. In addition, the budget law contains an annex with very detailed information broken down by economic line items, location, and administrative heads. The budget system law does not specify whether these annexes serve mere informational purposes or whether they establish legally binding expenditure limits. The current practice confers to the latter providing for an overly detailed appropriation structure.

- 44. As part of the program budget reform, discussed in more detail below, the Government intends to clarify the appropriation structure.** The draft amendment of the budget system law stipulates an appropriation structure that approves broad bands of expenditures, with further details being contained in budget implementation documents which provide the basis for control during budget implementation.

BOX 7. THE MULTIPLE USES OF PROGRAM STRUCTURES

Programs can support several expenditure management functions. The use of program classifications typically pertains to all or some of the following functions:

1. The program structure is used in allocative decision making. This requires budget users to submit their budget requests in a programmatic format and funding decisions to be taken on the basis of whether to increase or decrease program output at the margin.
2. Programs are used as the basis for costing expenditures. This requires that programs and activities provide a framework for organizing cost information.
3. Programs are the basis for legislative approval and appropriation. While budget documents submitted to Parliament typically contain presentations of expenditure in different classifications, this requires that legally expenditure limits are set at the program level.
4. Programs are used as a framework for managerial performance accountability. This requires a detailed classification of programs that is broadly aligned to the organizational and operational structure in which programs are being implemented.
5. Programs are used as a basis for regular evaluations. This requires that the performance information directly contained in program documents is complemented with evaluations that use programs (as opposed to organization or policies) as the unit of analysis.

If applied consistently across the budget cycle, program structures can provide a framework for the logical and informational integration of the budget cycle facilitating mutual consistency of the planning, budgeting, reporting and evaluation documents that underscore budgetary decision making and control. In few countries, however, program structures do not serve all these functions equally well at the same time. In the US for example, while the budget submission is program based, Congress refused to change the appropriation structure to programs and continued to appropriate based on line items and organization. As a result to this date, the program based budget formulation and the allocations of resources through appropriations are structured fundamentally differently and it is difficult to link the two.

Source: Bank Staff.

2.3 Ongoing Reform Initiatives

- 45. As discussed above, the current budget structure has had limited effectiveness in linking the strategic expenditure management intended by the Medium Term Expenditure Framework to the detailed budget preparation process and to execution.** To overcome these limitations, a new programmatic structure is being developed with a view to provide a streamlined classification that would facilitate strategic expenditure prioritization. The current Government plan is to introduce program based appropriations for the fiscal year 2012.
- 46. Extensive preparatory work has been undertaken, in terms of developing a program structure and related objectives and indicators in the context of line ministry operations.** This work was carried out with significant participation of line ministries and heavy support by external consultants. In addition, an amendment to the budget system law has been developed and is –at least informally- deliberated with the parliament to promulgate the legal changes necessary to move to program based appropriations. Intensive support has been provided to 7 pilot ministries representing about 60 % of total expenditure. Programs are developed bottom up within ministries. This has resulted in a program structure that is largely reflective of the current administrative structure. There are no programs that cut across ministries. This has clear advantages in terms of using programs for management purposes but organizing programs within existing Ministerial boundaries may reduce the link political objectives and/or require the sort of administrative reorganizations witnessed in the UK since 1997 which would be very difficult in Armenia which has less flexible organizational arrangements.

Box 8. PROGRAM BUDGETING IN THE HEALTH SECTOR

Armenia initiated full-scale reforms of the health sector in 1997. Major components of the reform program covered institutional restructuring, transformation of the financial mechanisms and re-organization of the public service provision.

- A key element was a new mechanism for health services provision through a “State Order System” which later became known as Basic Benefit Package (BBP). Ambulatory/polyclinic and hospitals services form main elements of the BBP which is a guaranteed list of programs subject for funding from the state budget. The BBP defines the reimbursement rate for service providers, the payment system and the reporting requirements.
- Another element was a transformation of health care providers from budgetary institutions to state enterprises and (in 2000) to joint stock companies with the majority of shares owned to the state. In addition to addressing governance issues, this aimed at diversifying financing sources for health care institutions to top state budget allocations.
- Related, the policy and supervision functions were separated from the health care services allocation and financial management functions. The State Health Agency (SHA) was created as a semi-independent structure outside the Ministry of Health* which became responsible for signing contracts with service providers included in the state orders (state health programs), allocating funds, paying providers and supervising their activities. Creation of the SHA aimed at improving the efficiency of sectoral expenditures by assigning a strategic purchaser of health care which is responsible for contracting taking into account facilities’ performance and quality services provision. At present SHA allocates the State Order and has contracts for the provision of free-of-charge services to the population with public hospitals as well as with private facilities.

The main objective of reforming the sector’s financing mechanism was to make a shift from allocation of public expenditure on the basis of number of inputs (health personnel and number of hospital beds) to a new system which is based on a number of outputs (number of services rendered by the facility, number of beneficiaries, etc). In addition to the financial monitoring, this approach requires reporting/collection and monitoring of non-financial indicators for each program. Usually the actual data on non-financial parameters of the program for the previous year serves the basis for the planning of the next year’s budget. It is then adjusted based on projections for demographic developments, social trends and other parameters. To guide the initial planning and budgeting of public healthcare services the Ministry of Finance produces ceilings/caps for all programs which form the basis for discussions on sectoral budget allocation. Financing/reimbursement of BBP by treasury is made on the basis of actual performance and utilization rate submitted by the SHA.

Initially no official co-payments applied to BBP services. However, survey results showed that budget reimbursement rates covers on 30 to 50 percent of services, which results in non-official co-payments by patients.

Currently the BBP is revisited to clarify definition (expected to reduce the budget burden) and increase cost-effectiveness of budget allocations by introducing formal co-payments and gradually increasing public finding.

Source: Bank Staff

* in 2002 became a structural unit within MoH

- 47. The Government is proceeding cautiously on the long run objective of devolving more budget authority. This approach mitigates the risk of imbalances resulting from premature implementation of advanced forms of budget formulation being introduced before necessary preconditions in other functional public financial management areas are met. Advanced forms of program budgeting typically structure budget authority around programs while relaxing (or in some cases eliminating) input controls. This requires the introduction of more complex accounting, costing and reporting systems, sound internal controls, and the buildup of adequate financial management capacity, including in line ministries. It also requires robust systems for defining, measuring and collecting non-financial performance information on programmatic basis, which in turn necessitates investments in the ICT systems. Putting these preconditions in place will require strong coordination between the budget department and the treasury.**
- 48. The initial phase of program budgeting will introduce the revised program classification with a view to deepen policy orientation of the budget, while the control regime will not be changed.** Adopting a budget by programs does not imply elimination of other classifications. More detailed classifications, notably those by *organization and* economic type, location, and funding source, are necessary for budget execution and expenditure control, including for deconcentrated expenditures in provinces and districts. However, if the Budget System Law is changed, so that annual budget appropriations were defined by programs augmented by a broad economic classification, such a simplification would provide parliament

with greater clarity on the objectives of the annual budget and allow a focus on the outcomes important for politicians. At the same time, input controls during the execution phase will be gradually focused on budget allocations by program costs. Detailed transaction information by economic type, and activity will continue to be captured and used for management information and costing.

49. **Building on this process, the key next step identified by the Authorities is the adoption of the proposed amendment to budget system law and subsequent changes to key business processes underlying the budget preparation process, including adjustment of budget request templates.** The authorities have sets specific numerical targets for the gradual expansion of coverage of program budgets over the coming three years. In addition, continued capacity development is planned to build up the skills and institutional capabilities needed for line ministries to comply with the requirements of program budgeting.
50. **Implementation of program based appropriation for fiscal year 2012 is a very challenging goal.** Everything required for making the transition from the current budgeting process to a program based budget would need to be in place by early 2011, including a revised Chart of Accounts, systems to systematically capture, store and manage non-financial data, and robust program costing guidelines. Implementation experience from other countries suggests that premature implementation can lead to discredit of budget reform initiatives.
51. **First, downstream implications of program budgeting on budget execution need to be adequately addressed.** The introduction of program classification needs to be embedded in the Chart of Accounts and requires related changes in the accounting and reporting system (these changes are discussed in more detail in the section of this report that deals with budget execution), to ensure payment transactions can be recorded and consolidated on a program basis. Due to the limited involvement of the Treasury Department in the conceptualization and implementation of the program budgeting initiative, these important aspects of budget execution are not addressed. The current treasury system does not capture transaction information on a programmatic basis. Actual spending data would have to be manually linked with the program allocations contained in the budget document.
52. **Second, the preparatory work has focused primarily on the design of program structures, objectives and indicators, but program costing has not been systematically assessed.** In conjunction with the increased focus on results, program budgeting is also intended to provide a better basis for understanding the cost structures associated with the delivery of public services. Having a robust costing process in place is instrumental to making program expenditure information meaningful and reliable. If costs can be assigned arbitrarily to programs, the introduction of program classification may dilute expenditure information as significant costs may be “hidden” in central programs.
53. **Program costing is complex and there are a number of issues that need to be resolved in this regard.** First, the problem of indirect costs, or overheads, can prove difficult. Programs will consume resources from central support functions, such as personnel, accounting, or general management, that contribute to more than one program and are difficult to break down into specific programs. Secondly, program costs will include cost items where cash expenditures and actual consumption are disconnected and these non-cash costs are not captured adequately in the cash accounting environment typical for most public sector organizations. While conventional wisdom calls for program costs to reflect full costs, such full cost accounting should only proceed to the extent that it is feasible and meaningful.
54. **Third, given the plans to introduce program classification on top of the existing control structure, it is also important to examine the implication of this additional layer on rigidity during budget implementation.** The Armenian budget implementation system is already characterized by detailed spending controls. Since these will –at least in the short run- not be relaxed, the program based appropriation will add an additional layer of control.
55. **Fourth, since generating and managing performance information is costly, it is important to design and build performance systems that respond to actual informational demands.** For the performance information to have impact on the way the government conducts business, it is also important to build robust management systems that can extract information that is meaningful for managerial and political purposes. Experience from many countries shows, that the first implementation stage of performance oriented

budgeting is typically associated with a proliferation of performance information and indicators. While this will create an additional burden on budget users, it is not always clear how the information generated will be captured, managed and used for budgetary management and decision making. There are several inter-related issues that could be addressed in this regard.

- First, information needs could be identified for different levels of the organization.
- Second, based on this a reporting system should be designed and established, able to track performance information and link it to financial information. There are strong ICT aspects to this and modern budgeting software and GFMS usually provide the capability of managing non-financial data. There are also questions of data availability and quality, in particular for external sources.
- Thirdly, business process changes and capacity building needs to be implemented to ensure financial managers at various levels, including the Ministry of Finance budget department actively use the information provided.

BOX 9. LESSONS FROM INTRODUCTION OF PROGRAM BUDGETING IN SOUTH AFRICA

Like many countries that aim at improving their performance in improving public expenditure management, South Africa adopted performance based budgeting as a system that would help the government to achieve this goal. To this effect, South Africa passed the Public Finance and Management Act of 1999 (PFMA). The main objectives of the act include the following:

- Modernization of the system of financial management;
- Enabling public sector managers to manage, but at the same time be held accountable for results;
- Ensuring the timely provision of quality financial and performance information;
- Elimination of waste and corruption in the use of public assets.

The implementation of the PFMA introduced strategic planning, and annual performance plans, measurable objectives, quarterly and annual performance reports as part of the South African budget process. The aim was to shift the focus from how much the government spent to how effectively and efficiently the money was spent to achieve government objectives.

The PFMA also formalized the concept of responsibility and accountability in managing South African public finances to inject a culture of managing for results and being accountable to the South African public. This new culture of managing for results requires the devolution of responsibility, resources, authority and autonomy to make decisions at line management level. Line managers should have the flexibility to decide on how much resources (human, financial, information etc) need to be employed to deliver specific service delivery outputs contributing to specific programme outcomes of the department.

The implementation of performance budgeting should take an integrated rather than an isolated approach. It should be supported by other key managerial reforms. Some of the lessons learnt from South Africa and other countries include the following:

- Political will and commitment play an important role at the early stage of the reform and during the implementation to mobilize government departments to implement performance budgeting.
- Performance budgeting should form part of the long-term integrated plan for enhancing government performance rather than an isolated plan with short-term focus to solve the immediate problem in the budget system. In South Africa, even if the initial budget reforms that were implemented from 1994 were discrete, they were informed by common underlying principles. This ensured ultimate convergence and coordination.
- The country specific context should inform the strategy for implementing performance. Understanding the country specific environmental context within, which performance budgeting will be implemented is important to formulate a feasible strategy for implementation. In this case, South Africa through the Office of the President commissioned a study to understand the strengths and weaknesses of the South African budgeting and financial management system and looking forward on how the country can use its strengths to explore opportunities and improve on weaknesses to avoid threats.
- Administrative capacity determines the pace of implementing performance budgeting. In South Africa, there are broadly two types of government departments: The existence of capacity differences between government departments requires different approach to the capacity level of each type of government department. The financial management basics need to be in place to create a suitable governance platform for realizing the potential of performance budgeting.

Source: "Implementing performance Budgeting in South Africa" paper prepared by James Nkoana, and presented at 19th annual conference of the Association of Budgeting and Financial Management.

2.4 Recommendations

56. The main recommendations of this section and their broad sequence of implementation are indicated in the table below.

TABLE 2. SUMMARY OF RECOMMENDATIONS ON BUDGET FORMULATION

Reform area	Stage 1	Stage 2	Stage 3
Medium Term Fiscal Framework	<ul style="list-style-type: none"> Further strengthen technical aspects of forecasting Develop the fiscal risk assessment and statement in the Medium Term Expenditure Framework document together with contingency plans for the management of fiscal risks if they arise. 	Strengthen fiscal policy capacity beyond forecasting and further develop Macro chapter of the Medium Term Expenditure Framework document to become a Macro-economic Strategy document putting fiscal policy stance of the Government in the context of the overall macro-economic environment	
Medium Term Expenditure Framework	Review current actual practices and design a plan to bring all sectors to full compliance	<ul style="list-style-type: none"> Consistently apply the baseline/new initiative presentation across all functions and institutionalize process by which proposed new initiatives are prioritized in line with stated government policy objectives Explore possible application of efficiency mechanism (either efficiency dividends and/or baseline reviews) as an amendment to the current Medium Term Expenditure Framework process Design and test mechanism for efficiency dividend or baseline review 	Institutionalize efficiency mechanism
Program Budgeting	Re-examine the current timeline for implementation of program based appropriations to allow for sufficient time for outstanding issues to be addressed.	<ul style="list-style-type: none"> Examine the effects of the program classification on budgetary controls and rigidities and make adjustments as needed. Identify and address implications the introduction of program based appropriations will have on the way the budget is implemented. Key priorities in this regard is the refinement of the chart of accounts to accommodate a robust program and activity structure that allows coding of transactions on a program basis to enable program based reporting of execution data. Develop feasible and meaningful program costing guidelines commensurate with the accounting capabilities Move to program based appropriations after prerequisites are duly addressed 	Further develop program budgeting towards devolved budget authority and management, including increasingly program based operational controls
Public Investment Management		<ul style="list-style-type: none"> Initiate improved Public Investment Management Procedures, including requirements for feasibility studies and cost and benefit analysis for projects above certain size. Install Gate keeping function for investment project at centralized level at MOF. 	

3. Budget Execution

3.1 Government objectives

57. **The Armenian Public Financial Management Reform Strategy over the next decade is geared towards the improvement of the quality of services delivered by the government in accordance with the agreed policy goals and objectives.** The Treasury's role as a provider of cash management, payment, accounting and reporting services to government institutions is a significant enabler of transparency and accountability to the public. The Public Financial Management Reform Strategy, therefore, provides for sustaining current treasury services and developing them further to keep pace with reforms in other areas such as policy orientation of the budget, IT enabled banking services, integrated Enterprise Resource Planning business process solutions, and more transparent reporting through inclusion of information on accrued assets and liabilities. The specific actions proposed as part of the current draft strategy are provided in text boxes in the sections below.

3.2 Analysis of present situation and ongoing reform initiatives

3.2.1 Legal framework

58. **As mentioned in chapter 2, the backbone legislation for public financial management has been in place for a decade.** Armenia has two key pieces of legislation for managing the government financial system, the Budget Systems Law and the Treasury Systems Law. The Budget Systems Law is an organic budget law enacted in 1997 which covers both budget preparation and budget execution. The Treasury Systems Law was enacted in 2001 and covers budget execution in greater detail than the Budget Systems Law. In accordance with the Treasury Systems Law, the Treasury is responsible for organizing the execution of the State and Community budgets and managing their cash flows. It also has the responsibility to record extra budgetary transactions of State agencies and Government Institutions. On the financing side the Treasury manages internal debt and records grants and credits. Chief Financial Officers of Departments of State and Community agencies are responsible for managing the financial and accounting services of the department under the supervision of the head of the Agency. The Treasury Systems Law also provides for the appointment of a Chief Accountant by the Head of the Government Agency with the approval of the Chief Finance Officer of the supervising Department. State Agencies are required inter alia, to record and report on commitments, assets, liabilities, payments, and cash flows. The Treasury Systems Law makes it mandatory for all government cash balances to be managed through a Treasury Single Account.

3.2.2 Budget authority management, payment processing and cash management

Box 10. GOVERNMENT TARGET IN THE AREA OF TREASURY SYSTEMS

"Improving the quality of delivered services and information, including reporting on budgets execution through the implementation of the Public Sector Financial Management Information System (GFMIS)."

Source: Draft Government Decree on Approving the Strategy for Reforming the Public Financial Management System. July 2010.

59. **The Treasury Single Account has been established but the coverage is not comprehensive.** One of the major reforms accomplished by 2000 was the setting up of a Treasury Single Account hosted in the Central Bank and covering cash balances of the central government, community governments, and extra budgetary funds. The following sub-accounts are contained in the Treasury General Ledger: (i) State budget revenues are credited to the State budget unified sub-account ("SUA"), (ii) Community budget resources are credited to the Community budget unified sub-account ("CUA"), (iii) Extra-budgetary resources of budgetary institutions are credited to the budgetary institutions' extra-budgetary resources unified sub-account ("EUA"), and (iv) All other deposits related to central and local government not classified elsewhere are credited to the governing bodies deposit unified sub-account ("DUA"). The cash balances of Non Commercial Orga-

nizations, set up in 2001², were subsequently moved out of the Treasury Single Account into commercial bank accounts owned by the respective Non Commercial Organizations. This has resulted in the opening of more than a thousand commercial bank accounts outside the Treasury Single Account regime, managed by the Non Commercial Organizations.

- 60. The commitment and payment functions, handled by the Treasury, are robust, and performed electronically.** The Treasury was established in June 1996 following the enactment of the Budget Systems Law. By October 1996, the Central Treasury and the Local Treasury Branches in the 11 regions of Armenia had begun to perform their core function of processing the payment claims of around 6600 budgetary institutions of central and local governments. The Central Treasury is well connected with its 43 Local Treasury Branches (LTBs) and with the 73 Chief Budget Users through the transaction settlement network of the Central Bank of Armenia. When budgetary institutions enter into contracts with suppliers they are required to submit the contract documents and summary cash flows to the Treasury. The Treasury approves the underlying commitment and registers it in the database. Payments cannot be proposed unless commitments are approved and registered in the system. Direct payments to suppliers of budgetary institutions are made through electronic transfer of funds initiated by the budgetary institutions and processed through the Central Treasury and the Central Bank. Direct electronic payments include the payment of salaries to all government employees, which are remitted to their individual bank accounts. All cash payments for petty expenditures of Spending Units are made by the commercial banks of the respective Local Treasury Branches from their own currency resources and reimbursed by the Central Bank from the Treasury Single Account within two days.
- 61. The flows of government receipts into the Treasury Single Account are handled through a network of commercial bank accounts swept daily into the Treasury Single Account.** Government revenues can be deposited in branches of any commercial bank. These receipts are swept daily into the Treasury Single Account in the Central Bank. The local government revenues and revenues pertaining to extra budgetary funds are also concentrated in the Treasury Single Account. Revenue receipts transmitted from the commercial bank accounts to the Treasury Single Account are automatically credited to the appropriate revenue ledgers of the respective budget owners in the Treasury.
- 62. Budget control in the Local Treasury Branches and the Spending Units is currently being exercised at a very detailed level of budget classification.** Recent changes in the financial regulations have, in principle, provided the financial managers in the Line Ministries and their subordinate institutions a degree of flexibility to reallocate budget provisions not exceeding 10 percent of total allocations across programs and across economic categories of expenditures. Budgetary control is exercised by the Local Treasury Branches on the basis of budget allocations and cash limits. After the budget has been appropriated by the National Assembly, the Central Treasury communicates the approved financing (budget allocations) to the Line Ministries. These in turn submit detailed requests for financing expenditures, to be incurred by them and their subordinate spending units, to the Central Treasury. The Central Treasury communicates this budgetary institutions-wise breakdown of financing to the Local Treasury Branches responsible for servicing the budgetary institutions. The annual financing limits for the budgetary institutions are then broken down into quarterly and monthly cash limits (year to date) based on their work (and procurement) plans. The commitments and request for payments submitted by the budgetary institutions to the Local Treasury Branches are checked against the available cash limits before being processed and approved. Commitments cannot be made without checking budget availability first. Government approval is required to switch expenditure between quarters, and Treasury and Ministry of Finance approval to switch expenditure between months.
- 63. Cash planning has improved significantly with the establishment of an inclusive budget commission.** The Budgetary Commission, which includes the Ministry of Finance, Central Bank and revenue authorities, is responsible for issuing monthly cash forecasts (which are broken down into weeks) based on four variables: receipts, payments, debt issuance and payment arrears. The Commission meets weekly and is chaired by the Chief Treasurer. This procedure was established recently and has resulted in a significant improvement in information flows pertaining to government cash requirements. Monthly projections are now close to actualized expenses: The Ministry of Finance is now able to generate interest income from any idle cash balances invested through the Central Bank.
- 64. Building on the good performance of these core treasury functions, the challenge now is to gradually introduce managerial flexibility without compromising on transparency and accountability.** With the

² Law of Republic of Armenia on Non Commercial State Organizations October 2001.

implementation of Program Based Budgeting, budget appropriations in the National Assembly and then gradually budget control during budget execution is planned to be ultimately exercised at the aggregate level of program allocations rather than at the detailed line item level. The revised budget control procedures are intended to be designed to support the flexibility provided to program managers to manage financial resources. For the present, however, the Local Treasury Branches continue to control budget execution at the line item level and if the budget reallocations done by managers in the Line Ministries in accordance with existing regulations are not synchronized with the budget allocation information registered in the Treasury database, it is likely that payment orders could be rejected/ delayed³. There is also a concern that providing program managers greater flexibility to manage resources without putting in place alternative control mechanisms to ensure that the managers are making appropriate use of this flexibility, may result in violation of prescribed financial management procedures.

- 65. The Authorities have already planned significant reforms which are intended to address this challenge. Firstly, the Treasury plans to provide direct access to its systems to program managers to record transactions and perform budget control.** A pilot project has been started in the Yerevan Municipality to provide them direct access to the database of the automated software system “Treasury Operation Day” of the Central Treasury. This access is intended to give the Yerevan municipality the ability to directly perform all required budget execution transactions related to their account with the Treasury. They would be able to enter spending plans and commitments, and make payment to their suppliers through bank transfers. The Municipality will also be able to review and extract their budget execution information held in the Central Treasury database. In other words, the Central Treasury will host the Yerevan Municipality account within their database and ensure that transactions carried out by the Municipality are within the overall budget allocations and covered by the cash balance in the account. It is also planned to enable the Municipality to modify their budget allocations within the flexibility provided to them under the rules as long as the reallocations are consistent with the overall budget envelopes of the Municipality and do not affect the transactions already in the payment pipeline. These modifications would be immediately reflected in the Central Treasury database and there would be no need to synchronize the reallocations through paper based document exchange. Once the “proof of concept” has been established through the pilot, the facility can be rolled out to the owners other Treasury Single Account sub-accounts. With the implementation of this modification of the current application software the existing ex-ante budget controls will continue to be applied automatically to transactions. However, eventually the business processes related to budget control are intended to be owned by the program managers rather than the Treasury. The Treasury would only retain responsibility for ensuring compliance with generally agreed practices while configuring these business processes in the system. The Treasury would also retain the ability to access the transaction information recorded directly in its database by the program managers, to review, consolidate and disseminate information on budget execution.
- 66. Secondly, the Treasury is taking steps to interface the database of the Budget department with its own database.** The Treasury has entered into a contract with their application software vendor to establish a “mutual electronic integration of the budget formulation database owned by the application “LSBudget” in the Budget Department, and the budget execution database owned by the application Treasury Operation Day”. It is envisaged that the system will provide for the automatic transfer of information on the budget appropriated budget at the beginning of the year, from the budget database to the Treasury database. The interface is also intended to provide for the periodic synchronization of the two databases during the in-year budget execution process so that the reallocation of budgets at the line-item level done by the program managers directly in the Treasury database are reflected in the database of the Budget Department. This interface between the two fragmented databases is intended to enable the Budget Department to (a) use the latest budget vs. expenditure data in the budget review/ dialogue process, and (b) suggest/ institute timely corrective measures within the annual budget period. This improvement Finance will provide the Budget Department and the Treasury the ability to review and analyze budget execution data without infringing on the program managers flexibility to manage financial resources. One of the major benefits of improving the interface between the budget and Treasury databases is that it would help facilitate the analysis of actual performance versus the budget allocations.

³ The Treasury registers budget ceilings by line items. Managers in line ministries are now provided the flexibility to vire/move budgets between line items. However, this virement is not registered automatically in the Treasury database. The change is reflected on the basis of supplementary documents received from the line ministries. Therefore, there could be a time lag between the processing of transactions in the Treasury and the registration of the increased/ decreased budget allocation pertaining to the corresponding line-item in the treasury data base. In other words the budget virement is not synchronized with the line-item-wise budget information held in the Treasury data base.

67. **Thirdly, the Treasury has contracted the development of internet-based software to register and monitor procurement contracts.** It is envisaged that this software will be interfaced with the “Treasury Operation Day” and “LSBudget” systems. The interface will further automate the commitment control process which is currently being externally patched into the “Treasury Operation Day” system through the registration of paper-based contract summaries submitted by the spending units to the Local Treasury Branches (see details in earlier sections). The development of application software to manage procurements within budget institutions and its linkages with the commitment and payment system of the Treasury will ensure that financial processes are being implemented as provided for in the regulations. Bringing in automated controls into the procurement process through a robust procurement processing software will reduce the risk of violation of procurement processes and will provide the program managers, the Treasury, and the Budget Department timely information to be able to anticipate and deal with bottlenecks in the budget execution process.
68. **The Treasury has developed a strategy and specifications for implementing a fully integrated “commercial of-the-shelf” based GFMIS over the medium term to anchor and sustain these individual procedural reforms.** All the essential business process improvements related to ensuring efficiency and transparency in the budget process in Armenia described above will continue to be fragmented, albeit loosely interfaced, unless they are anchored in the fully integrated modules of an appropriate Enterprise Resource Planning (ERP) solution. This integration will ensure the sustainability of the reform both in terms of application software and hardware updates and in terms of availability of services to maintain the Enterprise Resource Planning (ERP) application. Anticipating these future requirements the Treasury has developed detailed systems specifications, costing and implementation plan for a GFMIS solution. The details of this solution are discussed in Chapter 5. The integrated budget preparation, general ledger, payable, and reporting modules of such a solution will provide a seamless integration between all the stages of the expenditure cycle providing all the users with the latest view of the implementation of the budget. It will facilitate the use of modern auditing techniques. It will also provide comprehensive and timely information for evaluating the success of the government’s strategic plans and development initiatives.

3.2.3 Accounting and financial reporting

BOX 11. GOVERNMENT TARGETS IN THE AREAS OF THE PUBLIC SECTOR ACCOUNTING AND AUDITING

Targets on Public Sector Accounting

“To ensure the existence of the accounting system which will provide comprehensive and reliable information on Armenian public sector activities, which should be consistent with the international public sector accounting standards, as well as compatible with generally applicable with Armenian private sector accounting standards.”

Targets in the area of corporate accounting and auditing

“The degree of transparency and accuracy of financial reporting filed by state-owned commercial organizations will increase thereby allowing to improve the effectiveness of government asset and liability management, as well as to further the effectiveness of operations of state-owned entities. The appropriate legislation and system on corporate accounting and auditing which is consistent with the international standards and practices will also lead to accuracy of financial information of commercial entities, transparency of their operations, adequate and effective management decision-making by entities.”

Source: Draft Government Decree on Approving the Strategy for Reforming the Public Financial Management System. July 2010.

69. **The classification of budgetary accounts is compatible with GFSM2001 but the basic accounting ledgers in budgetary institutions are maintained in accordance with the accounting instructions of 1987 as mentioned in the 2002 IMF report on accounting reforms⁴.** The budget classification, which was established in 1999 and included economic, functional and administrative classification, has been updated in 2005 to make it compliant with the economic classification framework of GFSM2001. However, financial accounts are maintained in accordance with the accounting instructions issued in 1987. The Treasury General Ledger is maintained in a double-entry accounting system. It has a sub-account structure that distinguishes, at the first level, between state budget revenues, community budget resources, extra-budgetary

⁴ Armenia Accounting Reforms, Vijay Ramachandran and John Zohrab, October 2002

resources of budgetary institutions, and other deposits related to the state and communities not classified elsewhere. The Treasury General Ledger is used to record and monitor the disposition of appropriations and allocations. Budget allocation (financing) is recorded in the Treasury General Ledger for each spending unit based on the distribution of appropriations proposed by the respective Line Ministries. Expenditures are recorded on the basis of requests for payment sent by budgetary institutions to the Central Treasury/ Local Treasury Branches and controlled against financing. The treasury system operates on a cash-based chart of accounts while the budgetary institutions are required to maintain an accrual-based accounting system. The accounts of the budgetary institutions include expense items recognized on an accrual basis, such as depreciation, and, including fixed assets and inventories. Under each of these account categories, separate analytical accounts are maintained in the budgetary institutions to account for flows reflecting the budget classification.

70. **The budget execution data captured in the database of the Treasury is used for reconciling the cash components of financial reports but the basis for government financial reporting continues to be the accounts maintained in the Budget Institutions.** The annual and quarterly financial reports compiled by the line ministries and consolidated in the Treasury are the official financial statements of Government of Armenia. Line ministries consolidate the revenues and expenses pertaining to their subordinate budget institutions and report the consolidations to the Central Treasury. The original budget estimates, adjustments made during the year, and the adjusted estimates are indicated in the report. The adjusted estimates correspond to the financing recorded in the operations department of the Central Treasury. The report also indicates cash expenditure and accrued expenses. In addition to this report, the Central Treasury also receives a consolidated statement from line ministries indicating the opening and closing balances of receivables and payables, and the opening and closing balances of other stocks. The revenues and expenses are classified according to the revised budget classification issued in 2005, which is compatible with GFSM 2001. Government accounting policies are currently based on instructions issued in 1987, which are not in accordance with international practices and accounting standards.
71. **The reporting department of the Central Treasury consolidates reports received from the Line Ministries and produces the following periodic reports for external agencies and the Government:** (i) Monthly budget execution reports to the Statistics Department and the mass media based on financing information from the operations department of the Treasury, and reports on budgetary arrears based on information received from line ministries; (ii) Quarterly budget execution reports submitted to the National Assembly through the government comprising an analysis of the budget performance, a statement of revenues and expenditures by functional and economic categories, a report on the movement of funds in the privatization account, and an analysis of the deficit, and (iii) Annual reports, which include summary balance sheets, changes in financial and non-financial assets and liabilities, and changes in other payables and receivables. The Annual reports also provide additional information on subsidies to communities, capital construction, reserve funds, internal and external debt, participation fees in international agencies, and grants to the government and the National Assembly. Before compiling the Government Financial Reports the Central Treasury manually carries out some preliminary reconciliation of the data received from the line ministries. The budget information reported from the Line Ministries is checked with reference to the financing information received from the Operations wing of the Treasury. The cash information in the Line Ministry reports is checked against the payment information reported by the Local Treasury Branches. The annual movements of receivables, payables and inventories are checked against the corresponding cash flows reported by the Local Treasury Branches.
72. **In addition to periodic financial reports the Treasury and its clients exchange regular information on budget execution.** (i) The Central Treasury provides the line ministries and the Local Treasury Branches with statements of the appropriations earmarked for financing expenditures to be incurred by the spending units, (ii) The Local Treasury Branches, in turn, confirm the availability of financing to the Central Treasury and budget institutions after receiving it from the Central Treasury, (iii) The Local Treasury Branches provide statements of commitment and payment transactions to the Central Treasury and the spending units, (iv) The reporting department of the Central Treasury receives financing information from the operations department broken down by the functional and economic categories of expenditure, (v) It also receives cash expenditure data from the Local Treasury Branches at the same level of detail. Budget execution data are also available to the public in real time as outlined in Box 12 below.

Box 12. REAL TIME ON-LINE ACCESS TO BUDGET EXECUTION INFORMATION

Information on budget execution was recently made available to the general public through an visual interactive webpage accessible through the e-portal of the Republic of Armenia. (<http://www.e-gov.am/interactive-budget>). The figures below illustrate four out of six levels of information available to the public.

Overview of execution of the national budget**Overview of execution in the justice sector****Execution at program level****Line item execution at spending unit level**

The expenditure information is provided in all details - from aggregate functional classification (10 main groups of GFS 2001) down to entities/ final recipient of the funding. The information is updated daily.

73. **Accounting for 1800 State Non Commercial Organizations is in accordance with Accounting Standards of the Republic of Armenia (2001) (ASRA), based on International Financial Reporting Standards (IFRS) in existence at that time.** Reporting to line ministries is in line with the arrangements set out above.
74. **A 2008 assessment of accounting practice in a range of state administrative institutions and NCOs found significant weaknesses in accounting practices;** including:
- Reliance on manual accounting records and - where computers exist - budget institutions use spreadsheets rather than computerized accounting packages;
 - Many budget institutions do not maintain records using a double entry book-keeping system;
 - Lack of compliance with accounting policies issued by government;
 - Different and inconsistent chart of accounts used across state bodies;
 - Weak technical competence and IT skills of accountants; combined with a lack of relevant professional qualifications or training courses.
75. As a result of the above systemic weaknesses the Report questioned the overall reliability of financial information and its utility to budget managers and senior government officials unlike.
76. **The Government of Armenia has taken steps to address these weaknesses by completing the following activities financed through an IDF Grant:** (i) Assessment report on the existing accounting and financial accountability framework and capacities,(ii) Draft Law on Accounting in Public Sector Organizations, (iii) Draft Public Sector Accounting Standards of the Republic of Armenia based on IPSAS (PSAS RA), (iv) Draft Chart of Accounts for Accounting for the Financial and Economic Activities of Public Sector Organizations, (v) Draft Accounting Manual for Public Sector organizations, (vi) Model Accounting Policy

for Public Sector Organizations, (vii) Draft IPSAS Reform Implementation Strategy, (viii) Instructions for conversion from the current chart of accounts in public sector organizations to the new chart of accounts.

- 77. Based on the Assessment Report the Ministry of Finance has proposed a draft strategy to implement accrual accounting over a period of 7 years⁵.** The draft strategy includes: (i) Preparatory activities such as the identification of responsible persons to implement the reform, legal framework, development of instructions and manuals, capacity building and deployment of appropriate application software; (ii) Implementation measures including the inventory of assets and liabilities, valuation of assets and liabilities, recording of these values as opening balances in the balance sheet for selected implementation year, implementation of a uniform accounting software, and accrual based reporting at different levels of government; (iii) Identification of stakeholders and their roles in the implementation; and (iv) a project implementation plan.
- 78. Government budgetary and financial reporting remains fragmented and incomplete.** Government financial statements and budget execution statements are compiled in the Treasury from manually consolidated reports received from the line ministries every quarter. The financing and payment transactions captured in the database of the treasury are used for managing budget execution and for verifying the accuracy of some elements of the quarterly reports compiled manually by the line ministries. The line ministries are also required to submit periodic reports on in-year payment arrears (if any). The stock of arrears is not captured in the cash-based reporting of the Treasury. For the present the Treasury is working on improving the manual reporting system by providing facilities to the line ministries to submit their quarterly statements electronically. Application software is being developed to automatically consolidate the quarterly statements received electronically in the Treasury. The software is also intended to automatically review the data in these reports against the financing and payment data captured in the database of the Treasury. If there was a GFMIS in the Treasury, the reporting from the integrated data base of the Treasury would be comprehensive and would depict the official government accounts. The reliability and relevance of the financial information would be ensured at the time of data capture and there would be no need for any further reconciliation with external reports submitted by the line ministries.
- 79. The timeline of seven years transition to full accrual accounting is overly ambitious. It does however support the Government's efforts to align and benchmark their reform efforts to an internationally recognized set of accounting standards i.e. IPSAS.** In that context a more cautious approach would be to recognize that the Government should focus on the gradual improvement of basic bookkeeping, accounting and financial reporting and will address many of the systemic weaknesses highlighted above. This approach is closely aligned to the overarching objective of Phase I of the Government's PFM Reform Strategy i.e. "Complete the work on introduction of the basic systems and controls while gradually transitioning from centralized administration to decentralized management and results-based program management".
- 80. The preparatory work conducted under the Bank's first IDF Grant provides a solid basis for Phase I activities.** It does however imply that the Government should be selective in those accounting standards and accounting policies which are implemented during Phase I of the PFM Strategy. In that context some of the more important reform activities are:
- Develop accounting policies, manuals and standards to be applied by state administrative bodies and NCOs;
 - Development of a uniform chart of accounts for state administrative bodies and NCOs;
 - Development of a simple accounting software package which can be applied at state administrative bodies and NCOs;
 - Development of capacity building plan for (a) accountants which is focused on practical training and (b) public sector managers which provides them with an understanding of the importance of good quality financial reporting in the decision making process.

The Government's plans in piloting the accounting and financial reporting in a range of budgetary institutions and NCOs is an extremely worthwhile approach which will provide an opportunity to learn lessons which can be built into later Phases.

⁵ Draft Strategy on Implementation of Accrual Basis International Public Sector Accounting Standards, 2010

3.2.5 Establishment of non commercial organizations (NCOs)

BOX 13 GOVERNMENT TARGETS IN THE AREA OF REGULATING AND MONITORING FINANCIAL ACTIVITY OF ENTITIES WITH STATE PARTICIPATION

Target related to entities with state participation:

“To achieve transparency and accountability in managing the funds appropriated to state owned, including NCOs, as well as to increase the level of fiduciary control;”

Targets in the area of corporate accounting and auditing:

“The degree of transparency and accuracy of financial reporting filed by state-owned commercial organizations will increase thereby allowing to improve the effectiveness of government asset and liability management, as well as to further the effectiveness of operations of state-owned entities. The appropriate legislation and system on corporate accounting and auditing which is consistent with the international standards and practices will also lead to accuracy of financial information of commercial entities, transparency of their operations, adequate and effective management decision-making by entities.”

Source: Draft Government Decree on Approving the Strategy for Reforming the Public Financial Management System. July 2010.

- 81. With the establishment of Non Commercial Organizations a large group of former budgetary institutions has been pulled out of the treasury system.** The Government of Armenia has initiated reforms aimed at decentralizing fiduciary control of service delivery units so as to improve service delivery. Currently there are more than 1,800 Non Commercial Organizations under the central government which include schools, museums, libraries, universities, etc. However, an adequate fiduciary control framework as a substitute for the treasury controls for the Non Commercial Organization has not been put in place. Other than authorizing the Executive Body of a State Organization to open accounts in banks, the Law on Non Commercial Organization does not detail the financial management responsibilities of the Executive Body of State Organization. The order founding the Non Commercial Organization obliges it to publish yearly financial reports.⁶
- 82. There is an appreciation now in the Armenian Government that there is a need for a review of the functioning of Non Commercial Organizations to improve their governance and financial management procedures.** The Methodological Department of the Ministry of Finance has prepared a draft Terms of Reference for a consultancy in this area. The stated objectives of the consultancy are:
- (i) Review the existing fiduciary control/monitoring framework for Non Commercial Organizations and provide recommendations on the key requirements need to be established towards Non Commercial Organizations in order to answer the following questions:
 - a) What are the key principles that should guide the decisions on establishing new Non Commercial Organizations or for the current Non Commercial Organizations to retain this status?
 - b) What are the key requirements to be set towards the performance of financial and economic activities of Non Commercial Organizations (financial management, assets and liabilities management, etc.)?
 - c) Are there sub-categories (or families) of Non Commercial Organizations substantially different in their nature and operation, and if so, what are their main characteristics and how should each sub-category be regulated and controlled?

⁶ The Law of the Republic of Armenia on Non Commercial Organization from 2001 provides for a governance structure comprising the “Founder”, the “Authorized State Body” (ASB), the “Collegial Management Body” (CMB), and the “Executive Body of a State Organization” (EB). The Founder sets out the scope and goals of the organization including the types of entrepreneurial activities implemented by it. The Authorized State Body is responsible for exercising control over the activities of the Non Commercial Organization including control over the use and maintenance of the state property attached to the Non Commercial Organization. The Executive Body of a State Organization is responsible for the administration of the current activities of the Non Commercial Organization in accordance with the authority delegated by the Founder, and the Authorized State Body as formalized in the Charter of the Non Commercial Organization. Oversight of the Non Commercial Organization is based on the performance criteria established through a contract signed between the Executive Body of a State Organization and the Authorized State Body. The Executive Body of a State Organization may be nominated or elected. The Law also provides for the setting up of a Collegial Management Body of the Non Commercial Organization which is empowered to recommend the main directions of its activities, exercise control over the executive body, submit recommendations on the annual draft cost estimates to the Authorized State Body, discuss and approve financial and other reports, and approve sale or purchase of assets within the limits set by the Law.

- d) How should the financial and economic activities and performance of Non Commercial Organizations be controlled or monitored and are there any gaps in the developed fiduciary control methodology (theoretical model) and what are the main risks for successful introduction of the proposed framework?
- (ii) Pilot the developed fiduciary control or monitoring framework (hereinafter referred to as the framework) in selected Non Commercial Organizations and provide recommendations on further steps for operationalizing the framework based on the pilot results.

- 83. The recommendations related to budgetary and financial reporting in this section are not intended to pre-empt the conclusions of the proposed consultancy.** The following discussion does not relate to the principles related to establishment of Non Commercial Organizations and to improvements in their governance structure. It questions the need for establishing alternative financial management procedures outside the Treasury system to capture the same accounting and budget execution data which was already being processed in the Treasury through its tested and robust data capture and reporting system. The concern of managers in the Non Commercial Organizations is that the use of existing treasury budget execution systems and the Treasury banking system will mean more rigidity of financial controls exercised by the Ministry of Finance and reduced flexibility in the use of financial resources hindering the delivery of better performance to service recipients. The earlier section in this report discusses in detail how government entities can continue to use Treasury systems to record financial transactions and process electronic payments to their suppliers without losing flexibility in using their resources.
- 84. The use of existing treasury data processing and banking arrangements could result in a win-win situation for the Non Commercial Organizations as well as the financial management capabilities of the Ministry of Finance.** There are advantages to the Armenian Government and to the Non Commercial Organizations if the cash balances of Non Commercial Organizations are handled in the same way as that of EUA and DUA accounts described in an earlier section. The cash balances could be merged with the government cash balances held in the Central Bank and the extent of Non Commercial Organization cash balances identified in the entity wide ledgers held in the Treasury system. This balance would be identified separately for deposits of “own” revenues and for formula-based/ block transfers made to cover budget allocations. The Treasury system would provide the facility to the Non Commercial Organizations to electronically draw down their cash and make direct payments to their suppliers. They would be given secure access to the sub-account in the ledger of the Treasury/ Local Treasury Branches to make direct electronic payments. While this may not be possible for Non Commercial Organizations in outlying regions, it will certainly be feasible for all Non Commercial Organizations in metropolitan regions such as Yerevan. The advantage to Non Commercial Organizations is that they will have free access to the robust and secure payment facilities offered to the Treasury by the Central Bank. They will have the possibility to earn interest on their balances in the Central Bank. And they will be able to automatically upgrade to improved payment systems as the Treasury moves towards the implementation of a GFMIS system. The advantage to the Ministry of Finance and the Central Bank will be that the consolidated cash balance of the Government will be in one place and this will facilitate the management of Government Debt and monetary policy.
- 85. There will also be advantages to the Ministry of Finance and the Non Commercial Organizations if the Non Commercial Organizations use the Treasury system enabled budget controls for their own financial management.** The payment and budget control features of the Treasury application system have been stable for some time and have been recognized as robust in a number of reviews including the PEFA. Employees in the finance departments of the Non Commercial Organizations were also interfacing with this system before the organizations were moved out of the Treasury system. Therefore, many of them may still be familiar with the procedures. The system has also been augmented to handle commitments. Further upgrades are planned to interface with procurement software and with the Financial Reporting section of the Treasury. The Non Commercial Organizations could easily avail of this automated facility to enter their transactions and do commitment and budget control. Exception reports provided by the system could be reviewed by the finance managers in the Non Commercial Organizations and the process would provide assurance to their governing agencies [such as the “Authorized State Body”, “Collegial Management Body”, and the “Executive Body of State Organization” (EB)] that controls are in place by the fact that the transactions are being processed through a well tested facility. The use of the Treasury system will also help Non Commercial Organizations in planning their cash. It may be mentioned here that the Treasury system would exercise automated budget control in accordance with standard parameters and the responsibility for

reviewing and correcting rejected transactions would be that of the user (Non Commercial Organizations). The Treasury would not be involved in this process. On the other hand, the Treasury would have access to the transactions registered in its database by the Non Commercial Organizations for purposes of consolidating and reporting on budget execution to the relevant line ministries and to other stake holders.

3.2.6 Public internal financial control (PIFC)

- 86. The current internal control environment in Armenia is characterized by an excessive number of control and supervisory bodies that duplicate functions and lack clearly defined accountabilities.** The long-term difficulty with this top-down approach is that it focuses on compliance and does nothing to encourage line managers to accept their responsibility for establishing and maintaining internal controls. In an increasingly decentralized environment, addressing this issue is important to managing fiduciary risk⁷.
- 87. The Armenian Government has committed itself to improving public internal financial control though adoption of an EU sponsored concept for this area of the financial management system.** The adoption of the framework (the PIFC) a conditionality for a EUR 100 million budget support operation in 2010.

Box 14. GOVERNMENT TARGET IN THE AREA OF GOVERNMENT INTERNAL FINANCIAL CONTROL AND INTERNAL AUDIT

“Introducing Public internal financial control (PIFC) system, to provide a reasonable assurance that transactions comply with the principles of sound financial management, transparency, efficiency, effectiveness, and economy as well as with relevant legislation. Underpinning PIFC is an assumption that

- managerial accountability and responsibility exist for the delivery of public services. This means that managers of all levels in both public income and spending centres should be accountable for the activities they carry out - not only in operational policies but also in financial management and control policies;
- internal audit system exists. This means that the leadership of the organization through assurance and delivery of consultancy is provided with independent, objective assurance and consultancy, which is aimed at increased and improved activity outcomes of the organization.”

Source: Draft Government Decree on Approving the Strategy for Reforming the Public Financial Management System. July 2010.

- 88. The PIFC has three principal elements.** The first function is ‘financial management and control’, the second is an assurance element for management, namely ‘internal audit’ and the third is a development and monitoring activity, a central harmonisation unit (CHU) located in the Ministry of Finance. The central harmonization unit has a responsibility to develop guidelines, manuals and policies covering both financial management and control and internal audit.
- 89. The central pillar of PIFC is the financial management and control system based on managerial accountability.** This means that the adoption of Public Internal Financial Control would enable managers of public services and activities to have a clear idea about what they want to achieve with comprehensive knowledge about the costs of doing so. Internal audit provides assurance to management that the ‘financial management and control’ element is working well.
- 90. The Government has committed itself to developing a Public Internal Financial Control policy strategy which elaborates on the objectives of introducing Public Internal Financial Control and describes the pathway for developing the management and internal control environment in Armenia.**⁸ A “Proposal for Reform of the Public Internal Control System” was presented to the Minister of Finance of the Republic of Armenia and discussed and agreed with the Prime Minister in August 2009. The Government is on a course to follow a path to implementing the Public Internal Financial Control framework.
- 91. Experience in other transition economies has shown that the developing a modern public internal financial control framework is extremely challenging.** Setting a course for developing financial management and control will require a fundamental change in the behavior of managers within budgetary organizations. Clear lines of managerial responsibility need to be developed by top management; and these need to be reinforced by revisions to financial regulations which emphasize responsibilities and accountabilities

⁷ Armenia PIFC Gap Analysis: Draft, SIGMA, 2009

⁸ In accordance with the action plan for the Government of the Republic of Armenia, as adopted by the Decree of the Republic of Armenia N 40-N of January 25, 2009, in the course of 2009 the Armenian Ministry of Finance plans

for the management and control of public funds. GFMIS need to be developed to ensure that line managers with responsibility for managing resources have the financial information that is needed for budgetary control purposes.

Box 15. Experience from introducing PIFC in Ukraine and Bulgaria

In Ukraine introduction of PIFC started with a PIFC strategy outlining reforms till 2009. The strategy was approved by the Government and included the three pillars of the EU PIFC system: the introduction of managerial accountability for financial management and control elaborated in a legal framework and professional guidance for PIFC, the introduction of decentralized internal audit by a gradual replacement of inspection by internal audit, and the establishment of a central co-ordination and harmonization function. However, the pace of reform was overly ambitious and almost no progress was achieved by 2008. Thus, in 2008, the revised strategy was approved that set out reforms till 2015.

Two *central* institutions are involved in internal financial control in Ukraine: the State Treasury of Ukraine (STU) and the State Control and Revision Office (KRU). The STU carries out ex-ante control and ongoing control on cash payments. The KRU carries out ex-post control, and functions by inspecting budget compliance and, in the event of irregularities, initiating the application of administrative penalties or handing the case over to law enforcement bodies. Annually the KRU covers 1/3 of the total number of state budget entities and 1/4 of the regional and district budget entities. Centralized control is functional in the present Ukrainian public administration context. However, the system does not stimulate managers to take responsibility for PIFC. Internal audit function does not exist yet, although one of the KRU tasks is to carry out a public financial audit (defined as a “type of financial control”). Thus a PIFC according to the EU model does not exist yet.

The reform envisaged in the Government PIFC strategy was conducted slowly and success was limited. The process went in parallel to regular KRU activities. While internal control and internal audit capacity was developed through a Twinning project, development of manuals and pilots in several government agencies, and establishment of a limited number of internal audit units in government agencies, KRU was largely used by the Government as a tool to control public spending.

In Bulgaria PIFC implementation also took time but was more successful. Prior to 2001, internal financial control was focused similarly to Ukraine on inspections. Following approval of the Public Internal Financial Control Act in November 2010, a transitional period started and continued through 2005. Up to 2001, the situation was similar to Ukrainian with a State Financial Control Department being in charge of ex-post compliance control of budget public authorities and SOEs.

The new PIFC Act and subsequent regulations changed the focus from inspection to internal audit and starting in 2006, the responsibility for internal audit was transferred from the Public Internal Financial Control Agency to ministries and other budget entities. A Public Financial Inspection Agency was formed to take over remaining functions of the State Financial Control Department. Managers of all primary and lower budget-spending units (including municipalities) are now responsible for the operation of financial management control. Managers of first-level spending units and municipalities are in addition responsible for appointing financial controllers and ensuring financial management and control (FMC) systems. Most of the auditors were transferred from the PIFC Body to spending units to act as internal auditors there. Another important milestone of the reform was the replacement in 2006 of PIFC Act of 2000 with 3 separate acts regulating Internal Audit, Financial Management and Control and Financial Inspection which helps clearly divide three functions of PIFC system.

Thus, Bulgaria due to political will to implement PIFC reform and EU accession anchor was able to shift the focus of PIFC from detecting violation and imposing sanctions to assessing systems and recommending improvements.

Source: SIGMA Assessments for Ukraine and Bulgaria 2004-2006; Ukraine PEFA 2007; PEMPAL Presentation of Bulgarian Authorities, 2008

3.2.7 Internal auditing

92. **The basis for conducting internal auditing in public sector organizations throughout Armenia has existed for several years.** The Treasury System Law of 2001 required each Chief Financial Officer to ensure that an internal audit system was established and in December 2002 the Minister of Finance and Economy approved Decree 934-N ‘On procedures for conducting internal audit in state and local self-governance agencies and their subordinate organizations in the Republic of Armenia’. Although internal audit does exist in many budget organizations (other than in a number of local communities) those internal audit ar-

rangements are weak and are not capable of providing the systematic internal assurance which if control arrangements were robust and properly applied would provide appropriate confidence to managers.

- 93. Preparatory work has been done to introduce and develop internal auditing.** With the support of the World Bank the following documents were developed, (i) Public Sector Internal Audit Standards, (ii) Code of Ethics for Public Sector Internal Auditors, (iii) Guidance on the use of Public Sector Internal Audit Standards and (iv) Public Sector Internal Audit Manual. In addition, plans are being considered to establish a Central Harmonization Unit, covering both financial management and control and internal auditing. The institutional arrangements for the Central Harmonization Unit are still to be defined.

3.3 Implications of Program based budgeting Reforms on Budget Execution

- 94. As discussed in earlier parts of this report, the implementation of program based budgeting will require business process changes in the transaction handling and reporting processes in the treasury⁹.** The database underlying application software in the Budget department and the Treasury will have to be structured so as to provide linkages between upstream and downstream elements of the budget and financial management processes.

- Firstly, the classification of data at the budget preparation stage should reflect the linkages between the sector priorities and program priorities of the Medium Term Expenditure Framework with the program and activity classifications used in program budgets.
- Secondly, to ensure that both the Medium Term Expenditure Framework and Program Budgets are “live” documents and not just presentational, it will be necessary to link the budget execution data in the Treasury data base with “policy objectives”, “sectors”, “programs” and “activities” budgeted for in the Medium Term Expenditure Framework and annual program budgets.
- Thirdly, it will be necessary to link the budget execution data with the non-financial data required to evaluate whether the Medium Term Expenditure Framework priorities and Program Based Budgeting programs are being executed as envisaged in the budget.

- 95. To establish these linkages while configuring the integrated budget execution database for each user, it is necessary to take a number of steps.** These include (i) identify and code all the programs and activities across the government¹⁰; (ii) link the performance indicators (outputs or outcomes), and indicator targets (quantitative, qualitative, or timeliness¹¹) with respective “programs” and “activities”; (iii) incorporate the links between the owners (cost/ responsibility centers) and their “programs” and “activities” in the budget execution database;(iv) link the “programs” and “activities” to their respective financial information (costing and resulting budget provisions); and, (v) be able to distinguish between resources required for continuing “baseline” activities and additional resources required to implement new initiatives or augmented versions of baseline activities¹²so as to make full use of the Medium Term Expenditure Framework as a basis for allocating budgetary resources. The program and activity codes discussed at (i) above should be included as an additional segment in the core Chart of Accounts used for budget execution and accounting. The remaining linkages to “policy objectives”, “sectors” and “non-financial” information could be linked (through subsidiary data tables maintained in the system) whenever there is a need to update or report on achievement of results.

⁹ These changes could be planned and configured in advance. Implementation should be phased in tandem with the implementation schedule of the Program Based Budgeting reform.

¹⁰ It is suggested that unique codes be used for classifying programs and activities instead of establishing hierarchical links between these two components or between these components and other classifiers such as functions or sub-functions. The advantage of doing so would be that the “programs” and “activities” could be linked through “open” menus to cost centers (organization), functions (Medium Term Expenditure Framework sectors), performance indicators (outputs or outcomes), and indicator targets (quantitative, or qualitative).

¹¹ The draft “Illustrative Program Budget for 2008” establishes a framework for presenting a program budget which defines Cost Center, Program, Activity, Quantitative Measures, Qualitative Measures, Timeliness measures, Costs, Related Programs, Outcome.

¹² This distinction could be drawn by using an addition tag in the classification of activities to indicate whether the activity is a priority activity and therefore being funded additionally to the baseline. The tag could be removed if the funding in subsequent years is taken as a part of the baseline.

3.4 Recommendations

96. The main recommendations of this section and their broad sequence of implementation are indicated in the table below:

TABLE 3. SUMMARY OF RECOMMENDATIONS ON BUDGET EXECUTION

Reform area	Stage 1	Stage 2	Stage 3
Provide managerial flexibility without compromising on transparency and accountability	<ul style="list-style-type: none"> Continue the following on-going reforms and maintain consistency with the overall GFMS architecture: Provide direct access to its systems to program managers to record transactions and perform budget control. Interface the database of the Budget department with its own database. Develop internet-based software to register and monitor procurement contracts. 	Test and roll out the improved web-based access to the Treasury and Budget systems.	Ensure that these processes are configured in the GFMS.
Program Budgeting	<ul style="list-style-type: none"> Include program and activity classification in the Chart of Accounts. Prescribe posting and reporting rules for this classification segment. 	Update the Treasury processes and underlying database to include financial and non-financial information related to program implementation.	Configure GFMS to include program budgeting information in the budget formulation and budget execution modules.
Accounting reform	<ul style="list-style-type: none"> Improve cash based accounting and reporting to mitigate current weaknesses. Undertake preparatory activities for implementing accrual accounting such as the identification of responsible persons to implement the reform, legal framework, Develop instructions and manuals Undertake training and other capacity building measures. 	<ul style="list-style-type: none"> Inventory government assets and liabilities. Value the listed assets and liabilities. Record these values as opening balances in the balance sheet for selected implementation years. 	Implement accrual based accounting and reporting at different levels of government.
Reporting reform	<ul style="list-style-type: none"> Provide budget control, data recording and payment facilities to Non Commercial Organizations and include their budget execution data in Treasury reports Provide facilities to the line ministries to submit their quarterly statements electronically 		
Public Internal Financial Control	<ul style="list-style-type: none"> Revised draft law on internal audit, issued in October 2009, should be finalized as a matter of urgency Both primary and secondary legislation should make clear that internal auditing will be focused on providing assurance to management on the standard of risk management, control, and governance. An outline Internal Audit Charter should be developed. During the transition period, the role of internal audit should be limited to carrying out 'assurance' assignments. The reporting arrangements for the Head of Internal Audit should protect the functional independence of internal auditing and should also recognize that the internal audit unit is an intrinsic part of the organization It will be necessary to <i>phase in internal auditing</i> over a period of years and on a pilot basis, starting with just two or three line ministries. The first cadre of internal auditors should be identified and appointed to internal audit units in the ministries in which the new approach is going to be piloted – this is permitted by the existing legal framework. This first cadre of internal auditors should receive training in the basic concepts of internal control and internal audit and in the basic techniques for carrying out a modern risk-based, and systems-based, internal audit. The law governing the Chamber of Control should be reviewed and revised – to refocus the Chamber's activity on an external 'financial statement' audit and to facilitate co-existence with internal audit 	<ul style="list-style-type: none"> A long-term qualification and certification strategy should be adopted for the profession of internal auditing. A career structure should be developed for internal audit staff. 	

4. Cross cutting challenges

4.1 Integrated Government Financial Management Information System

4.1.1 Government objectives

97. **The draft strategy envisages the introduction of a Government Financial Management Information System (GFMIS) as a critical enabler of public financial management reforms¹³.** The need for GFMIS has been recognized for over 10 years and endorsed by both the Armenian Government and the World Bank. The Government of Armenia has developed comprehensive technical requirements and an implementation strategy for such system, to be built on the basis of a commercial, high-end financial management software package. Given that the lead time to final rollout of this system is 7 years, further delay in the decision to implement it is not advisable.

4.1.2 Characteristics of the current treasury system

98. **The current computerized information systems used by the Ministry of Finance (see Table 4 below) can be described as essentially electronic file transfer systems for central public sector cash management under a Treasury Single Account.** Files (not individual transactions) are transferred daily between the Central Treasury, each of the Local Treasury Branches and the Central Bank, containing cash-oriented budget, revenue and expenditure transactions. The systems are cash -based, except with respect to contract commitments which are recorded and verified as they occur.

TABLE 4. OVERVIEW OF CURRENT ICT SYSTEMS SUPPORTING FINANCIAL MANAGEMEN

System	Technology	Weaknesses
<p>LSFinance provides basic financial management control functions for state and community public sector agencies namely: (i) accounting for revenues and expenditures; (ii) verification of expenditures against contract commitments and approved quarterly and monthly cash budget limits; (iii) verification of contract commitments against the budget; and (iv) production of basic financial analysis reports related to the above functions.</p>	<p>Developed and maintained by a local Supplier (LSOFT) in Yerevan. Original version developed using Clipper and DOS operating system is still being used in some LTBs. New version Oracle 9.5i and MS Windows Server 2003 is available and runs centrally and in the larger Local Treasury Branches.</p>	<p>There are forty four independent versions of the system, each with its own data base. One runs at the Central Treasury and the other 43 at the Local Treasury Branches. They exchange messages among them and do not directly reconcile their data bases. Messaging architecture of the system for reconciliation and verification against central data bases is not amenable to online, integrated transaction processing required by modern PFM. The Ministry of Finance has contractual restrictions over the software and difficulty to expand it or extract data from it without agreement and payment to LSoft.</p>
<p>BankMail system, owned by the Central Bank (CB) and operated over dedicated, CB-managed wide area network (WAN), manages the exchange of information (via messages) between: (i) the CB and the CT for revenue transactions; (ii) the CT and LTBs for all transactions handled by the LSFinance system (see above); and (iii) the CT and the CB for payments out of the Treasury Single Account.</p>	<p>A client/server architecture with the Server side running at CT and the client side running in LTBs. The system uses Lotus Domino providing message transport services.</p>	<p>While Bankmail system is a strong, reliable platform for message exchange on inter-bank financial transactions, it is of course not an online system and it is not designed to support the public financial management (PFM) functions of the Ministry of Finance. Once the Ministry is able to develop its own, online PFM system, use of Bankmail should focus only on support for the management of the Treasury Single Account.</p>

¹³ See Box 10 on page 31.

System	Technology	Weaknesses
<p>LSBudget System is used centrally at MFE for preparation of annual budgets. It is reportedly* a straightforward data capture and reporting system for budget data received from the line Ministries either in paper or electronic form. The system also allows exporting of agency budgets (not of individual transactions) to the LS-Finance system. As noted, a contract is ongoing with the local LSoft company which developed this system back in 2001 to allow line ministries to connect directly to this software and enter their budget data.</p>	<p>LSBudget is based on client-server technology. The database (server side) is implemented using Microsoft SQL Server 7.0.</p>	<p>The system allows importing and exporting (to LSFinance system) of completed agency budgets, but it does not allow dynamic (and certainly not online) updating of the budget data and therefore it cannot be considered a budget management system (in the sense described in Box 5).</p>

* The mission was unable to see a demonstration of this system.

- 99. The systems are based on a file messaging architecture and use proprietary infrastructure (Lotus messaging software and wide area network) of the Central Bank which is highly reliable.** Technically this architecture and infrastructure is appropriate for the current cash management function of the systems, and clearly this function is performed with a high degree of administrative discipline throughout the treasury organization. However this architecture and technology are two or three generations removed from the current architecture and technology used by modern integrated financial management systems¹⁴.
- 100. Since the Local Treasury Branches hold the accounts of the budget agencies ascribed to them, the systems do support verification of expenditure transactions and contract commitments against budget allocations and cash releases, at the time of data entry. However, this basic financial management function is not online and is available only to the Treasury not the budget agency staff.** A current initiative (see paragraphs 63 on page 33) would allow line ministries to enter their transactions into the Local Treasury Branches system online on a pilot basis and thus for the first time benefit from online transaction verification and approval. This however would be only a partial benefit as final approval of all transactions happens only at the Central Treasury, whose files are not reconciled with those of Local Treasury Branches in real time.
- 101. In sum, the functionality, the technical architecture and the technology used for the current Ministry of Finance systems are suitable for the present limited focus on cash control by the Treasury but they cannot support broader public financial management functions by spending agencies such as cost accounting, managerial accounting, program budgeting, integrated reporting, eventual accrual accounting, etc.** Further expansion or modification of existing systems to support proposed PFM strategy cannot be recommended.
- 102. Various reports, notably from the IMF, Sigma¹⁵ and Corporate Solutions have pointed out the critical benefits to be derived from the rich, integrated functionality of GFMIS. These include:**
- A GFMIS can support a reworking of financial management processes in areas such as fund flow/release and commitment/payment so that they are more streamlined as a support to effective budget implementation while enforcing firm control.
 - A GFMIS will provide a more effective linkage between the results oriented budgeting system that Government is seeking to introduce with accounting and accountability systems.
 - In particular in relation to linkages a GFMIS will facilitate allocating and controlling budgets in terms of expected results and responsibilities for delivering those results at the operational levels, while strengthening central oversight.
 - A GFMIS will make possible more in-depth data analysis that will inform service delivery managers in making better use of the resources available to them (in areas such as understanding the costs of service delivery) while strengthening data flow for monitoring and formal accounting purposes.

4.1.3 Costs of a commercial off-the-shelf GFMIS

- 103. A GFMIS should be a priority if the Authorities intend to develop the public financial management system further.** Robust automated and information rich ICT is a critical enabler for efficient and effective

¹⁴ Systems have progressed from batch file processing to online client-server architectures, to Web-based architectures and now to service-oriented architectures (SOA).

¹⁵ Sigma Armenia PIFC Gap Analysis, 4.3, pg. 42.

tive financial management. In sync with modernization of budget processes most countries have carried complementary investments in ICT systems.

- 104. A major concern regarding a new GFMIS is the expected price.** This is not least because such a system would likely have to be fully or partly loan funded and a very strong business case would have to be made for a major ICT investment at this point in time given deep concerns regarding the level of debt and other pressing demands on the state finances including social spending in light of the economic situation of the country.
- 105. Consultants have estimated the costs of a GFMIS to be around EUR 15 million which currently would be equivalent to approximately USD 20 million.** An overview of the consultants cost estimate is included in [Annex 2](#). This estimate could be seen to be on the high side. The average costs of integrated financial management systems funded by the World Bank in the Europe and Central Asia region amounts to around USD 10 million. Most recently, bids for similar or larger integrated financial management information systems in Moldova and the Kyrgyz Republic came in at USD 10.5 million and USD 6.5 million respectively.
- 106. As there is consensus on the benefits of a GFMIS in the functional departments of the Ministry of Finance, there is a strong case for assessing in more details the cost estimate provided.** The mission would like to raise the following issues and options which would bring down the estimate:
- Licensing costs could be compared to similar costs in other Bank funded projects in the region.
 - Estimates of the communication costs are high compared to international experience.
 - The configuration of the system (the systems specifications) could be evaluated by the Ministry to further assess whether the proposal is in line with or exceeds the Ministry's requirement.
 - Rollout options could be considered. The main future needs might be met through a rollout of the system to only main spending units in the Yerevan area and major urban areas. This would substantially reduce licensing and communications costs etc. The relevance of this proposal would depend on whether indeed the list prices would be applied for the licenses.
 - The possibility of providing the required for infrastructure (wide area network and a data center) as a government wide facility could be considered i.e. as infrastructure being used by different agencies.

4.1.4 Alternatives to commercial-off-the-shelf software

- 107. For many years, the Ministry of Finance has successfully used locally-developed software for its treasury operation and this software has been upgraded over time.** Thus, the costs and complexity of commercial off-the-shelf software packages are often contrasted with those of bespoke software as a possible solution. While recognizing that bespoke software is now usually built on top of off the shelf modules and not from scratch, the following consideration could be taken into account:
- Building financial management information systems involved risks of delay, budget overruns and different than planned functionality whether acquired as commercial off-the-shelf software or developed specially for the country in question. Organizations have to make clear which approach they are best equipped to manage, including whether they have the skills to manage a large software development project in addition to business process changes.
 - There are now industry-standard methodologies that reduce risk of software development, but adhering to them is a complex managerial challenge.
 - Bespoke software is likely to lack the industrial strength of high-end software packages whose reliability has been honed through use by multiple clients over long periods of time. Over time, bespoke systems can become quite stable provided strong project and ICT management can be mobilized.
 - Costs of designing and maintaining bespoke systems accrue over the years as opposed to through a larger upfront investment thus potentially "hiding" the real total cost of the approach as compared to a larger upfront investment in a commercial off-the-shelf system.
- 108.** A decision on whether to eventually choose a commercial off-the-shelf solution or a bespoke system should be informed by a comparison of the total life cycle costs of both approaches as well as on a comparison of risks and benefits¹⁶. It is the assessment of the team that a commercial off-the-shelf solution would be less risky given the limited internal software development and software project management capacity of the Ministry of Finance. In this regard, it should be pointed out that the vast majority of countries adopt COTS solutions whether at the outset or as a second generation solution.

¹⁶ Life cycle costs refer to the total cost of systems ownership. It includes all costs of buying, maintaining, upgrading and disposing of a system. Estimations of life cycle costs are useful when decision makers have to compare alternatives that fulfill the same performance requirements, but differ with respect to initial costs and operating costs. Such a comparison facilitated a selection that minimizes costs/maximizes savings.

Box 16. EXPERIENCE WITH A BESPOKE GFMS IN TURKEY

Within the last decade, the Turkish Ministry of Finance (MoF) General Directorate of Public Accounts (GDPA) has modernized and fully automated most of the critical Public Financial Management (PFM) processes benefiting from the advances in information and communication technology (ICT). Successful implementation and gradual expansion of several key Financial Management Information System (FMIS) components have contributed considerably to efficient public resource allocation and use. Integration of core budget preparation, execution, accounting and reporting functions and linkages with other PFM systems (Tax, Customs, Debt Mgmt, Procurement, Payroll, Asset Mgmt, etc) have created a reliable FMIS solution to support daily countrywide operations effectively, and provide valuable feedback for performance monitoring and economic policy formulation. The recently completed Public Expenditure and Financial Accountability (PEFA) assessment (December 2009) underlines most of these achievements, together with possible improvements for a more comprehensive PFM system.

Since early 1960s, most of the MoF Directorates have chosen to build strong in-house software development, system management, help desk and maintenance capabilities to ensure effective technical support for PFM processes (Treasury Single Account operation with the Central Bank was initiated in 1972). The GDPA has managed to sustain all information systems with a competent team of specialists (currently 77) working under the GDPA Information Technology Department (ITD) and benefiting from the technical support of various ICT suppliers under the warranty agreements.

One of the key MoF information systems is the **say2000i** (web-based public accounting system) managed by the GDPA ITD for public expenditure management, accounting and reporting needs since its countrywide introduction in 2001 (initially serving 6,000 concurrent users (15,000 staff in total) from 1456 Accounting Offices (AOs) located at 81 cities and 850 towns). The functionality, scope and technical infrastructure of the say2000i system have been substantially expanded during 2002-2006 (to serve 12,000 concurrent users in 1464 AOs), resulting in significant improvements in transparency and comprehensiveness of the PFM systems and paved the way for implementation of remaining PFM reforms. The GDPA ITD capabilities have also been gradually expanded since 2002, to focus more on modern web-based in-house developed applications and open-source solutions to provide secure on-line access to a broader group of authorized budget users and auditors over the years.

Starting from 2006, the Public Expenditure and Accounting Information System (**KBS**) has been introduced as the expanded version of say2000i system for nearly 46,000 Spending Units (SUs). Currently, KBS supports more than 110,000 users across the country. In 2006, centralized calculation of public employee salaries (nearly 1.8 million employees) has been initiated. In 2007, open source salary calculation module has been accessible to all SUs via Internet. In 2008, the KEOS (Public Electronic Payment System, implemented by GDPA, Undersecretariat of Treasury and Central Bank) was launched for direct daily payments of all central accounting units. Furthermore, the Gumkart application (GDPA, Undersecretariat of Customs, Vakıfbank) was initiated to centralize payment of customs duties. The KBS-General Government Financial Statistics Application is used for collection of accounting reports from all Local Governments. KBS Budget Execution Reports module provides online information about the performance of budget execution to all central and local budget users since 2006. Financial statistics have been produced according to international standards via say2000i/KBS and submitted to international institutions (IMF, WB, Eurostat) since 2006. Web publishing of all budget reports are linked to centralized databases to ensure monthly automatic updates from reliable FMIS databases. Development of new KBS modules (SU Payment Orders, Movable Assets Management System, etc.) designed for full integration of SUs with AOs have been initiated in 2009. User and role management of all KBS modules are managed through an Identity Management System.

As a part of PFM modernization efforts, the MoF General Directorate of Budget and Fiscal Control (GDBFC) has developed the **e-Budget** (e-Bütçe) as a centralized web-based budget preparation and monitoring system for all line ministries and central government agencies in 2006. e-Budget system includes a large number of modules to cover key requirements of new regulations in the Public Financial Management and Control (PFMC) Law. Interface between KBS and e-Budget has been improved substantially to exchange daily information on budget allocations, payment orders and execution results. In 2008, the MoF Strategy Development Unit (SDU) has introduced **SDU.net** (SGB.net) as a distributed web-based application to be installed in line ministries and central government agencies for supporting core PFM needs.

Enhanced capabilities of say2000i/KBS, e-Budget and SDU.net and linkages with external PFM systems cover most of the core **FMIS** requirements. The MoF is in the process developing several additional modules (e.g. SU payment orders, recoding all invoices, moveable assets, electronic payments, commitment management) to improve PFM practices and develop a fully integrated FMIS platform until 2012. It is also important to note that most of the PFM reforms and implementation of information systems were funded from the MoF budget so far. The MoF officials are also committed to the development of proper ICT standards and governance model in line with the international good practices and coordinate their efforts with ongoing e-Government (e-Türkiye) program and action plan.

Source: World Bank staff

4.1.5 Interim software architecture and software development strategy in advance of GFMS

109. A full roll out would likely take around 6-7 years. Piloting of a GFMS would not be initiated before 3-4 years after a decision to implement it has been taken due to the appropriately lengthy approval pro-

cess involving the Armenian Government and Parliament, procurement processes and time required for implementation. If funding is provided by international financial institutions, their approval process would further add to the time line. In light of this, the current system is being further developed by the Armenian Authorities as discussed in chapter 3. The following three main functionalities are being added to the existing financial management system:

- Firstly, the Treasury plans to provide direct access to its systems to program managers to record transactions and perform budget control. A pilot project has been started in the Yerevan Municipality to provide them direct access to the database of the automated software system “Treasury Operation Day” of the Central Treasury.
 - Secondly, the Treasury is taking steps to interface the database of the Budget department with its own database. The Treasury has entered into a contract with their application software vendor to establish a “mutual electronic integration of the budget formulation database owned by the application “LSBudget” in the Budget Department, and the budget execution database owned by the application “Treasury Operation Day”.
 - Thirdly the Treasury has contracted the development of internet-based software to register and monitor procurement contracts. It is envisaged that this software will be interfaced with the Treasury Operation Day and “LSBudget” systems.
110. The pilot in Yerevan municipality had yet to be fully implemented at the time of the mission, and contracts for delivery of the other two initiatives had just been signed.
111. **Given the time lag before a new GFMIS can be implemented and given the desire and need to further develop the systems, whether as an interim or permanent solution, two enabling activities can be considered.** These could be undertaken with a view to facilitate that (i) IT management capacity necessary is gradually and timely built up; (ii) PFM reforms can be piloted in advance of a possible GFMIS; (iii) data and process architectures necessary for GFMIS are completed early on, and (iv) interim software developments dovetail with a possible future GFMIS.
112. **Firstly, the ministry would benefit from developing a Ministry-wide strategic IT plan including data, process and technology architectures.** An initial deliverable could be an IT management policy framework, capacity building plan and security plan (modeled on ISO 27001 standards). Much of this work, particularly the technology architecture, has been already done as part of the Consultant study for the GFMIS mentioned above. However, data and process architectures need to be expanded to account for the requirements of the reform strategy; IT human resources, organization and management capacity expansion needs to be planned for; and IT management policy framework with respect to information quality, security and protection must be put in place. All these are prerequisites for successful introduction of integrated GFMIS, so there is every reason to start related work immediately.
113. **Secondly, develop an architecture for PFM systems and interim bespoke software to support the PFM reform strategy in advance of GFMIS.** An option could be to apply a service oriented architecture which allows interoperation of existing systems (LS Finance, LS Budget, Bankmail) with interim software developments and with future GFMIS. This approach would contrast with the piecemeal expansion of current systems being presently done. By breaking down process requirements of the integrated PFM system into web-based services and formulating an architecture of integration and collaboration of such services, a service oriented architecture allows building of interim bespoke software that (i) leverages the well tested expenditure control and funds transfer functionalities of the present software; (ii) allows piloting of key reforms such as program budgeting by leveraging low-cost, open-source software platforms, and (iii) provides the data and procedural specifications for configuration of the GFMIS, when available. Most importantly, by taking this step the Ministry of Finance would build up the internal capacity for procurement, contract management and future operation of the integrated GFMIS.

Box 17. INTERNATIONAL EXPERIENCE FROM INTRODUCING INTEGRATED FINANCIAL MANAGEMENT SYSTEMS

There are four main stages in the process of introducing an IFMIS: preparation, design, procurement, and pilot and roll-out. The successful implementation of this process requires three supporting elements: sound project management; adequate resources and complementary organizational development; and parallel improvements in business procedures and practices supported by a suitable legal and regulatory framework.

When designing a government IFMIS, it is critical to review the legal and regulatory framework and assess the necessary changes to the overall framework for public financial management, including the deployment and reporting of resources. Particular reforms that are critical include i) Structure of the budget and the accounts, ii) Main budgeting and accounting principles, iii) Cash management and iv) Control structure

IFMIS implementation should be seen as a public finance reform that affects how things are done across government. It requires changes in management and organizational structures. It requires changes in workflows. And, it requires changes in roles and responsibilities. Changing business processes is, therefore, a critical aspect of any IFMIS reform. This will require a review of all systems, functional processes, methods, rules and regulations, legislation, banking arrangements and related processes. New procedures will have to be established and standardized throughout government. New job descriptions will have to be formalized. The arrangements and systems for internal and external control of public financial management will have to be improved.

Change management strategy is also a key factor of success. It needs to be designed taking into consideration the change implications for diverse stakeholders, from politicians and senior managers to department heads, civil servants and the IT personnel who will support the new systems. A core team needs to be designated to manage the change, composed of people who can and are empowered to lead. This requires a strategy, a plan, with alternatives, with an aim to bring about the change. Overcoming resistance will happen through clear communication, education, training, and “quick wins” that demonstrate the benefits of change.

Particular challenges in course of implementation also include i) Government ownership and financial support, ii) Recruitment and sustainability of IT specialists in public sector, iii) Existence of a reliable countrywide network infrastructure, iv) Realistic ICT cost estimates to reduce procurement risks, v) Web based applications & open systems to reduce cost and duration of implementation, vi) Proper requirements for Records Management, Information/System Security and Digital Signature in design, vii) Coordination with e-Gov activities (interoperability & resource sharing) and viii) Project management, monitoring and evaluation skills

Sources: i) Integrated Financial Management Information Systems: A Practical Guide, USAID, 2008; ii) Diamond and Khemani, Introducing Financial Management Information Systems in Developing Countries, IMF Working Paper, 2005. Iii) Dener, Development of Application Software for IFMIS, Presentation on 4th IFMIS CoP Roundtable, 2007

4.1.6 Prerequisites for successful GFMIS Implementation

114. While the main role of GFMIS is to enable the broader reform process, international experience has shown that it also depends on those reforms for its success. This means that the deployment lead time (3.5 years) is neither fully in the critical path, nor idle time with respect to the reform process. The following pre-requisite institutional reforms would also need to begin in earnest in Armenia, with the involvement of all GFMIS stakeholders:

- The development of a service mentality and culture of transparency and accountability. This requires appropriate incentive policies and top-down leadership. If not already started, GFMIS will not meet expectations or contribute appropriately to the required culture change.
- A change in management strategy, business processes and skills development initiated by the time the system is introduced.
- Professional project management, starting with the procurement process for GFMIS.
- Strengthened internal capacity for information and technology management, to be in place before the system is procured. This involves developing an IT strategy with all architectural, organizational, human resources and policy framework elements. IT security policy and HR management in particular are aspects that must be firmly in place by the time the technology comes in.

115. The above considerations could be included in an ICT strategy for the Ministry of Finance.

Box 18. POSSIBLE ELEMENTS OF AN ICT STRATEGY FOR THE MINISTRY OF FINANCE

- Increase the focus on strengthening the IT management function. GFMS is a technically complex facility that requires professional, in-house IT management. An external maintenance and support contractor is necessary but not sufficient. The strategy should at a minimum suggest solutions to problems of staff retention, training and remuneration.
- Make explicit the desired ICT architecture. In so doing it could be considered, following further analysis, whether the ministry would be well served by requiring web services and service-oriented architecture, together with their associated W3C standards for software technology acquisition. This will ensure strategic integration.
- Develop within Treasury an approach to acting as a 'data warehouse manager' servicing the needs of various users and types of use from the database under its overall management and providing flexible forms of access to that data.
- To utilize non-proprietary software that can be changed and replicated at will by MFE.
- To design and engineer software for possible expansion and industrial strengthening.
- Allow flexible packaging of procurement. For example, to separate the procurement of hardware and application software.
- Revisit business process analysis and design in light of the final reform strategy. The specification of requirements for GFMS should reconcile BPR aspects of the strategy that assume public financial management reforms different from those ultimately sanctioned by the Government of Armenia.
- Reconsider infrastructure requirements in a government-wide context. Ministry of Finance could consider joining the Intranet project of the Armenian Government in lieu of setting up its own wide area network as presently proposed. Similarly, the data center component of the proposed GFMS infrastructure could be implemented through a government-wide facility, as many other countries are doing.

4.2 Capacity

- 116. Significant programs of training have been mounted in recent years and funded by both Government and donors.** However, these programs have tended to be focused on specific system developments and of a largely ad hoc nature. Capacity is about much more than just skill development and encompasses other issues such as personal development, career development, recruitment and retention.
- 117. There are two clear groups of people who need to receive capacity development in the context of the public financial management reform strategy.** Firstly, people whose main focus is on undertaking public financial management processes. Secondly, service managers who need to apply public financial management processes as a part of their broader function. The draft reform strategy recognises the need to develop the cadre of public financial management specialists on a more comprehensive basis than has been the practice. But proposed programs are still rather fragmented across the different functional groups which fail to address the need to give professionals more broadly based skills. And less attention is given to the development of public financial management skills among service managers. The stated aim of Government's draft reform is that public financial management reform should have a positive impact on policy/service delivery and this aim will be frustrated if the managers concerned are not made to feel comfortable with the financial management system as an ally to effective delivery rather than a hindrance. As well as process improvements, knowledge of how to use financial management systems in a positive way is the keys here.
- 118.** Much more needs to be done in this respect. Given high profile in the strategy, stage 1 of the strategy requires a significant level of investment in capacity if it is to be achieved.

4.3 Recommendations

119. The main recommendations of this section and their broad sequence of implementation are indicated in the table below:

TABLE 5. SUMMARY OF RECOMMENDATIONS ON CROSSCUTTING ISSUES

Reform area	Stage 1	Stage 2	Stage 3
GFMS	<ul style="list-style-type: none"> - Review existing Cost Estimate for COTS/ Consider modifications to achieve lower cost alternatives - Initiate decision on implementation of GFMS - Initiate procurement of GFMS - Carry out interim ICT improvements - Develop ICT strategy for MOF - Develop CT policy framework - Initiate Business Process Mapping 	GFMS Implementation	GFMS Implementation
Capacity	<ul style="list-style-type: none"> - Continue to expand skill building and professional development programs for PFM professionals across functional areas commensurate with reform roll out, e.g. budget analysis, accounting, modernized auditing techniques, etc. - Develop training program for Non-financial Managers 		

5. Reform scenarios, strategy and funding

5.1 Reform scenarios

120. **As a result of the analysis in previous chapters, a better understanding was developed of the specific areas of activity that need to be tackled to address the next phase of reform. However, two constraints will impact the ability to proceed with the activities identified for the first of three stages discussed in the preceding chapters.** These relate to i) the amount of resources available to implement the strategy and ii) the scale and phasing of development of a GFMIS system. These two things have a strong linkage in that the GFMIS development will be, by far, the largest cost item. Constraints on the availability of resources will have implications for what sort of system, if at all, will be implemented. This, in turn, would govern the form in which Stage 1 as envisaged can be implemented, the speed of its implementation and the robustness of Stage 1 as a platform for later stages.
121. **More work is needed to assess the costs of a GFMIS as mentioned in Section 5.1. However, three broad reform scenarios can be drawn up based on the current rough cost estimate and the discussed possibilities for scaling of a system.** Variations and combinations of each scenario could be developed.

5.1.1 Scenario 1 – Comprehensive ICT enabled business process reengineering

122. **Under this scenario, Stage 1 would proceed across the full range of activities identified as necessary in chapters 2-4.** Within it, cross dependencies, including between process development and capacity development would be managed within detailed work plans. It is estimated that completion would take 5-6 years with the overall timing and critical path determined very much by the pace of implementing the full GFMIS as defined in the current systems specifications developed by Corporate Solutions.
123. **Stage 1 objectives of ensuring a shift towards greater focus on responsibility for resource management, managed within adequate but streamlined controls, would be achieved.** The package of measures would deliver process and system changes that would address current budget execution weaknesses that frustrate effective service delivery, provide information appropriate to more dynamic forms of budget management and build the capacity of both financial management cadres and budget managers to respond to reformed systems and practices. While this is happening during Stage 1 it is proposed that further work on budget reforms should be confined to refining what has already been done rather than deepening its use which we feel would be premature until Stage 1 has been achieved.
124. Funding requirements for this scenario would depend on a revised cost estimate for a full GFMIS but would be substantial.

5.1.2 Scenario 2 – Intermediate ICT enabled business process reengineering

125. **A more limited development of the GFMIS system is possible, but it would have limitations for supporting the sort of process streamlining and information support envisaged as necessary under Scenario 1.** The chart of accounts would be extended in order to provide a better link between budget and accounts and address at least some of the management information needs envisaged as necessary to support managerial needs. But it would not be a vehicle for implementing the streamlined business processes envisaged as necessary under Stage 1 in order to allow managers to perform their budgets more effectively. There may be some scope for implementing that streamlining by adapting existing manual processes, but this is likely to be limited and to have a more uncertain impact. Some momentum towards Stage 1 objectives would be maintained and a better coming together of budget formulation, budget execution and accounting systems achieved. But the pace would be slower and it would be important to be realistic about what could be expected from managers responding gradually over a longer period of time. It would be important to understand that the type of system implementation envisaged under Scenario 2 could probably not be used later as a platform for implementing a full GFMIS. It would be necessary to start again, albeit with the benefit of experience gained from implementing the interim solution.

126. This scenario would imply using limited ICT funding available to (1) start doing the analytical (SOA) and business process requirements work necessary to both support reforms and underpin a possible future full GFMIS; (2) develop interim solutions based on this analytical work and on open source software platforms while GFMIS funding is secured.

5.1.3 Scenario 3 – Deepening select reform activities

127. **Scenario 3 is based on a highly restricted resource scenario of no funding for new ICT.** Under this scenario nothing more than simple bolt-on extensions to existing accounting/information systems would be possible. It would not be possible to significantly close the gap between the program based budget reforms that have already been introduced and the weak budget execution systems that exist. Under this scenario it would probably be wise to put the budget reforms into a form of “care and maintenance” in which they are kept alive, but not developed as envisaged to be the main focus of appropriation and monitoring. Some simple steps could be taken to tackle major existing areas of weakness in execution and control systems such as those applying to the considerable number of non-commercial entities. Capacity could be developed in areas such as IT management and for the audit cadre in preparation for a time when more substantial steps might be taken, but training for budget managers in ministries etc would be much more limited as constraints on their performance would still be severe.
128. **A key area of risk derives from the funding scenarios discussed above.** Scenario 3 would keep some progress going in limited areas, but would leave open the risk of degeneration in other areas of reform that are dependent on faster progress in tackling the areas of weakness identified. For example, the performance oriented budget reforms already introduced might begin to fall into disuse because they are not effective without the complementary reforms envisaged in the Reform Strategy. Scenario 2 would be more likely to keep momentum going, but runs the risk of a short life to the still substantial investment in interim solutions to IT needs.

5.2 Strategy¹⁷

5.2.1 Reform Approach

129. **Government has recognized that there is a need for a more coordinated and systematic approach if objectives described in the draft reform strategy are to be achieved.** Broadly, three different approaches to reform can be identified as relevant to Armenia at this stage:
- Reform planning and implementation can focus on separate function and processes with responsibility and accountability being anchored in individual functional departments of the Ministry of Finance. The Armenian approach has so far been largely of this type. Individual reforms have been identified by the ‘process owners’ within the administration who progress them based on their own perception of priorities and enthusiasms. As a way of starting there is nothing wrong in this sort of pragmatic approach. In fact, it may be the only way of creating momentum for countries that start from a low base and weak capacity.
 - Alternatively, focus can be on the combined impact of reformed processes on service delivery. This focus addresses the end purpose of reform. This approach requires attention to linkages between functional processes. In this approach, the reform strategy is driven not by initially targeting individual process reforms, but by identifying the characteristics required of the PFM system and only then deciding what further process reforms may be necessary to achieve each characteristic. Examples of these characteristics might be ‘more predictability in the resources available to those delivering service as a basis for planning service delivery’ or ‘strong accountability and transparency’. The feature of this approach is that it usually requires changes in several processes to come together in order to put each characteristic in place. It normally works best where the basics are already in place and can be considered fairly robust so that focus can be placed on the next wave of reforms that will draw those processes together to achieve positive impact.

¹⁷ This section 6.2 is in large parts copied from a technical note on “Public Financial Management Reform: Some Suggestions on strategy and next steps” from June 2009 drafted by Mr. Brooke, World Bank Consultant.

- A third approach focuses on deepening process based reforms but gradually introduces a service focus. As such, this is a hybrid of the two first approaches. It recognises that there are still some basics to be put in place and that it may be too soon to shift the emphasis from the drive of individual ‘process owners’ to achieve reforms in their areas of responsibility. But at the same time it seeks to add a broader dimension to reform that reflects its ultimate objectives. Adding this dimension may require new ways of working and new types of activity that begins to build a bridge between different process reforms and adds momentum towards achieving ultimate reform objectives.

130. This third hybrid approach is probably appropriate to the stage of reform that Armenia has now reached. It requires that implementation of the reform strategy builds from the specifics of what Armenia has already put in place and the need to address those remaining areas of identified weaknesses. But, at the same time, implementation of the strategy should begin to create a framework of linkages between reforms: i) Between individual functional reforms that need to combine in order to have an impact on ultimate objectives. ii) Between the need of service managers to be empowered to deliver policies and services using resources made available by PFM processes in a more effective way, and the need of the public service as a whole to achieve robust accountability and transparency. iii) Between PFM reforms and broader public service reforms.

131. In addition, expanded consultation and possibly involvement of the broader group of stakeholders to the budget process could be considered. It is important that further work to be done on the strategy is carried out in an inclusive process that ensures the participation and ownership of all relevant functional departments within the Ministry of Finance. The Minister has appointed a Working Group to undertake this work involving representatives from all departments and the group should continue to steer the further work required with active involvement of all departments and their heads. There is also a very strong case for consulting and involving key participants and stakeholders to the financial management process outside the Ministry of Finance, including in particular the President’s Office, Parliament and line/spending ministries to ensure that their concerns, capacity and needs are reflected in the strategy.

5.2.2 Reform management

132. For a reform strategy of this type to be effective, it will have to become an instrument of management. There are different models by which this is achieved in countries that adopt such an approach. Some examples of different approaches are:

1. The strategy is simply used as a reference point by the functional departments to get on with implementing those areas of activity for which they are responsible. Periodic reviews take place to check progress and of the continuing alignment of activity with the strategy.
2. The functional departments with lead responsibility in an area of activity set up a network involving other departments who they need to make contributory activity or whose work will be affected by proposed developments. The lead department acts as a ‘process owner’, but with appropriate participation. This option requires strong leadership from the process owning departments.
3. A steering group is established consisting of functional departments, often including representatives of other affected agencies such as line ministries. The steering group directs action in accordance with the strategy and monitors progress. Functional departments implement actions as mandated by the strategy.
4. A steering group is formed, but supplemented by a secretariat that acts as a bridge between the steering group and implementing departments i.e. between the strategy and the implementation activities. This secretariat consists variously of internal staff with appropriate experience and/or consultants hired in for the purpose.
5. As in 4, but the Secretariat takes a much more hands on role in directing implementation with the cooperation of functional departments. In this case, the secretariat is much larger and more powerful.

133. So far in Armenia, good progress has been made using mainly variants of option 1. But to move to the more integrated approach that seems to be necessary for the next stages of development one of the higher number options now seems more appropriate. Option 5 is more appropriate where there is weak implementation capacity in the functional departments, but it risks losing the engagement of those departments that must ultimately manage new systems and processes once they are introduced and this can become a big problem. Option 4 builds on the strong championship of reform that functional departments

have already shown, and retains that leadership in implementing activities, but provides stronger overarching mechanisms to link that activity back to an agreed strategy. Some variant of option 4 therefore seems the most appropriate for Armenia at this point. The steering group should include representatives of budget implementation agencies. The secretariat should be strong enough to rise above functional considerations to identify and anticipate problems and to advise the steering group of cross functional cooperation that may be necessary to bring progress in line with strategy. This probably implies a combination of experienced internal people and specialist consultants.

- 134. The internal organisation of Ministry of Finance is quite tightly consolidated in line with modern practice but problems do arise in achieving adequate communication and effective cross functional boundary working.** Cooperation will be critical to the suggested Stage 1 of the strategy. The key process and system developments discussed earlier such as the development of the financial management information system cannot be implemented effectively without it. If it doesn't happen the developments will either fail or seriously fall short of their development objectives.

5.2.3 Motivation and change management

- 135. Although it is less tangible, the motivation conveyed by reform/change can make or break it.** Attention is needed to both creating positive motivation, but also dealing with perverse incentives that cause people to resist change. Although pay is an issue, motivation does not resolve itself to that alone. Evidence from other countries suggests that improved freedom to manage, recognition of good performance and trust are also powerful motivators. No attention to these considerations is evident in the strategy as it is currently drafted.
- 136. Public organisations have fiduciary responsibilities and public finances need to be guarded from bad practice.** But excessive controls aimed at avoiding all risk often become a source of risk in themselves. Consideration might be given to offering a carefully balanced package of freedoms and flexibilities to pilot organisations that demonstrate effective implementation of financial management processes. That would allow for the potential of creating a positive spiral created by trust earned, conveyed and responded to, but in measured way that can be monitored and learned from.
- 137. Large scale reforms also need to have built into them from the start programs of change and risk management.** For example, the proposed financial management information system will be complex to deliver and will affect the jobs and interests of many. The impact needs to be considered and measures to create positive participation and to avoid or neutralise perverse incentives should be anticipated and considered from the start.

5.3 Funding

- 138. Different countries approach funding of financial management reforms in different ways, often dictated by practical circumstances and constraints as well as the availability of external support by development partners including the donor institutions.** Some variants for raising and managing implementation resources are:
1. Within Government budget as funds become available.
 2. By seeking donor support on a project by project basis.
 3. By seeking donor support on a project basis, but strongly directed from the overall strategy.
 4. Within Government budget supported by a form of multi-donor funding pool supporting comprehensive strategy implementation.
- 139. Usually, some sort of combination of these emerges. In Armenia it has largely been a combination of the first two options that has been used up to now.** The problem with this is that the different timescales and speed of implementation project by project will often pull against a more integrated approach to reform. What gets done depends on the willingness of external agencies to provide continuous funding and the relative strength of project teams.

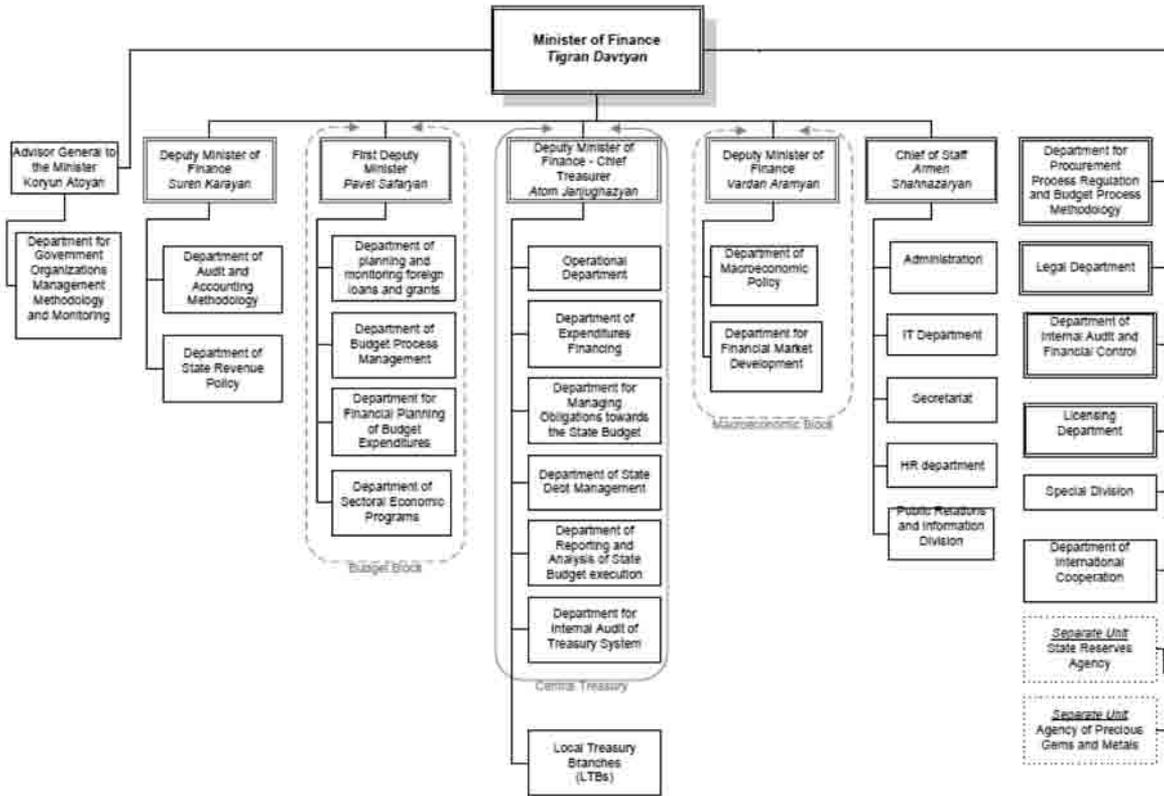
140. Option 4 has attractions as it puts the government in the driving seat in directing resources to areas of the strategy that are a priority and when they are required. An increasing number of developing countries adopt this approach with the cooperation of donors. Given the integrated nature of the next phase of financial management reform in Armenia, including the potential benefits to be accrued from a GFMS efforts could be put into seeking an overall funding envelope for comprehensive strategy implementation (option 4). If such efforts do not prove possible, option 3 might be the best way forward for now. If indeed option three is applied, donor dialogue with Government about funding components of activity should be primarily with the steering group and not with functional departments so that funding is sought and applied on a strategic basis. Project teams and consultants can then be left to deal with the functional departments for implementation.

5.4 Recommendations

141. The recommendations on Reform scenarios, strategy and components of a possible World Bank Loan precede the implementation of the reform strategy and thus the three stages:

- **Scenarios:** There is a very strong case for implementing a new GFMS in Armenia, The supporting arguments have been provided throughout this report. Scenarios two and three are second and third best solutions respectively; scenario three being a risky approach in the medium term.
- **Reform management/approach:** Focus on on deepening process based reforms but gradually introduce a service focus. At the same time, the strategy should begin to create a framework of linkages between individual functional reforms, between the need of service managers and the need of the public service as a whole to achieve robust accountability and transparency and between PFM reforms and broader public service reforms.
- **Change management:** Involve and consult budget users in the development and implementation of the reform strategy to ensure that reforms are guided by their ultimate objective – i.e. improvement of service delivery to citizens and users. Include a change management, including communications, strategy for design and implementation of reforms.
- **Funding:** The final strategy should be fully funded. Efforts should be initiated to raise additional donor funding for a new GFMS. Depending on whether that proves possible, the strategy should be finalized reflecting the fundable scenario.

Annex 1. Organization of the Ministry of Finance



Annex 2. Detailed GFMIS cost projections by Corporate Solutions

1. TOTAL SUPPLY AND INSTALLATION COSTS

Supply and Installation Costs	Pilot Cost Euro		Rollout Cost Euro		Total Cost Euro		Average Total
	Min	Max	Min	Max	Min	Max	
License Fees	922,900	1,035,050	1,603,200	2,796,250	2,526,100	3,831,300	3,178,700
Application	327,750	418,750	1,603,200	2,796,250	1,930,950	3,215,000	2,572,975
Others	595,150	616,300	-	-	595,150	616,300	605,725
Training	115,100	179,000	-	-	115,100	179,000	147,050
System Implementation services	1,015,000	1,526,000	203,000	305,200	1,218,000	1,831,200	1,524,600
Hardware Equipment	1,171,810	1,476,260	971,490	1,634,888	2,143,300	3,111,148	2,627,224
Other (Systems Documentation local language)	1,000	2,000	9,000	18,000	10,000	20,000	15,000
Total System Supply & Installation	3,225,810	4,218,310	2,786,690	4,754,338	6,012,500	8,972,648	7,492,574

2. TOTAL SYSTEM COSTS OVER 6 YEARS

Average Supply and Installation Costs	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Total
License Fees	685,283	293,693	549,931	549,931	549,931	549,931	3,178,700
Application	261,275	111,975	549,931	549,931	549,931	549,931	2,572,975
Other	424,008	181,718	-	-	-	-	605,725
Training	102,935	44,115	-	-	-	-	147,050
System Implementation services	889,350	381,150	63,525	63,525	63,525	63,525	1,524,600
Hardware Equipment	926,825	397,211	325,797	325,797	325,797	325,797	2,627,224
Other (Systems Documentation local language)	1,050	450	3,375	3,375	3,375	3,375	15,000
Total System Supply & Installation	2,605,442	1,116,618	942,629	942,629	942,629	942,629	7,492,574

Average Recurrent Costs (Support & Maintenance)	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Total
Software	-	-	390,947	453,719	623,097	792,476	2,260,240
Application	-	-	284,340	453,719	623,097	792,476	2,153,632
Other	-	-	106,608	-	-	-	106,608
Hardware Equipment	-	-	-	74,146	105,923	131,987	312,055
Technical services	-	-	135,000	81,000	67,500	67,500	351,000
Total Recurrent Costs	-	-	525,947	608,865	796,520	991,963	2,923,295

Average Telecommunication costs	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Total
Average Installation (Set-up) costs	71,217	71,217	71,217	71,217	71,217	71,217	427,300
Recurrent costs	640,977	640,977	640,977	640,977	640,977	640,977	3,845,860
Total Telecom Costs	712,193	712,193	712,193	712,193	712,193	712,193	4,273,160

Estimated Data Centre Costs	Min	Max	Average
Primary Data Center	220,000	400,000	310,000
Disaster Recovery Data Center	160,000	280,000	220,000
Total Data Centre Costs	380,000	680,000	530,000

TOTAL AVERAGE SYSTEM COST	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Total
Core System	2,605,442	1,116,618	1,468,576	1,551,493	1,739,149	1,934,591	10,415,869
Average Telecommunication costs	712,193	712,193	712,193	712,193	712,193	712,193	4,273,160
Estimated Data Centre Costs	530,000	-	-	-	-	-	530,000
TOTAL AVERAGE SYSTEM COST	3,847,635	1,828,811	2,180,769	2,263,686	2,451,342	2,646,785	15,219,029

Source: Corporate Solutions, GFMIS Implementation Strategy, Appendix A – Financial Projections, undated.

