



Moldova

Public Expenditure Review

Capital Expenditures: Making Public Investment Work for Competitiveness and Inclusive Growth in Moldova



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Capital Expenditures: Making Public Investment Work for Competitiveness and Inclusive Growth in Moldova

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Europe and Central Asia Region



THE WORLD BANK
Washington, D.C.

Currency and Equivalent Units

(Exchange Rate as of June 1, 2013)

Currency Unit	=	Moldovan Lei
USD 1.00	=	12.52 MDL

Weights and Measures

Metric System

Abbreviations

AIPA	Agency for Interventions and Payments in Agriculture	LTIS	Land Transport Infrastructure Strategy
CAP	Common Agricultural Policy	MDG	Millennium Development Goal
CID	Capital Investment Division	MoF	Ministry of Finance
CPA	Central Public Authorities	MTBF	Medium-Term Budget Framework
CPI	Consumer Price Index	NANFA	Net Acquisition of Nonfinancial Assets
DCFTA	Deep and Comprehensive Free Trade Agreement	NBM	National Bank of Moldova
DFID	Department for International Development	NBS	National Bureau of Statistics
DSA	Debt Sustainability Analysis	NDS	National Development Strategy
EC	European Commission	NPL	Non-Performing Loans
ECA	Europe and Central Asia	OECD	Organization for Economic Cooperation and Development
EFA-FTI	Education for All – Fast Track Initiative	PEFA	Public Expenditure and Financial Accountability
ENPARD	European Neighborhood Program for Agriculture and Rural Development	PER	Public Expenditure Review
EU	European Union	PFM	Public Finance Management
EUWI	European Water Initiative	PIM	Public Investment Management
FDI	Foreign Direct Investment	PPA	Public Procurement Agency
GDP	Gross Domestic Product	PPL	Public Procurement Law
GFS	Government Finance Statistics	PPP	Public Private Partnerships
GoM	Government of Moldova	SOE	State Owned Enterprise
HVA	High Value Added	TLS	Transport and Logistics Strategy
ICT	Information and Communications Technology	VAT	Value-Added Tax
IFI	International Financial Institution	VET	Vocational Education and Training
IFMIS	Integrated Financial Management Information System	WDI	World Development Indicators
LPA	Local Public Authorities	WHO	World Health Organization

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Introduction

This Public Expenditure Review (PER) for Moldova is the result of a body of programmatic fiscal work. This PER focuses on capital expenditure. It supports the first pillar of the Country Partnership Strategy (Improving Economic Competitiveness) and complements the 2012 Development Policy Operation.

In the context of economic recovery and stabilization, Government requested World Bank assistance in improving its capital allocation mechanism, as its fiscal consolidation program attempted to create space for critical infrastructure whilst gradually reducing the state's footprint in the economy. The programmatic fiscal analysis has been conducted in close coordination with Government counterparts, with ongoing analyses shared as presentations and policy notes, in a continuous dialogue.

A capital expenditure module was developed for the Moldova BOOST. The Moldova BOOST follows the national fiscal reporting methodology and includes information on the approved, revised and actual budgets broken down by government level, administrative units, sub-national spending units, economic and functional classification and financing source. The capital expenditure module expands the Moldova BOOST to the detailed object level and supplements it with performance information monitored by the Ministry of Finance. The BOOST databases are used in this report for the analysis of capital expenditure trends, distribution and efficiency and to suggest possible improvements in monitoring.

The report has four chapters. The first chapter presents the macroeconomic outlook and its implications for fiscal policy, particularly with respect to the capital budget. The second chapter presents the structure and classification of the capital budget as well as recent trends in capital expenditure levels and execution, and reviews the adequacy of resource allocations and utilization across sectors, given investment needs, national priorities and implementation capacity. The third chapter reviews public investment management processes and presents recommendations to improve the efficiency of public capital expenditure in Moldova. The fourth chapter discusses specific sector challenges and offers recommendations for improving capital expenditure outcomes.

Executive Summary

This report recommends ways to strengthen public investment processes, institutions and sector policies to achieve better outcomes for public capital expenditures in Moldova. While the budgetary and public financial management reform agenda is broad, improving public investment management in Moldova is a priority because of the special characteristics of multi-year public investment projects, the poor condition of much of the national capital asset stock and the importance of making space for greater and more efficient capital expenditure.

There are currently significant inefficiencies in the allocation and implementation of capital budgets. Inadequate appraisal does not ensure cost effectiveness, resources are spread thinly over small, fragmented and insufficiently prioritized projects, and implementation periods are long. In addition, sector-level inefficiencies constrain the effectiveness of public investment in promoting economic competitiveness and improving public services.

The Government is reforming public investment management. A law on public finance containing a new fiscal responsibility framework and provisions related to capital budgeting is being discussed. If approved in its amended form, it will give authority to a regulation on public capital investments that is also being prepared. These reforms could contribute to making public capital expenditure more effective. Still, the agenda in public investment management reform remains large.

This report suggests reforms in public investment management and sector policies to raise cost-effectiveness and allocative efficiency of capital expenditures. Three key areas of proposed reform are: (i) raise the quality of new projects by improving preliminary screening and project appraisal mechanisms; (ii) improve selection of new projects and ensure continuity of funding for ongoing projects through better prioritization and budgeting processes; and (iii) strengthen monitoring of project implementation for cost efficiency and timely delivery of public services. A summary of proposed public investment management and sectoral reforms is presented in Table 1 at the end of this executive summary.

Macro-Fiscal Context

Recent economic performance highlights the need for Moldova to continue improving export competitiveness and become more resilient to shocks. Real GDP growth averaged around 3 percent over the past five years, with considerable volatility due to external and weather-related shocks (Figure 1).

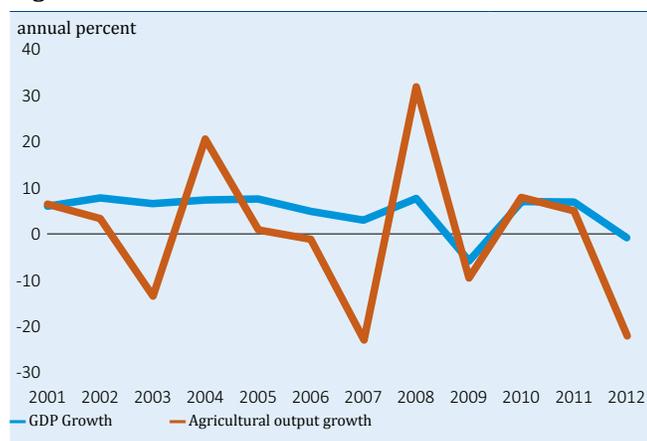
Over the past few years, Moldova has taken steps to reduce the footprint of the state in the economy. Under a three-year IMF-supported program, the general government fiscal deficit was reduced from 6.3 percent of GDP

in 2009 to 2.1 percent in 2012. At the same time, the decline in capital expenditures in 2009–2010 was reversed: capital expenditure rose from 5 percent of GDP in 2009 to 6.3 percent in 2012 (Figure 2).

However, fiscal pressures remain while investment needs are considerable. Pressures to increase recurrent expenditures are likely to continue, and could be compounded by political instability and institutional weaknesses. Meanwhile, urban and rural infrastructure is in an advanced state of disrepair. With a rapidly aging population, emigration and high vulnerability to shocks, sustained growth rests on raising investment, productivity and exports. Convergence with the European Union can anchor growth, but upgrades in infrastructure and the investment climate are needed to fully capitalize on the opportunities arising from greater integration.

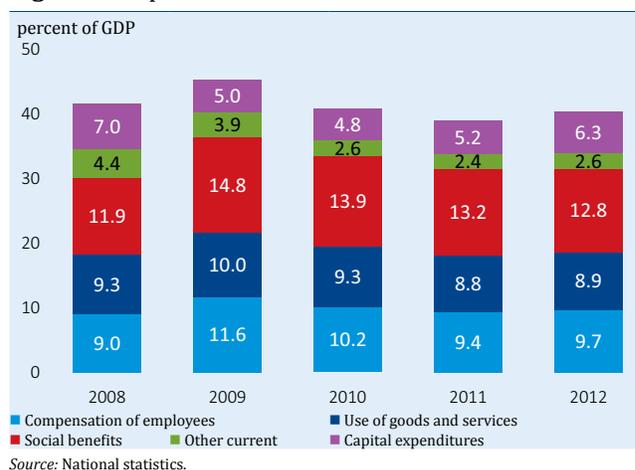
Within a constrained fiscal envelope in the short term, capital expenditures will therefore have to be made more efficient. The scope for raising revenues is limited and declining external assistance could restrict capital investment funding. Expenditures would need to be further adjusted to make more space for public investment in the medium term, as implementation and absorption capacity improves. Raising capital expenditure will require more adjustment in the recurrent budget, notably in the public sector wage bill and education.

Figure 1: GDP Growth, 2001–2012



Source: National statistics.

Figure 2: Expenditure Structure in Moldova, 2008–2012



Source: National statistics.

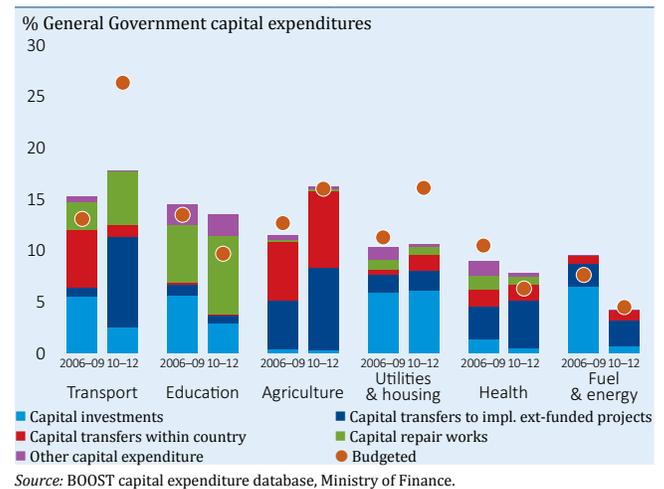
Current Trends and Allocation of Capital Expenditure

Domestically-financed capital investment decreased, while capital transfers and externally-financed projects increased. Domestically-financed capital investments have decreased both as a share of GDP (from 3.5 percent of GDP in 2006 to 0.7 percent of GDP in 2012) and as a share of total capital expenditure. This decline has been only partially compensated for by an increase in externally-funded capital expenditures, which mostly consist of investment projects. “Capital transfers within country” now account for a third of the capital budget, and mostly consist of transfers to the Road Fund for maintenance and investment subsidies to farmers. If the spending on road maintenance is considered recurrent spending (as it was before 2008), capital spending amounts to 5 percent of GDP in 2012, rather than 6 percent.

Trends in budgeted capital spending have been broadly consistent with Moldova’s strategic objectives, with the exception of the fuel and energy sector (Figure 3). In the transport sector, increased domestic funding for road maintenance in recent years has permitted the mobilization of external funds for investments in road rehabilitation and capital repairs. In agriculture, capital expenditures are mainly transfers to farmers (investment subsidies). Trends in education are consistent with the rehabilitation needs of an oversized general primary and secondary school network: investment has declined while capital repairs increased. In health, with scant domestic resources, external funding has dominated capital spending. Investment in the energy sector is held back by unresolved institutional bottlenecks. To ensure sustainable operation of energy and heating companies, and to attract much needed private investments, the sector requires governance and institutional reforms, debt restructuring and urgent investments.

Capital budget execution has improved since 2009, but significant variation by sector indicates implementation issues. The capital budget was under-executed by 33 percent in 2009, reflecting adjustment to the crisis and the elections, as Government reoriented spending towards wage and pension increases. The gap between the approved and executed capital budget narrowed to 4 percent in 2012. However, the budget was significantly under-executed in the transport and utilities sectors, reflecting the stalling of large domestic and donor projects in 2009–2010 (Figure 3).

Figure 3: Large Sector and Economic Shifts in Capital Expenditure Allocation and Execution



Improving Public Investment Management

Taking into account existing weaknesses and capacity constraints, the priority areas for public investment management reform are:

- Raise the quality of project preparation
- Improve budgeting to prioritize resource allocation and ensure continuity of funding
- Strengthen project implementation and monitoring

Raise the Quality of Project Preparation

Moldova should continue to develop an integrated framework for strategic planning. This would ensure greater consistency between sector plans, involve regular review and updating, and link planning to realistic

estimates of medium- to long-term resources. An overarching infrastructure strategy is worth developing, provided it is coordinated with sector strategies.

A more rigorous preliminary screening process can help develop a fiscally and strategically consistent project pipeline. This could improve the quality of the project pipeline significantly and would be an important first step in screening poorly designed projects or those that do not fit national or sector priorities.

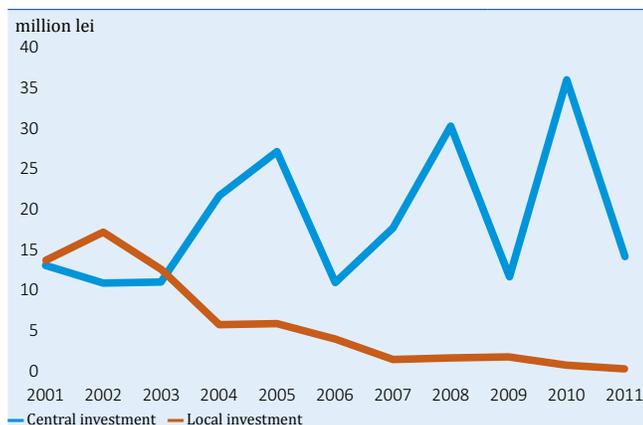
Major projects should be subject to a rigorous and systematic assessment of their economic feasibility and financial sustainability. Currently, domestically-funded capital investment is not subject to adequate and comprehensive appraisal, raising questions about economic viability and financial sustainability. A propensity to underestimate costs indicates optimism bias. Independent review of appraisal findings is important for reducing optimism bias and could be conducted by the Ministry of Finance Capital Investment Division.

Moldova could also adopt a common appraisal methodology for all projects. However, sophistication of methods should be proportional to the scale and complexity of projects and to available skills. Given the distribution of project values in Moldova and weak project appraisal capacities, an initial threshold of MDL 30 million is suggested for full feasibility studies involving cost-benefit analysis.

Improve Budgeting to Prioritize Resource Allocation and Ensure Continuity of Funding

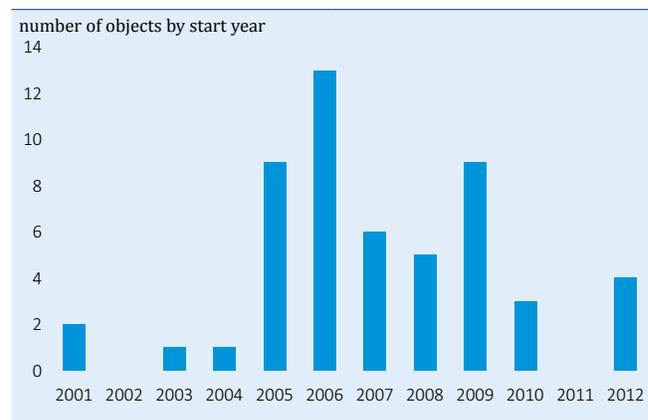
Projects are not sufficiently prioritized in the budget and funding for ongoing projects is inadequate. Most local projects proposed by Government are dropped by Parliament; those kept suffer budget cuts greater than 50 percent. Parliament introduces many small projects, the majority of which are small ‘capital repairs’ of existing facilities. Consequently, the capital budget is characterized by the proliferation of many small capital projects with low value, particularly at the local level (Figure 4). The lack of continuity of funding for ongoing projects lengthens implementation and delays improvements in services for the public. As a result, a significant overhang of slow-moving local projects remains to be cleared (Figure 5).

Figure 4: Average Spending on Investment per Project, 2001–2011



Source: Moldova Capital Objects BOOST database.

Figure 5: Start Dates for Local Projects



Source: Ministry of Finance: Informative Note to the budget submission.

To improve project selection and budgeting, it is recommended to:

- a. Consider granting local governments more responsibility for allocating local capital expenditures. However, decentralization of decision-making for capital expenditure would require careful consideration of local government capacities. It would also need to be designed in a way that it is not in conflict with rationalization objectives in sectors with significant excess capacity (notably health and education).
- b. Prioritize completion of ongoing projects during budget preparation and further develop a medium-term budget framework (MTBF). A capital baseline (estimated funding requirement for ongoing projects) should be calculated at the beginning of the budget preparation process and as part of setting MTBF ceilings. New projects should then compete against each other for funds remaining within capital ceilings once the capital baseline is met.
- c. Strengthen the Ministry of Finance's gate-keeping role in the budget process. This would yield a more credible, disciplined capital budgeting process with fewer poor quality projects introduced into the budget without following due process and lacking a positive appraisal decision.

Strengthen Project Implementation and Monitoring

Public investment could be made more efficient by actively monitoring the financial and non-financial performance of projects. Improving monitoring must be realistic and appropriately sequenced, and with a clear idea about what needs to be monitored at each level in the system. Monitoring at the level of spending ministries is not yet well developed, so the Ministry of Finance may need to take the lead in developing improved systems, at least initially. In the short term, monitoring could be enhanced by adding up-to-date information (e.g. total estimated cost and estimated completion date) to existing reporting at low cost, yielding better management of total project costs and earlier identification of implementation problems.

Sequence of Reforms

The proposed reforms need to be sequenced to take into account implementation capacity and expected benefits. The initial focus could be on the largest projects and on critical implementation issues (e.g., budget and timeliness). In the long term, asset management systems could be developed (beyond the road transport sector) to help identify infrastructure investment requirements and optimal maintenance expenditure needs. Additionally, in the longer term, a system of ex post evaluation would leverage the experiences of past projects to inform identification and implementation of follow-on projects.

Organizational arrangements will have to be chosen to implement these reforms. This requires in particular deciding the role of the Ministry of Finance and line ministries in screening, appraisal, review and monitoring, and ensuring adequate capacity is built through training at the various levels. Fostering demand for better processes,

including by more transparency and responsive monitoring systems, may help motivate performance improvements and sustain a result-oriented focus.

Sector-Specific Policy Recommendations for Improving Capital Expenditure Outcomes

In the *transport* sector, given resource constraints, it is especially important to further improve strategic guidance, appraisal and implementation:

- a. Clearly prioritize investment projects based on objective criteria in the final version of the Transport and Logistics Strategy to be adopted in 2013, so that available resources can be directed to priority projects with the highest expected economic and social impact.
- b. Implement the new maintenance regime for roads as a first step towards raising efficiency.
- c. Improve the local roads network by strengthening local government capacity (notably for planning, programming and executing road maintenance and rehabilitation), as well as increase local resources and establish clear rules for local road maintenance and rehabilitation allocations. External funding for improving local roads may be needed, particularly for priority local roads linking consolidated schools and health centers with the surrounding areas.

In the *utilities and housing* sector, strengthening implementation capacity is key:

- a. Improve public investment management to raise the efficiency of investment in the water and sanitation sector. Emphasis should be placed on strategic guidance (developing master plans), appraisal (feasibility studies and environmental impact assessment) and implementation.
- b. Strengthen the procurement and administrative skills of local governments and utility companies to increase absorption of donor funds. To maximize the use of available resources, technical standards and guidelines for water and sanitation infrastructure design, construction and operation should be developed or revised.
- c. Address governance and public service delivery issues associated with the transfer of responsibilities for water and sanitation services to municipalities in the 1990s by pooling resources and capacities, searching for economies of scale and exploring ways to facilitate access to funding for local service providers.

Preliminary screening, project selection and monitoring are particularly relevant for the *education* sector:

- a. Continue optimization of the secondary school network to redirect funds towards quality enhancements in consolidated schools and raise access to quality pre-school education.
- b. Prioritize and improve screening to ensure capital spending helps provide equal opportunities. The proliferation of small projects with little preparation, interrupted funding and slow completion is especially

acute in the education sector. Developing a pipeline of projects that meet objective selection criteria will help prioritization based on needs and equity.

- c. Improve monitoring, notably with non-financial indicators and a more programmatic approach, to raise efficiency by linking inputs to outputs and outcomes.

In the *health* sector, better strategic guidance, project appraisal and selection and monitoring and evaluation can improve equity and efficiency:

- a. Strengthen strategic guidance through a health care sector delivery master plan with clear priorities and develop a project appraisal framework.
- b. Rationalize the hospital network to improve efficiency and equity in healthcare access, in accordance with the plans developed by the Government with support from donors and the World Bank. This would entail centralizing decisions related to capital investment for hospitals and major equipment. The objective is to create regional referral hospitals and to re-profile the hospitals from neighboring raions into long-term care facilities.
- c. Establish integrated information systems to overcome fragmentation and lack of coordination as part of sector modernization.

In the *agricultural* sector, evaluate past investment subsidy programs, appraise new programs and develop responsive monitoring systems:

- a. Evaluate past and ongoing programs to develop a new strategy for agriculture and rural development with more selective investment subsidy programs and a strategic, focused approach to fostering market competitiveness and integration. Currently, it is not clear that subsidies are effectively and equitably supporting investment and innovation.
- b. Develop a multi-year program—rather than a one-year program—to stabilize expectations of the private sector and improve planning, implementation and evaluation.
- c. Consider equity in investment subsidy allocations and the inclusion of prospective smaller-scale farmers. Targeted support to producer groups is an important vehicle for strengthening small farmers' capacity to access markets and thus improve incomes.
- d. Include targeted instruments in agricultural support programs dealing with the shortage of human capital, output volatility and climate change patterns, with a strong market focus.

Table 1: Summary of Proposed Priority Reforms

Proposed Reforms	Expected Impact
<i>Strengthening Public Investment Management</i>	
Begin preliminary screening of project concepts and formalize the decision to proceed to preparation	Improved policy relevance; resource savings
Systematically analyze the economic feasibility and financial sustainability of a small number of the highest-value projects	Increased efficiency
Introduce a formal appraisal decision in the project cycle with a positive decision necessary, but not sufficient, for budget funding	Improved accountability
Make the Capital Investment Division responsible for independent review of appraisal findings	Fewer projects with cost overruns or unrealistic benefits
Empower the MoF to turn down requests for budget funding for projects that have not followed due process and lack a positive appraisal decision	A more credible capital budgeting process with fewer poor quality projects
Review options for conditional capital transfers to local public authorities and formulate reform strategy, taking into account sector network rationalization where applicable	More efficient decision-making
Improve reporting on project implementation	Better management of total project costs and earlier identification of implementation problems
Introduce strengthened project completion reviews for a small number of high-value projects	Improved identification and implementation of follow-on projects
<i>Transport: Rehabilitating Roads and Protecting Asset Value</i>	
Clearly prioritize road investments in Transport and Logistics Strategy	Strategic guidance directing available resources to the most efficient uses
Implement the new maintenance regime for roads	Efficiently protecting rehabilitation gains
Strengthen local government capacity for planning, programming and executing local road maintenance and rehabilitation works	Enabling school and hospital network optimization
Pursue institutional reforms for railway and air transportation	Enabling infrastructure upgrades
<i>Agriculture: Better Targeting Investment Subsidies for Inclusive Growth</i>	
Review results of ongoing investment programs	More selective program
Refocus investment subsidies	Greater innovation, market integration and farmer inclusion
Introduce new cross-sector programs (compliance with EU food safety and quality requirements, a climate change package, and deeper support to young farmers setting up their own farms).	Strengthened market focus, climate change adaptation, attraction of young farmers
<i>Utilities: Improving Water and Sanitation Outcomes</i>	
Improve strategic guidance by developing master plans	Improved efficiency
Introduce project appraisal with feasibility studies and environmental impact assessment	Improved efficiency
Strengthen procurement and administrative skills of local governments and utility companies. Develop or revise technical standards and guidelines for water and sanitation infrastructure	Increased absorption of donor funds
<i>Education: From Network Optimization to Quality Improvements</i>	
Continue optimization of the secondary school network	More resources for quality enhancements
<i>Health: Optimizing the Network to Improve Quality and Efficiency</i>	
Rationalize the hospital network	Greater efficiency and equity in access to quality healthcare
Strengthen strategic guidance with a health sector delivery master plan	Clear priorities
Establish integrated information systems	Better coordinated IT systems

Macroeconomic Outlook and Implications for Fiscal Policy

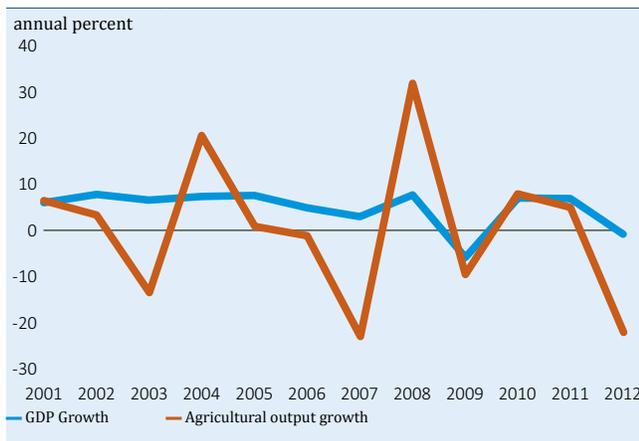


A. Macroeconomic outlook

Recent Economic Performance

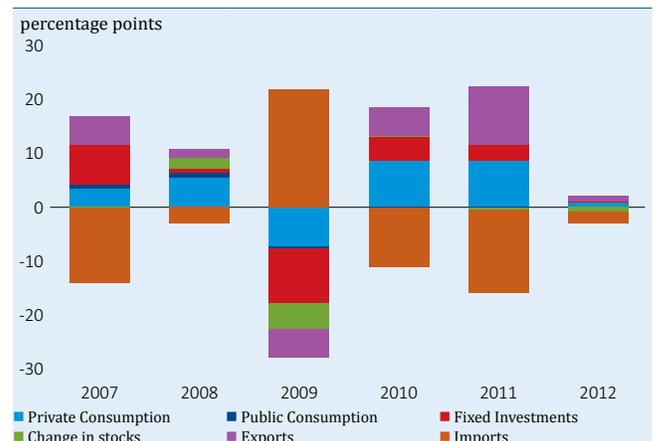
Moldova enjoyed a rapid recovery in 2010–2011. Following the 2009 recession, Moldova initiated reforms aimed at restoring macroeconomic stability and accelerating growth through improved competitiveness. GDP grew by 7.1 percent in 2010 and 6.4 percent in 2011, after a 6 percent contraction in 2009 (Figure 1.1). Under favorable external conditions, remittances recovered (although still not to pre-crisis levels)¹ and export growth was strong (Figure 1.2).

Figure 1.1: GDP Growth, 2001–2012



Source: National statistics.

Figure 1.2: GDP Growth Decomposition in Moldova



Source: National statistics and World Bank staff estimates.

Poverty was stable during the 2008/2009 crisis and started declining in 2010. Poverty rates² remained stable around 26 percent in 2009 owing to a large (and fiscally unsustainable) counter-cyclical stimulus that raised

1 Thousands of Moldovans emigrated for work over the last few years following nearly a decade of economic stagnation in their home country. At about 40 percent of the labor force, Moldova’s emigrant population is in relative terms among the largest in the world. As labor fled abroad, Moldova became one of the world’s most remittance-dependent countries. Remittances expanded from 11.5 percent of GDP in 2000 to 30 percent by 2008.

2 Poverty headcount ratio at the national poverty line (percent of the population); extreme poverty rate is the share of population below a minimum level of food consumption, expressed in energy value (2282 kcal/day).

pensions, social assistance benefits and public sector wages. The poverty rate fell to 21.9 percent in 2010 and 17.5 percent in 2011 (Figure 1.3) on the back of strong growth in agriculture, recovering remittances and improved targeted social assistance.

Growth stalled in 2012 as a result of worsening external conditions and adverse weather. Real GDP declined by 0.8 percent in 2012 as the escalating Euro area sovereign debt and banking crisis affected demand for Moldova's exports and remittances, and as drought cut agricultural production by 22 percent.

Figure 1.3: Poverty Rates in Moldova, 2006–2011

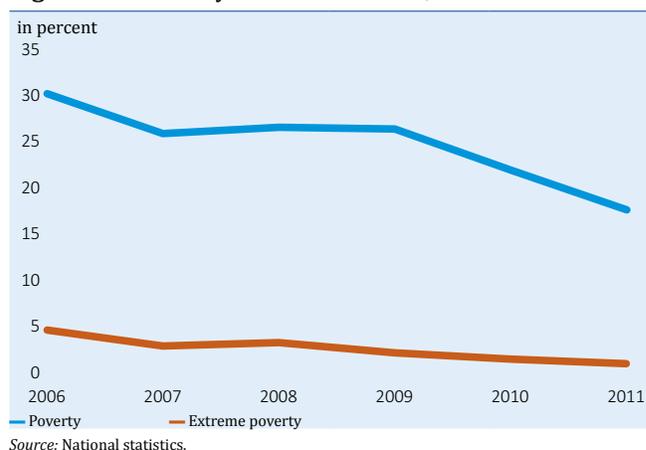


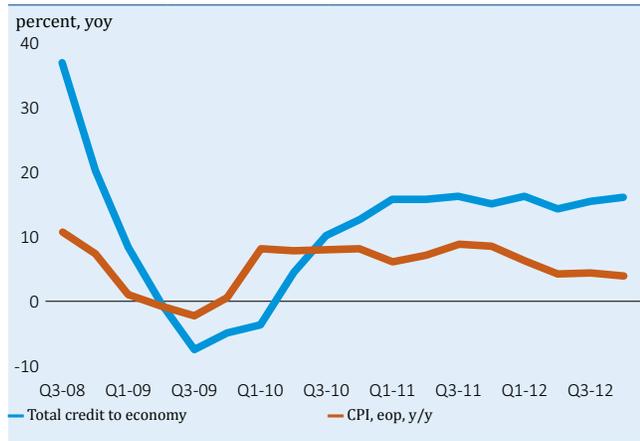
Table 1.1: Main Macroeconomic Indicators, 2006–2012

	2006	2007	2008	2009	2010	2011	2012
Nominal GDP, MDL billion	44.8	53.4	62.9	60.4	71.9	82.3	87.8
<i>Real growth rates:</i>							
GDP, % growth	4.8	3.0	7.8	-6.0	7.1	6.8	-0.8
Consumption, % growth	8.0	3.9	5.7	-6.9	7.3	7.3	0.9
Gross fixed capital formation, % growth	21.3	25.5	2.2	-30.9	17.2	13.0	0.4
Export, % growth	1.1	10.5	3.4	-12.1	13.7	27.4	2.3
Import, % growth	9.1	14.6	2.9	-23.6	14.3	19.3	2.5
Real effective exchange rate (2005 = 100)	102.8	111.5	132.8	135.4	127.2	134.7	140.0
GDP deflator, % growth	13.4	15.9	9.2	2.2	11.1	7.4	7.6
CPI, % average	12.7	12.3	12.7	0.0	7.4	7.6	4.6
Current account balance, % GDP	-11.4	-15.3	-16.1	-8.2	-7.7	-11.3	-7.0
Remittances (net inflows), % growth in USD	28.8	26.8	26.5	-37.4	13.2	21.7	3.0
International reserves (USD million)	776	1,334	1,672	1,480	1,718	1,965	2,512
Terms of trade, % change	-4.6	-1.2	-7.6	0.0	0.0	-1.4	-0.8
FDI in national economy (net inflows) (% GDP)	7.6	12.3	11.7	2.7	3.4	4.0	2.2
Budget revenue, % GDP	39.9	41.7	40.6	38.9	38.3	36.6	38.2
Budget expenditures, % GDP	40.2	41.9	41.6	45.2	40.8	39.0	40.3
Fiscal balance, % GDP	-0.3	-0.2	-1.0	-6.3	-2.5	-2.4	-2.1

Source: National statistics, IMF IFS and World Bank staff calculations, joint IMF and World Bank DSA update of 2012.

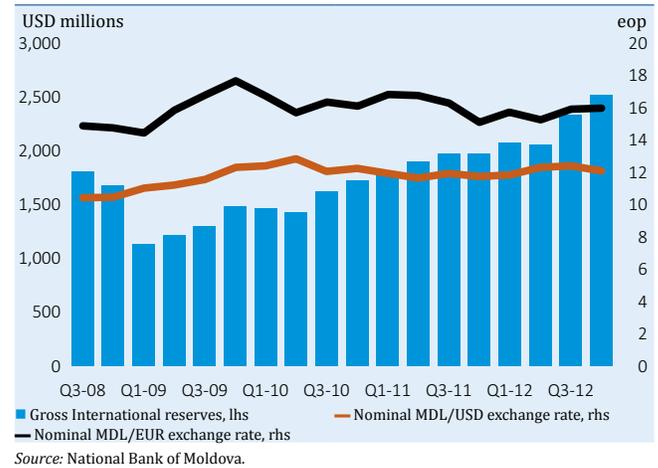
Macroeconomic management has improved. The Government started to implement an IMF-supported reform program in early 2010 and took corrective policies after the 2009 recession to address macroeconomic vulnerabilities. Moldova has maintained flexible exchange rates and the authorities have managed to reduce the rate and volatility of inflation. Since 2010, the National Bank of Moldova (NBM) has implemented inflation targeting, with a main CPI inflation target of 5 percent (Figures 1.4 and 1.5).

Figure 1.4: Private Sector Credit and CPI, 2008–2012



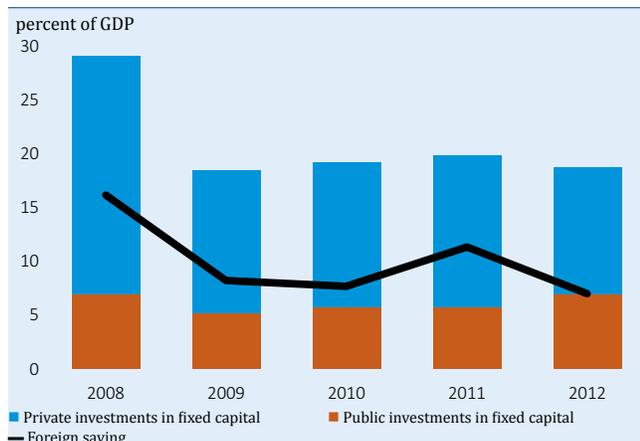
Source: National Bank of Moldova.

Figure 1.5: Exchange Rates and Foreign Exchange Reserves



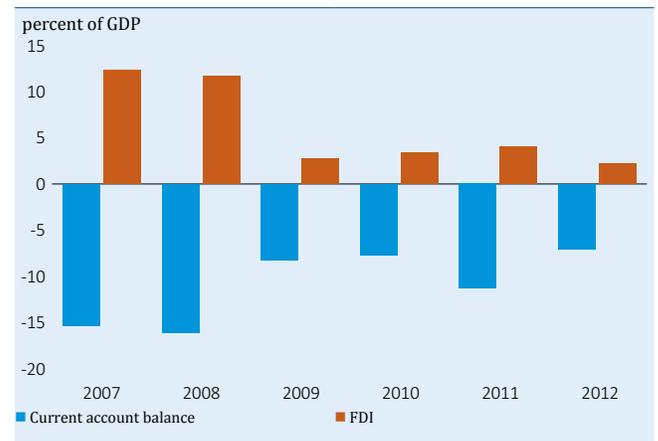
Source: National Bank of Moldova.

Figure 1.6: Investment and Savings



Source: National statistics.

Figure 1.7: Current Account and Foreign Direct Investment



Source: National authorities, World Bank staff calculations.

The current account deficit is financed by private sector borrowing and official financing to the public sector. While the trade deficit remained large, export growth outpaced import growth in 2011 (27.4 percent versus 19.3 percent), following liberalization measures to facilitate agriculture exports.³ However, in 2012 export growth decelerated and exports declined in y/y terms in 2012Q4. Remittances recovered partially in 2010 and 2011, but were again hit by the Euro-zone crisis in 2012. Foreign direct investment (FDI) remained much lower than before the crisis, and further decelerated in 2012, underscoring the importance of attracting investment to achieve a sustained recovery and spur modernization. Foreign exchange reserves reached USD 2.5 billion at the end of 2012, exceeding the pre-crisis level and covering almost five months of imports (Figures 1.6 and 1.7).

3 Including a lifting of the ban on grain exports in early 2011.

Macroeconomic Prospects

GDP is expected to grow by 4–5 percent in 2014–2015, but Moldova remains vulnerable to a variety of shocks in a fragile global environment. Inflation is expected to be within the NBM target of 5 percent +/- 1.5 percent. Higher and more resilient growth hinges on continuing to implement reforms to improve the investment climate (see Box 1.1).

Box 1.1: Supporting Competitiveness and Growth in Moldova: the Reform Agenda

With a rapidly aging population, high emigration, structural imbalances and vulnerability to external shocks, sustained growth rests on raising investment, productivity and exports. Before the 2008/09 crisis, a decade of growth with weak job creation led to a cycle of migration, remittances, exchange rate appreciation, declines in tradable sectors, joblessness, and thus more migration. A heavy reliance on remittance-funded consumption and housing construction leaves the economy vulnerable to changes in the external environment and significantly undermines Moldova's long-term competitiveness. As Moldova's workforce declines with an aging population, there will be fewer migrants and the contribution of remittances to future economic growth will gradually decline.

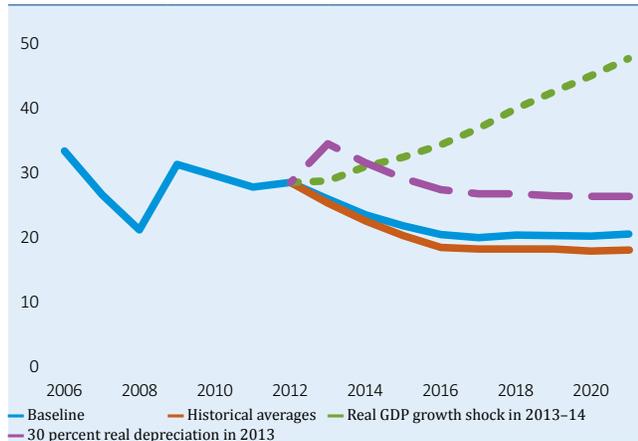
Convergence with the European Union can anchor growth, but infrastructure and investment climate upgrades are needed to fully capitalize on the opportunities arising from greater integration. Moldova enjoys market proximity to both the EU and the CIS. The Government has accelerated progress on the EU-Moldova Deep and Comprehensive Free Trade Agreement (DCFTA) and maintains its objective of EU accession. Accordingly, the National Development Strategy calls for major investment in national and local road infrastructure, energy efficiency and power generation. In addition, reforms and investments in public services and infrastructure that support agro-based exports—such as food standards and safety, irrigation and cold storage—and stimulate the ICT sector are priorities to facilitate access to the EU market.

Source: Government of Moldova (2012). *Moldova 2020 National Development Strategy: 7 Solutions for Economic Growth and Poverty Reduction*. The World Bank (2011). *After the Global Crisis: Promoting Competitiveness and Shared Growth. Moldova Country Economic Memorandum*.

The current account deficit is expected to remain above or close to 10 percent of GDP in the medium term. Provided that structural reforms and investment climate improvements continue, higher value-added exports would help narrow the trade imbalance over time, and FDI would gradually increase. Remittance growth is expected to be modest.

Significant fiscal pressures remain, which could be compounded by political instability (see section B below). In addition, Moldova remains vulnerable to changes in import energy prices with critical effects on social assistance expenditures, as well as on tariffs, debt accumulation and arrears in public utility companies.

A favorable public debt outlook but high private debt leaves room for modest borrowing to fund priority projects, provided that borrowing remains prudent and prioritized. While the debt sustainability analysis (DSA) framework indicates a low risk of debt distress, overall debt sustainability is vulnerable to a prolonged adverse growth shock. Public and publicly guaranteed (PPG) debt has been steadily declining and stood below 30 percent of GDP at the end of 2012, supported by prudent fiscal policy. Private external debt is, however, close to 45 percent of GDP and is expected to increase over the medium term, with a rising share of short-term debt. PPG debt analysis shows high sensitivity to a shock in output growth (Figure 1.8) while total external debt is most sensitive to a one-time nominal depreciation shock (Figure 1.9).

Figure 1.8: Public and Publicly Guaranteed Debt Dynamics as a Share of GDP**Figure 1.9: External Debt Dynamics as a Share of GDP**

The macroeconomic risks to this outlook are substantial. First, the Euro area crisis could worsen, undermining Moldova's exports and remittance flows. Second, a negative oil price shock could push Russia's economy into a recession, resulting in a significant decrease in remittances and export demand from Russia. Third, large structural current account deficits make Moldova vulnerable to variations in external financing flows and changes in donor and investor sentiment. In particular, slippages in implementing macroeconomic and structural policy reforms could potentially reduce donor support and complicate financing the deficit. Fourth, the agriculture sector (accounting for 13 percent of GDP and 28 percent of employment in 2009–2011) is susceptible to weather-related risks such as drought or floods, which can affect macroeconomic and fiscal balances and the livelihoods of the rural poor. Fifth, an increase in non-performing loans (NPLs) could further worsen the capital adequacy ratio of some public financial institutions and weak governance could result in additional fiscal pressures.⁴

B. The fiscal policy challenge: supporting growth and competitiveness with significant budget and institutional constraints

The 2010–2012 Fiscal Adjustment Stabilized Capital Expenditures

Mounting imbalances and the impact of the crisis necessitated a sizeable fiscal adjustment after 2009. Between 2001 and 2008, increases in government spending and reductions in tax rates worsened the structural deficit. In 2008–2009, the effects of the global financial and economic crisis, combined with increases in wages

⁴ NPLs increased to 15 percent in mid-2012, reflecting weakening economic activity and worsening balance sheets of some banks, including the majority state-owned Banca de Economii (BEM). BEM, which accounts for 13 percent of total assets in the banking sector and holds the largest number of individual deposits, requires urgent measures to repair its balance sheet and improve risk management practices.

and pensions in an electoral context, led to a sharp deterioration of the fiscal balance: the general government deficit increased to 6.3 percent in 2009, up from a 0.5 percent average deficit in 2006–2008 (Figure 1.10).

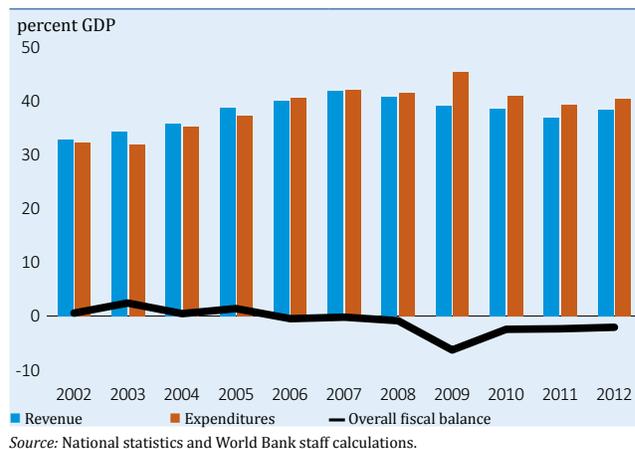
The sharp increase in wages and social benefits in 2009 came at the cost of cutting capital expenditure at both the central and local government levels. Even before the crisis, capital expenditure had been falling as a share of GDP, while a continued decline in road maintenance was rapidly deteriorating the national asset stock. Overall, capital expenditure⁵ fell from an annual average of 5.6 percent of GDP in 2005–2008 to 4.9 percent in 2009–2010.

The adjustment program started in 2010 restored fiscal sustainability. This was achieved under a three-year IMF-supported program (2010–2013), which included tax policy reform and a rationalization of current expenditures while increasing public investments and targeted social spending. The general government fiscal deficit decreased from 6.3 percent of GDP in 2009 to 2.4 percent in 2011.

In 2012, revenue shortfalls due to tax under-collection, lower growth rates and lower external grants have required further adjustment. In the first half of 2012, revenue collection underperformed relative to initial plans due to weakening economic growth and deteriorating tax compliance. In particular, VAT collections, excises and external grants were lower than planned. Government has been addressing these developments by introducing new revenue measures and pursuing tax reforms, including the reintroduction of the corporate income tax in 2012 and beginning to align excise rates with EU minimum requirements. At the same time, VAT cash refunds for investment were extended. Accordingly, the budget deficit (including grants) fell to 2.1 percent in 2012.

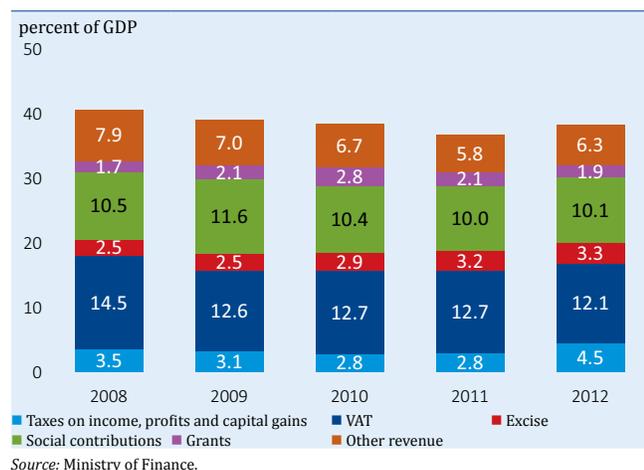
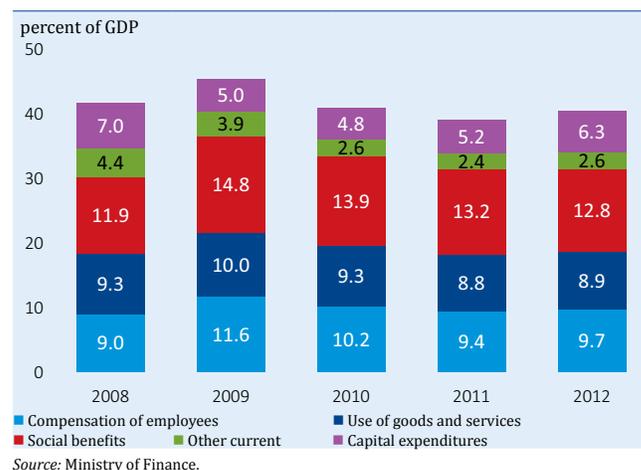
While the adjustment has reduced the state's footprint in the economy, the decline in capital expenditure has been reversed. General government budget revenues declined⁶ from 38.9 percent of GDP in 2009 to 36.6 percent in 2011 (Figure 1.11). With an already high tax burden and weak tax collection, adjustment has mainly been achieved by containing expenditures. During the economic growth in 2010 and 2011, Government controlled expenditure, notably reducing transfers to households and subsidies as a share of GDP. General government recurrent expenditures fell from about 41 percent of GDP at the peak of the global financial crisis in 2009 to about 34 percent in 2012. Public wages declined from double digits to about 9.7 percent of GDP in 2012. The Government also undertook reforms to improve efficiency, especially in the education sector (school network rationalization) and in social assistance (introduction of a new targeted program and reduction of previous categorical compensation schemes). Capital expenditure, meanwhile, increased to 5.2 percent of GDP in 2011 and 6.3 percent in 2012, recovering from a 4.8 percent low in 2010 (Figure 1.12).

Figure 1.10: General Government Fiscal Balance, 2002–2012



⁵ Measured as net acquisition of non-financial assets, consistent with GFS 2001.

⁶ In 2012, both revenue and expenditure went up as a percentage of GDP, as the contraction in the agriculture sector had a much larger effect on total output than on budget revenue.

Figure 1.11: Revenue Structure in Moldova**Figure 1.12: Expenditure Structure in Moldova, 2008–2012**

Going Forward: Improving the Efficiency of Capital Expenditure and Making Space for More Public Investment

Maintaining fiscal sustainability will be challenged by the institutional and social context. Large energy sector arrears, political instability within the ruling coalition, institutional weaknesses (notably the weight of special interests on tax policy) and reliance on exceptional foreign financing pose risks and threaten reforms. Social pressures and demographic challenges, including existing commitments on social insurance and pensions, will test fiscal sustainability. Pressures to increase recurrent expenditures are therefore likely to remain strong. Institutional weaknesses are reflected in tax collection issues and, together with the country's vulnerability to external shocks, will continue to fuel uncertainty.

Addressing social challenges and strengthening institutions while maintaining the EU integration and pro-market reform agenda will be key to social stability and economic development. The new law on public finance with a new fiscal responsibility framework will be a step in this direction, by introducing rules-based budgeting and increasing fiscal discipline and transparency.

Declining external assistance could further reduce general government revenue and weigh on capital investment funding. Grants from external donors, mainly from the EU, amounted to about 2 percent of GDP or 5 percent of total revenues in 2011. A downward trend in external grants would directly affect capital expenditures, which have a significant external funding component (35 percent of the total in 2011).

The scope for raising overall revenues is limited. Tax revenue is already high as a percent of GDP, in comparison with countries in the region (Figure 1.13). Limited possibilities for raising revenues include real estate taxes, VAT (because it is the largest revenue source and there are numerous exemptions with zero or reduced rates) and excise taxes. In 2013, the Government adopted a rule indexing the growth of excise tax rates on fuel to at least the growth rate of nominal GDP, which should lead to convergence with EU rates and will improve funding for the transport

Figure 1.13: Comparative Budget Revenue Structure in Europe and Central Asia, 2011

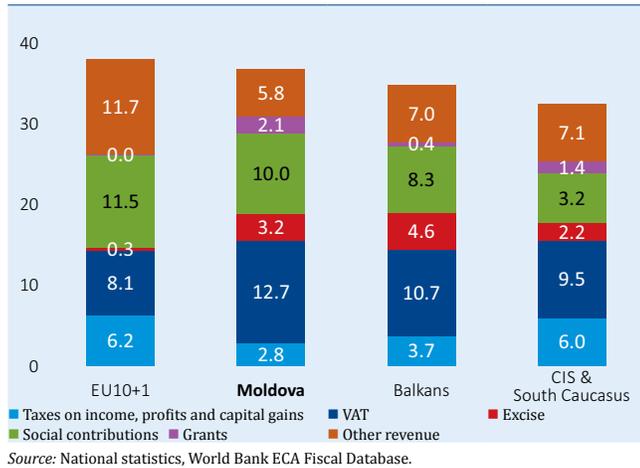
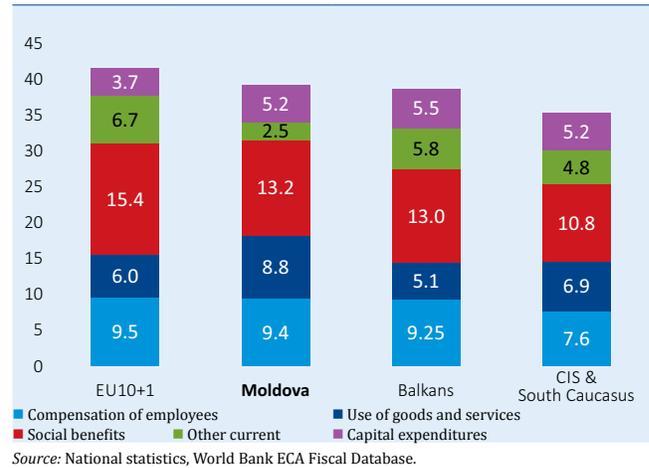


Figure 1.14: Comparative Budget Expenditure Structure in Europe and Central Asia, 2011



sector through the Road Fund. Nevertheless, the main (albeit longer-term) possibilities for raising revenue should not be through raising rates, which can reinforce compliance problems, but improving collection and therefore tax administration.

In this context, capital expenditures will have to be made more efficient within a constrained envelope in the short term. Investment needs are considerable. With very limited fiscal space to increase capital expenditure, the Government strategy requires considerable public investment, particularly in energy efficiency and road transportation. At the moment, these objectives are underfunded although, due to implementation capacity, budgetary constraints may not be binding yet (see Chapter 2).

Further expenditure adjustment will be needed to make space for more public investment in the medium term. Expenditure levels remain high and inefficiencies are crowding out productive expenditures in infrastructure, public services and targeted social assistance. The objective of the 2013–2015 Medium-Term Budget Framework is to create fiscal space for capital expenditure around 6 percent of GDP, in line with improved implementation capacity. Raising capital expenditure to these levels will require more adjustment in the recurrent budget. Some recurrent expenditure could be further rationalized. The public sector wage bill at the central government, and particularly at the local government levels, remains high. Education sector inefficiencies continue to be large and further education reforms could improve efficiency in the pre-primary and tertiary sectors. For social assistance, Government has abolished categorical (nominative) compensations and will improve targeting and coverage of *Ajutor social* (means-tested social assistance). Rationalizing expenditures with more transparent, efficient and equitable allocations will require reforms both at the central and local government levels.

Public Capital Expenditure in Moldova: Trends and Allocation

2

A. Structure and Classification of the Capital Budget

The Moldovan budget classification broadly records expenses, assets and liabilities within the analytical framework of Government Finance Statistics (GFS) 1986.⁷ Capital expenditures are classified as:

- (i) **Investments:** acquisition of assets whose benefits are expected to last a number of years (for example, construction of housing, production and administrative buildings or gas pipelines).
- (ii) **Purchases of fixed assets:** purchases of items whose unit value is superior to 6,000 MDL and period of operation is greater than a year.
- (iii) **Capital repair works/“major repairs”:** refurbishments of assets accumulated through capital investment.
- (iv) **Purchases of strategic or emergency stocks, land and intangible assets.**
- (v) **Capital transfers within country:** transfers to state-owned enterprises,⁸ transfers to the Road Fund or other funds, intra-budgetary transfers.
- (vi) **Capital transfers to implement externally-funded projects:** the share of Government and public authorities as well as the share of external grants and loans in funding projects.

Moldova is expected to start implementing GFS 2001 in 2013. Box 2.1 and Appendix 1 present more details on Moldova’s current classification of capital expenditures and how it relates to international practice.

Capital transfers have replaced investments as the largest capital expenditure category. Domestically-financed capital investments have decreased both as a share of GDP (from 3.5 percent of GDP in 2006 to 0.7 percent of GDP in 2012) and as a share of total capital expenditure (39 percent in 2006 to 11 percent in 2012). This decline has been only partially compensated for by the increase in externally-funded capital expenditures, which mostly

⁷ Article 7 of the Law on the Budgetary System and the Budgetary Process (LBSBP – No. 847 XIII of the 24th of May 1996) and later amendments.

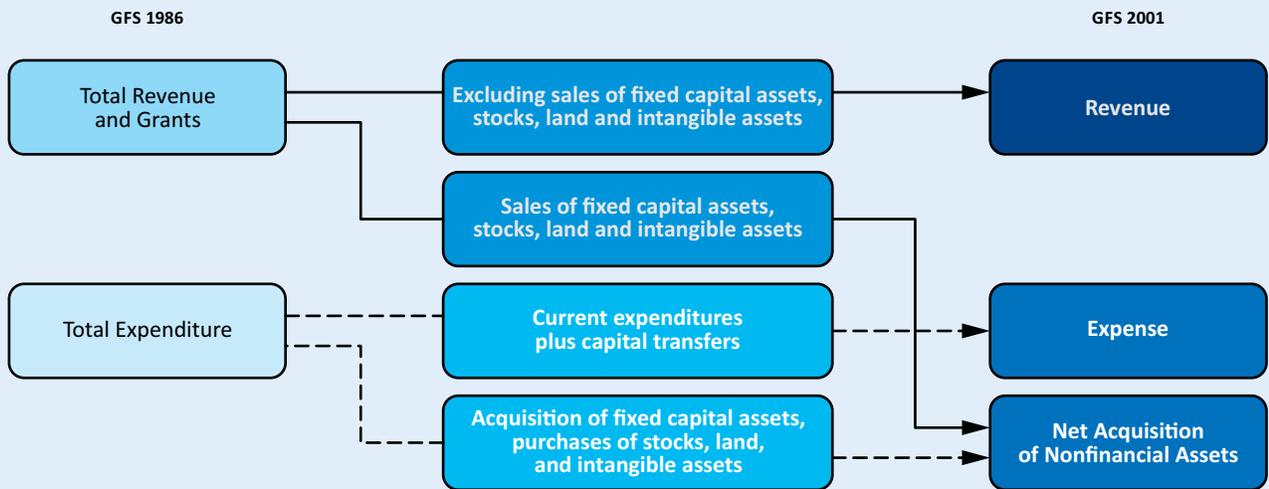
⁸ Recurrent subsidies are classified as current transfers (“transfers for goods and services”, and “transfers for production purposes”). They are not included in the capital budget.

Box 2.1: International Practice in the Classification of Capital Expenditures

In international practice, capital spending generally refers to the acquisition of physical assets with a period of use superior to a year as well as improvements in and rehabilitation of those assets, but definitions may include intangibles such as education and research and virtually all expenditures on items whose benefits are expected to spread over time. The US government definition of capital spending, for example, includes research and development expenses (both defense and non-defense) as well education and training spending.

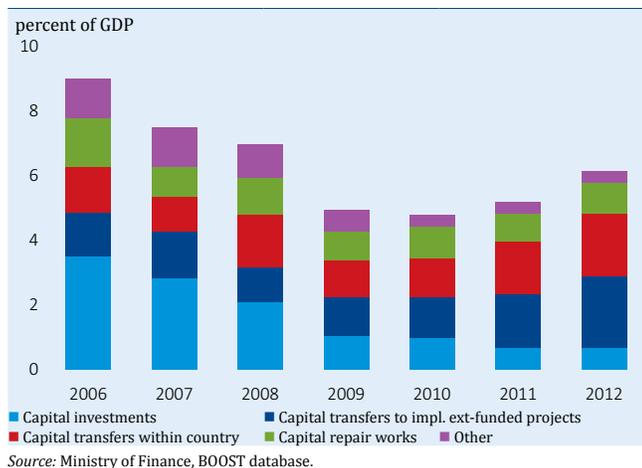
The IMF’s 1986 Government Finance Statistics (GFS) manual defines capital expenditures as: (i) acquisitions of fixed assets, strategic or emergency stocks, land, or intangible assets, (ii) refurbishments of assets/major repairs, and (iii) capital transfers.

In the IMF’s most recent statistical reporting framework, GFSM 2001, the notion of capital is replaced with net acquisition of non-financial assets (acquisitions minus sales/disposals and consumption of fixed capital). Renovations, reconstructions or enlargements that significantly increase the productive capacity or extend assets’ period of use (refurbishments/overhauls/major repairs in GFSM 1986) are treated as acquisitions of fixed assets in the 2001 framework. GFSM 1986 capital transfers are included in the GFSM 2001 aggregate expense category.



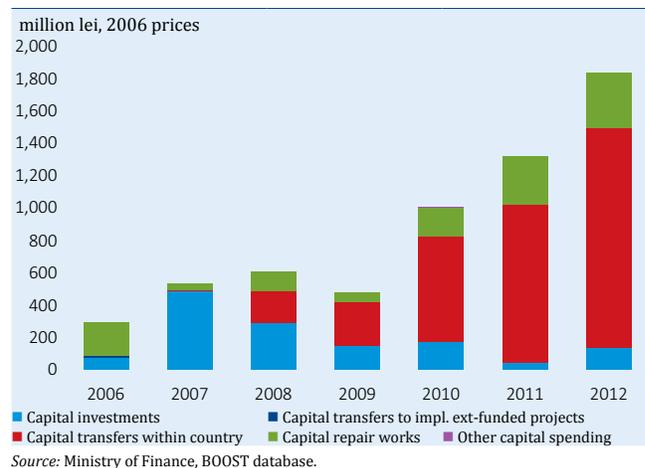
Source: IMF (1986). A Manual on Government Finance Statistics; IMF (2001). Government Finance Statistics Manual 2001.

Figure 2.1: Economic Classification of Capital Expenditure in Moldova, 2006–2012



Source: Ministry of Finance, BOOST database.

Figure 2.2: Road Fund Spending by Economic Classification, 2006–2012



Source: Ministry of Finance, BOOST database.

consist of investment projects.⁹ Capital transfers within country now account for almost one third of the capital budget (Figure 2.1). In 2007–2008, they included transfers to state-owned enterprises in the transport sector (railroad, air and naval transportation), but since 2009, they have mostly consisted of transfers to the Road Fund for maintenance and investment subsidies to farmers.

Expenditures currently classified as “capital transfers” do not always correspond to expenditures for the purpose of acquiring capital. After 2008, spending on road maintenance executed through the Road Fund has been classified as “capital transfers within country”, within the capital budget (Figure 2.2). These maintenance expenditures (0.8 percent of GDP in 2011) should be recorded in the recurrent section of the budget (as they were prior to 2009). Correcting for this classification issue, capital spending as a share of GDP was around 5 percent in 2012, rather than 6 percent.

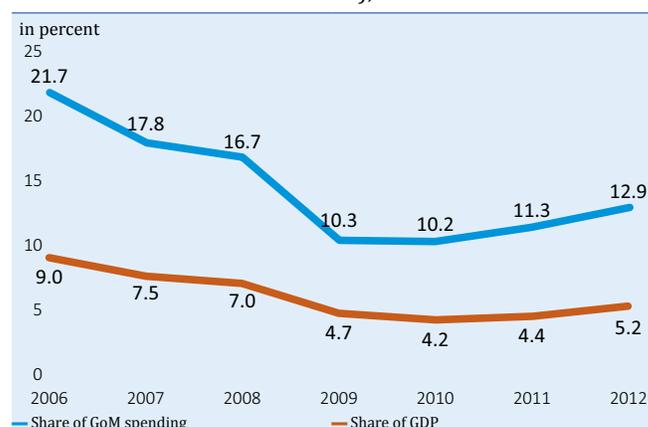
B. Recent trends in capital expenditure levels and execution

The fiscal adjustment since 2010 has stemmed the decline in capital expenditure. In 2009, the 33 percent under-execution of the capital budget reflected in part adjustment to the crisis and the electoral context, as the Government reoriented spending towards wage and pension increases.

The Government relies increasingly on external loans and grants to finance capital spending. In 2006, 15 percent of capital spending was externally-funded; by 2012 the share of spending funded externally had risen to 36 percent.

Overall, execution of the capital budget has improved since 2010. The general government budget was under-executed by a wide margin in 2009 (33 percent) (Figure 2.4). But the gap between the approved and executed capital budget narrowed to 16 percent in 2010 and 7 percent in 2011. In 2012, budget execution of capital spending exceeded approvals by 4 percent. The under-execution of the capital budget resulted from under-spending for externally-financed expenditure and over-spending for domestically-financed expenditure. At the local level, capital expenditure has been treated as a residual of other expenditures so that over-execution has been the norm.

Figure 2.3: Trends in Capital Spending (excluding transfers for road maintenance), 2006–2012



Source: Ministry of Finance, BOOST database, World Bank staff calculations.

⁹ External funds are almost exclusively earmarked to projects and classified within the Moldovan budget as “transfers to implement externally-funded projects”.

Figure 2.4: Evolution of Central and Local Approved and Executed Capital Budgets

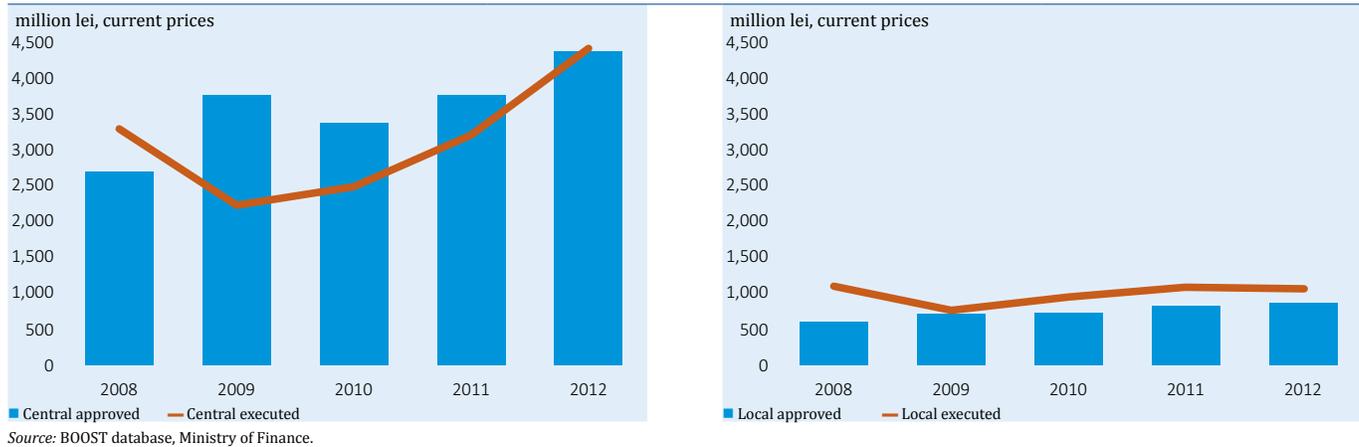


Figure 2.5: Capital Expenditure as a Share of GDP in ECA, 2011

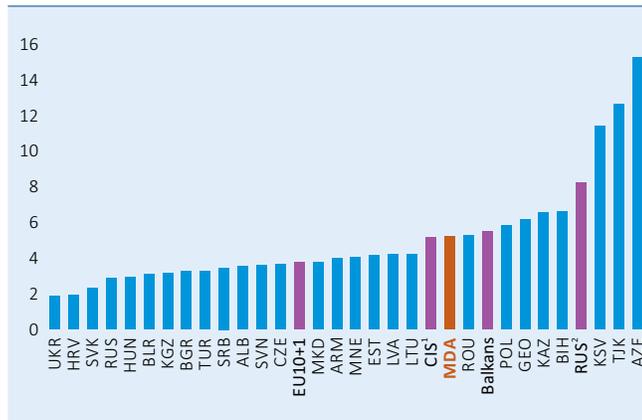
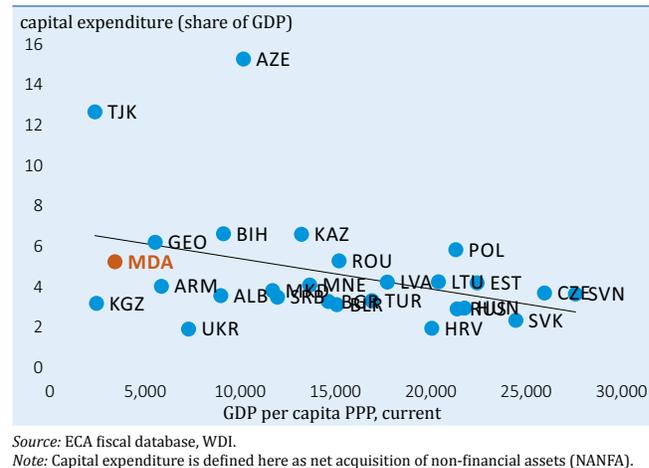


Figure 2.6: Capital Expenditure and GDP Per Capita, 2011



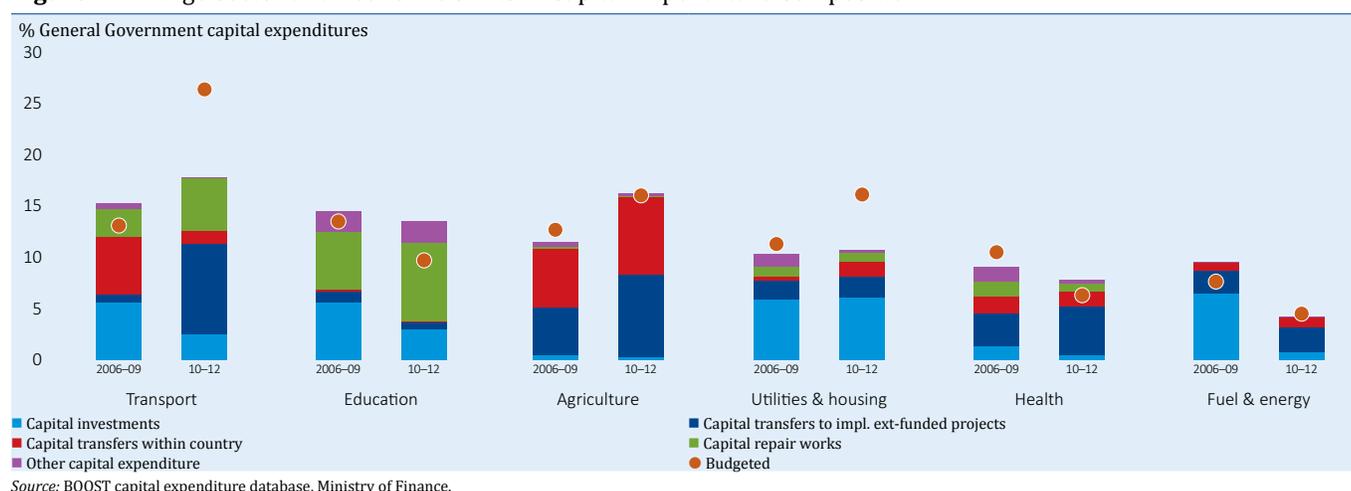
Spending on capital in Moldova is comparable to other countries of the region. At 5.2 percent of GDP in 2011, capital expenditure measured as net acquisition of non-financial assets (NANFA) remained higher than the average level for the EU 10+1 (3.8 percent of GDP), somewhat lower than the CIS and South Caucasus and Balkans averages, and well short of spending in Russia and other oil exporters (8.2 percent) (Figure 2.5). It was also broadly in line with capital spending in other Europe and Central Asia countries with similar income levels and that can be expected to have similarly substantial investment and rehabilitation needs (Figure 2.6).

C. Current sector allocations and trends

Trends in budgeted capital spending have been broadly consistent with Moldova’s strategic objectives, with the exception of the fuel and energy sector. Government goals as defined in national strategies (notably the National Development Strategy 2008–2011) called for increased capital spending in the energy, roads and water and sanitation sectors.

However, execution performance varied by sector, so that actual budget outlays were less aligned with national strategic priorities. The gap between executed and approved expenditures varied significantly across sectors (Figure 2.7), suggesting implementation issues (see Chapter 3). Central government budget under-execution was concentrated in the transport and utilities sectors and reflected the stalling of large domestic and donor projects.¹⁰

Figure 2.7: Large Sector and Economic Shifts in Capital Expenditure Composition



Since 2010, capital expenditure has been mainly in the transport, education, agriculture, utilities and housing sectors. Central government capital expenditures are now concentrated in the agriculture and transport sectors. Local capital spending is primarily on education, utilities and social housing. For a more detailed discussion of sector trends, see Chapter 4.

In the transport sector, greater mobilization of external funds has permitted greater investment, while also increasing domestic funding for road maintenance and capital repairs. After 2009, capital expenditure in transport was refocused on the roads sector, as previous capital transfers to state-owned enterprises were not continued. Increased funding has halted the trend of declining road condition in recent years, although much remains to be done to restore the road network to a satisfactory condition. Reforms have allowed substantial improvements

¹⁰ Executed amounts were only a fraction of the budgeted amounts in 2009 and 2010 for construction work on R20, R30 and M14 as well as for the Moldova road program support project; under-execution also occurred in the case of the Regional Development Fund and the Bank-funded water and sanitation project.

in strategic planning, project implementation and maintenance. However, the execution of domestic investment and external projects could be improved.

In the agriculture sector, capital expenditures are mainly transfers to farmers for investment subsidies. Since 2010, spending has been reoriented from recurrent subsidies to investment subsidies, which now represent 0.4 per cent of GDP in 2011 (similar to EU-27). The objective is to support sector modernization and improve market integration, with emphasis on the high-value horticultural sector. However, it is not clear that these subsidies are effectively supporting investment and innovation, as half of the subsidy fund is for basic machinery/equipment for cultivation of field crops. Also, from an equity standpoint, subsidies are mostly captured by large corporate farms (75–80 percent), whereas the individual farm sector produces the bulk of the high-value horticulture.

Trends in the education sector are consistent with the rehabilitation needs of an oversized general primary and secondary school network. Capital investment in education has declined while capital repairs increased. The education reform aims to optimize the number of schools and classes, thereby increasing financial resources available for remaining schools. The ongoing school network optimization and the reform of school financing are expected to result in significant reallocations of resources from recurrent to capital budget lines, with a larger portion of funds channeled towards the improvement of schools' water, sewage and heating systems.

Considerable public investment and repairs are needed in the utilities sector, but due to project implementation weaknesses Moldova has not been able to fully utilize available external funding. Urban and rural infrastructure is in an advanced state of disrepair. For example, the rate of pipe breakage in 2010 was 30 times higher than in Western European countries and much higher than in other ECA countries. The current level of capital spending in the water and sanitation sector capital is not sufficient to meet the Government's strategic objectives of halting the deterioration of existing infrastructure, let alone to increase the supply and quality of services.

In the health sector, with scant domestic resources, external funding has dominated capital spending, and network inefficiencies and inequality in access to health care have yet to be addressed. Recent years have seen a rapid decline in domestically-funded investments and an increase in spending on externally-funded projects, mainly in the primary care system. In addition to large unfunded needs, network inefficiencies and inequality (particularly geographic) in access to health care need to be addressed to improve the impact of capital spending.

While improving energy efficiency and reducing the cost of energy supply are critical factors in enhancing competitiveness, investment in the energy sector is held back by unresolved institutional problems. As the gas network construction program promoted by Government before 2009 was abandoned, executed spending on fuel and energy decreased from an average of 9.5 percent of capital spending over 2006–09 to an average of 4.2 percent in 2010–12. The asset base for energy and heating supply and distribution has deteriorated and debts have been accumulated due to below-cost heating tariffs. Inefficient energy use leads to high energy costs for both industries and residents, posing a serious bottleneck to growth and competitiveness. Moldova is one of the most energy-intensive economies in the region. Obsolete infrastructure has also meant poor quality of district heating services, which affects the welfare of the poor. The Government has worked with the World Bank to find solutions and important steps have been taken. Still, governance and institutional reforms remain to be implemented, debts to be restructured, and urgent investments to be addressed for sustainable operation of energy and heating companies and to attract desperately needed foreign and private sector investments.

D. Public investment and economic transformation

Transforming the economy and attaining national strategic objectives will require upgrades in infrastructure, particularly in the transport, energy and agriculture sectors. To foster a new export-led growth model in Moldova, it is essential to prioritize reforms and investments in public services and infrastructure that boost agro-based exports. Key areas include export corridors, food standards, irrigation, cold storage, transportation and logistics, and energy.¹¹

Moldova's National Development Strategy for 2012–2020 (NDS) calls for considerable public investments. It sets out a range of priorities to increase growth in the medium term by enhancing export competitiveness, increasing investment and integrating more closely with the European Union (EU). The strategy outlines seven priority areas for reforms and development, including large public investment in the national and local road infrastructure, energy efficiency, power generation capacity and physical interconnections with neighboring countries in gas and electricity (see Box 2.2).

Box 2.2: The National Development Strategy “Moldova 2020”

Moldova's NDS (2012–2020) lists seven strategic objectives:

1. Align the **education** system to labor market needs in order to enhance labor productivity and increase employment.
2. Increase **public investment in the national and local road infrastructure**, in order to reduce transportation costs and increase the speed of access.
3. Reduce financing costs by increasing competition in **the financial sector** and developing risk management tools.
4. Improve the **business climate** by promoting competition policies, streamlining the regulatory framework and applying information technologies in public services.
5. Reduce energy consumption by increasing **energy efficiency** and using renewable energy sources.
6. Ensure financial sustainability of the **pension system** in order to secure an appropriate rate of wage replacement.
7. Raise the quality and efficiency of the **justice system** and **fight corruption** in order to ensure equitable access to public goods for all citizens.

The existing fiscal space is not commensurate with investment needs, especially in the transport sector. Upgrading transport and logistics is essential to promoting trade and growth in Moldova, particularly for the wine sector, agro-industry and other manufacturing for export. Improving local roads is also crucial in order to achieve targets in the education and health sectors, requiring not only new infrastructure but also addressing the large backlog in road rehabilitation and maintenance. At the same time, NDS targets would require a level of investment and maintenance expenditures that would be hard to mobilize, given the numerous other needs of the country and limited opportunities for private sector involvement in the roads sector.¹² Increases in transport funding would

11 The World Bank (2011). *After the Global Crisis: Promoting Competitiveness and Shared Growth. Moldova Country Economic Memorandum.*

12 The opportunities for PPPs in the road sector may also be limited by the relatively low traffic levels on most of Moldova's roads.

require generating additional fiscal space or for making strategic decisions on the relative benefits of additional transport investments relative to capital expenditure in other sectors as well as other (recurrent) expenditure. In the meantime, additional prioritization and efficiency gains are needed in the transport sector. Improving local roads will require strengthening local government capacity and increasing local resources for maintenance and rehabilitation (see Chapter 4).

Key sources of inefficiency need to be addressed in every sector to raise the overall efficiency of public capital expenditures. In the energy sector, institutional reforms should come first. In the utilities sector, it is necessary to address the implementation issues that hamper the absorption of donor funds, and improve capacity within local governments. In the health sector, while improving the current state of health care facilities and updating obsolete equipment require large investments (especially in rural areas), the hospital network could benefit from further rationalization. In agriculture, the efficiency and equity of investment subsidies could be enhanced by reallocations and changes to program design within the existing envelope. In education, savings are expected through the optimization of the school network, which could be used for maintenance, enhancing school quality and increasing access to pre-school education.

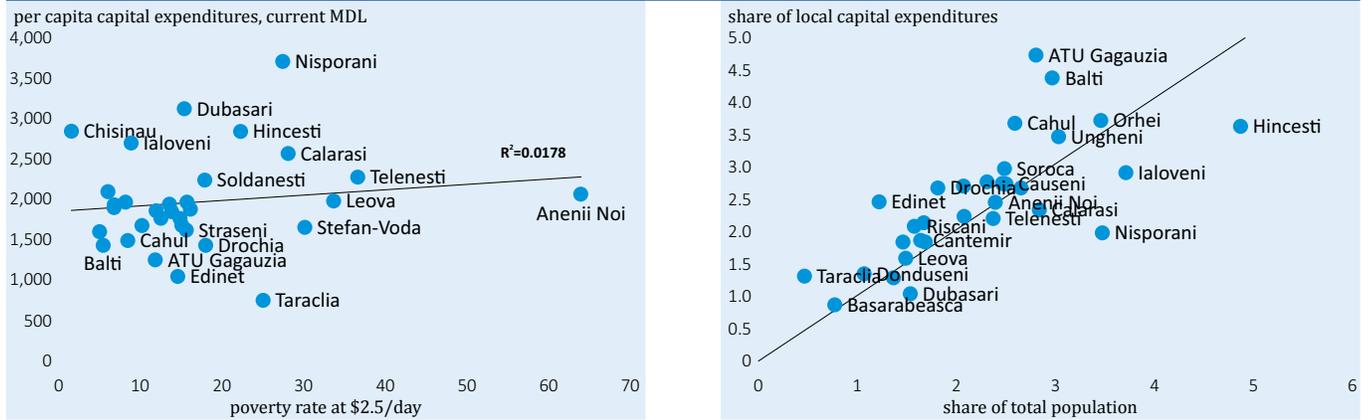
Addressing the constraints highlighted above and reaching Moldova's strategic goals will require substantial reforms in public investment management processes together with policy reforms in every sector. In light of fiscal constraints, implementing these policies cannot be achieved by increasing public investment levels alone. A range of options need to be considered, including raising the efficiency of capital expenditure and encouraging greater private sector participation, notably through restructuring or privatizations (for example, in the energy and transport sector). Even when additional resources for capital expenditure become available, public investment may support growth only if project benefits exceed their costs.

E. Equity and regional distribution

While capital expenditure is not necessarily to be used for redistributive purposes, public investment can help reduce poverty and provide equal opportunities for all. Investment in agriculture production and resilience can bring about substantial poverty reduction. The poverty profile shows that households headed by farmers and rural households have high rates of poverty, and thus measures to enhance agricultural productivity and boost exports could increase the incomes of the most vulnerable segments of the population. There are large inequalities in access to public services such as improved water and sanitation resources, education and health. Investments in local roads are a prerequisite for equal access to public services such as schools and healthcare facilities.

The geographic distribution of capital expenditures is broadly consistent with the distribution of the population and perhaps redistributive goals. Per capita spending is higher in districts with higher poverty rates (Figure 2.8), especially in the education sector. The poverty gradient is negative in the utilities sector, as there is more spending in large urban areas.

Figure 2.8: Per Capita Capital Spending by District, 2006–2012



Source: BOOST capital expenditure database, Ministry of Finance, World Bank ECAPOV database.

F. Conclusion

Going forward, Moldova needs to address efficiency and equity issues to better mobilize existing resources in support of national priorities. While available fiscal space is a constraint in light of the country’s considerable investment needs, Moldova should first and foremost improve efficiency to better utilize existing resources and to be able to satisfactorily implement good projects when more resources become available. Chapter 3 offers sequenced recommendations to achieve efficiency gains in public capital expenditure. Chapter 4 discusses specific sector challenges and recommendations for improving outcomes.

Improving Public Investment Management in Moldova: Issues and Recommendations

3

A. Introduction

Reforming public investment management is critical to make more effective use of limited domestic resources for capital expenditure, as well as to better leverage and absorb external funds. This chapter discusses key issues in public investment management in Moldova and makes reform suggestions to improve current outcomes by making public expenditure more efficient and effective, within the available fiscal space.

The Government is already pursuing public investment management reforms. A draft law on public finance and fiscal responsibility containing provisions relating to public capital investment has passed its first reading in Parliament. If proposed amendments are approved at second reading,¹³ the new law would give the Government authority to develop a regulation on public capital investment, a draft of which has already been prepared and subject to initial consultation. The proposed regulation will cover project development, appraisal, selection, implementation and evaluation. These planned reforms follow some positive developments in strengthening Moldova's capital investment budgeting system in recent years, including improved systems in earmarked investment funds (e.g., Regional Development Fund and the Road Fund), a new budgeting methodology with specific provisions for capital spending and the inclusion of medium-term public investment expenditure projections in the Government's draft budget submission. These reforms, together with adoption of a well-designed regulation setting out the framework for public investment management, have the potential to make public capital expenditure significantly more effective if implemented properly. However, the reform agenda remains large, notably with respect to operationalizing the new regulatory framework (if adopted) and the heightened effects of some of the issues identified in the World Bank's 2007 PER.¹⁴

The assessment of Moldova's public investment management system in this chapter follows a diagnostic framework developed by the World Bank¹⁵ that rests on eight key features of an effective system. A review of the complete diagnosis is found in Table A1 in Appendix 3. While a number of areas of public investment management

13 The initial proposal submitted for first reading contained a provision for a separate primary legislation on public investment. This is not consistent with the majority of international practice and may not be appropriate for Moldova.

14 The 2007 PER identified a number of weaknesses in public investment planning and management in Moldova, including: weak planning with insufficient anchoring of the investment program in government strategies; weak procedures for selecting public investment projects (with multiple decision-making authorities and significant reallocation of investment resources by Parliament); a fragmented investment budget; and the absence of systematic procedures for project screening and project selection.

15 See "A Diagnostic Framework for Assessing Public Investment Management", World Bank Policy Research Working Paper No. 5397, 2010.

in Moldova should be strengthened to maximize the efficient use of scarce public resources, the diagnosis highlights three areas of particular concern, which are analyzed in detail in the subsequent section of this chapter:

- (a) **Raise the quality of project preparation.** Improving preparation processes, including preliminary screening and having adequate project appraisal mechanisms for large and/or strategically important projects, will enhance the quality of projects brought into the public investment pipeline.
- (b) **Improve budgeting to prioritize resource allocation and ensure continuity of funding.** This entails strengthening project prioritization and managing the entry of new projects into the budget so that they are consistent with the available fiscal space after allocations for efficient implementation of ongoing projects. The objective is to improve allocative efficiency and reduce project delays due to interrupted funding.
- (c) **Strengthen project implementation and monitoring.** Making monitoring more responsive and improving the ‘non-financial’ dimension of monitoring will improve cost efficiency and the timely delivery of public services.

B. Key issues and recommendations

Raise the Quality of Project Preparation: Strategic Guidance, Preliminary Screening and Appraisal

Make Strategic Guidance More Useful for Prioritization and Introduce Preliminary Screening to Develop a Fiscally and Strategically Consistent Project Pipeline

Strategic investment guidance has improved considerably in recent years. The National Development Strategy 2008–2011 identified specific areas as priorities for public investment.¹⁶ The current National Development Strategy Moldova 2020 (NDS) focuses on seven areas and includes monitoring indicators and cost estimates, although it does not specifically discuss public investment. In addition to overarching long-term national strategies, sector and regional strategies have been developed. Notable are the transport strategies¹⁷ and a strategy for financing water supply and sanitation, which have been key guiding documents for their sectors. Regional development strategies

16 Namely, economic infrastructure (roads and energy) to support private sector development, and water and sanitation infrastructure for social development.

17 The Land Transport Infrastructure Strategy 2008–2017, approved by Government in 2008, and the draft Transport and Logistics Strategy (2012).

with infrastructure components have been prepared and approved for Moldova's three regions, and a Regional Operational Plan for 2013–2015 is in implementation.

However, weaknesses remain in the way strategies are developed. Not all strategies realistically assess resource availability for funding priorities, and identified investment needs often exceed feasible financing capacities. Lack of realism arises because strategies have often been prepared in isolation, with no aggregate resource framework and weak coordination with the Ministry of Finance. Absence of specificity in defining investment priorities is a problem, allowing too much room for maneuver in the choice of projects to pursue. And because monitoring is not strong and updating is irregular, strategies become out of step with the changing fiscal realities.

Strategic investment guidance is not yet built upon a solid assessment of the condition of assets, trends in service demand, emerging infrastructure gaps and funding possibilities. The sector strategies for land transport and for water supply and sanitation represent moves in the right direction. The land transport strategy, for example, is costed and presents various scenarios based on different financing possibilities.¹⁸ The National Financing Strategy for Urban and Rural Water Supply and Sanitation is based upon an assessment of the condition of existing facilities and networks and develops various financing strategies for rehabilitation and improvement, including a baseline strategy of halting further deterioration in the condition of the infrastructure. A revised water supply and sanitation strategy currently under preparation provides for the creation of a database on sector assets and performance and calls for a Water Investment Unit with oversight over water supply and sanitation master plans at the raion level.¹⁹ Although both the transport and water supply and sanitation strategies were derived from asset condition data and although improvements have begun in other sectors,²⁰ such an approach has not yet been institutionalized in Moldova. Future strategy development would be enhanced by more systematic assessment of asset condition in these and other sectors, requiring regularly updated asset registers and linked asset management systems.

Strategic considerations are still not sufficiently influencing the choice of capital investment project concepts. Short-term political considerations continue to play an important role in deciding which domestically financed projects go forward, even where there is a strategy in place. However, since a large share of investment is externally financed, the strategies are steering donors towards priority areas.

The impact of the recent improvements in strategic investment guidance is limited by the absence of formal project concept identification and approval processes to verify that the project rationale conforms to sector plans.²¹ As a result, new project concepts are not assessed before entering medium-term expenditure plans, and

18 The analysis is, however, more solid for roads than it is for railways, investment priorities being derived from road condition and demand (traffic) information.

19 The unit would also be responsible, among other things, for monitoring infrastructure investment progress and reporting achievements, issues and shortcomings. It would ensure the prioritization of investments in line with strategic objectives and in accordance with master plans and feasibility studies.

20 For example, a benchmarking exercise has begun in the education sector to develop an inventory and condition survey for schools to serve as a basis for prioritising maintenance, rehabilitation and renewal.

21 Moldova has in the past considered introducing a rigorous preliminary screening process. Recommendations on introducing a project identification form and a formal decision allowing project preparation to begin were made under the DFID MTEF project (2005–2008), but did not gain sufficient support among Ministry of Finance decision-makers. The idea was that new project concepts would be assessed before entering medium-term expenditure plans, within which their preparation and implementation would be programmed according to resource availability and policy priorities.

their preparation and subsequent implementation are not programmed over a medium-term perspective according to resource availability and government policy priorities.

Appraise Projects to Increase Cost-effectiveness

The domestically funded part of capital investment is not subject to adequate and comprehensive appraisal, raising serious questions about the economic viability and financial sustainability of investments. Moldova currently lacks a regulated project appraisal process involving systematic economic and financial analysis. Regulations from the Ministry of Regional Development and Construction concerning technical documentation for engineering feasibility and costing of construction projects exist and are enforced. This is an important component of preparation and appraisal. What is missing, however, is a formal requirement to undertake feasibility studies involving analysis of a project's economic viability, financial sustainability and environmental and social impacts. Also, there is no formal appraisal step when the findings of feasibility studies are assessed and a decision taken on whether a project qualifies to be submitted for budget funding on the basis that it represents good value for public money.

Externally-funded capital investment is subject to donor-prescribed appraisal processes. Checks by the Government on the quality and consistency of donor appraisals are very limited. In Moldova's present context of limited internal capacities for project appraisal, this is to be expected. Still, it would be a mistake to assume that donor appraisals can be relied upon exclusively, as they may also lack rigor, objectivity and quality.²² Authorities therefore need to be in a position to raise questions about the realism of cost and benefit estimates in donor projects and make sure that relevant alternatives have been considered. Also, as different donors may use different methods and parameters, it can be difficult for the Government to compare similar projects in the same sector.

A propensity to under-estimate costs, indicating optimism bias in project preparation, is especially evident for projects of local authorities but also increasingly for central government projects. Under-estimating costs and/or over-estimating benefits is a systematic flaw in project appraisal, irrespective of country or period of time (see Box 3.1). An analysis of capital objects using the Moldova Capital Objects BOOST database²³ shows that cost over-runs occur more frequently in local investment, and are more widespread in the education and utilities sectors. In recent years, estimated cost at inception was exceeded in about a third of local investment objects, by 60 percent on average. There were cost over-runs in 20 percent of local government capital repair objects, and these over-runs averaged nearly 50 percent. At the central government level, the proportion of objects with cost over-runs has been increasing over time. In 2011, there were already over-runs in three out of 12 objects initiated in 2010.

Existing capacities in project appraisal methodologies constrain the development of stronger appraisal processes, and Moldova currently has no systematic training program. There are, however, some islands of good practice and developing expertise. These are often related to the activities of earmarked investment funds,

²² Donors are not always rigorous in their application of cost-benefit analysis or cost-effectiveness analysis, and the quality of analysis can sometimes be an issue. Even when donors undertake cost-benefit analysis, it can lack objectivity or be performed after an investment decision has already been taken. Like domestic project sponsors, donors can also be prone to under-estimate costs and over-estimate benefits.

²³ See Appendix 2 for a description of database coverage and an assessment of data quality.

Box 3.1: The Problem of Optimism Bias in Projects

Optimism bias is the systematic tendency to under-estimated project costs and over-estimate benefits. A research group on large infrastructure at Aalborg University (Denmark) tried to quantify the extent of the problem and offer explanations, working from a large sample of major transport projects. This research (summarized in Flyvbjerg, 2005) finds that significant cost over-runs were seen across a sample of 258 major transportation projects, irrespective of country, continent or transport mode, and with no tendency to diminish. Nine out of 10 projects had a cost over-run, and the average (real) cost over-run was 45 percent for rail, 34 percent for bridges and tunnels and 20 percent for roads. From a sample of 208 rail and road projects, nine out of 10 rail projects had overestimated traffic, with actual passenger traffic 51 percent lower on average than forecast.

Because errors are systematically biased in one direction, poor techniques cannot explain the bias. The plausible explanation is that project promoters and planners systematically make projects look better than they are to obtain funding approval.

In South Korea, the approach to dealing with this problem is for an independent institution under the finance ministry (the Public and Private Infrastructure Investment Management Centre) to carry out preliminary feasibility studies of major (>USD 50 million) investments proposed by ministries as a prior step to allowing them to proceed with full feasibility studies. Norway's finance ministry contracts consultancy firms to perform independent reviews of major project proposals on its behalf.

Source: 'Policy and Planning for Large Infrastructure Projects: Problems, Causes and Cures', Bent Flyvbjerg, World Bank Policy Research Working Paper, no. 3781, 2005.

e.g., Road Fund and Regional Development Fund, where good processes are increasingly being applied and the skills to apply them have been assembled or developed (sometimes with donor support, as in the case of roads). On the other hand, there are severe capacity gaps in sectors like education and water and sanitation, where the necessary skills to plan, prepare, assess and prioritize investment projects are either in extremely short supply or non-existent. These constraints exist at both central and lower levels of government, but are more severe in the latter. This is important in the context of decentralization policy, particularly at raion level where some important investment planning functions in relation to education (schools) and water and sanitation could be located. At the central level, there is no tradition of public investment sector management by line ministries and this has limited the development of the necessary capacities to carry out independent review of investment proposals by subordinated institutions and lower levels of government, which tend to forward proposals into the budget process with little further scrutiny.

Currently Moldova has no systematic program for delivering training in appraisal methods across government on a sustainable basis. An example is the approach pursued by Ireland's Central Expenditure Evaluation Unit. As a key component of strengthening the country's public investment management system, the unit has been promoting the delivery of professional training in public investment management through the country's Civil Service and Development Centre.²⁴ Even countries with long established public investment management systems, like the UK, are giving renewed emphasis to systematic training: the newly established UK Major Projects Authority intends to train 200–300 civil servants over the next five years through its Major Projects Leadership Academy. Among transition economies, Slovenia's public investment management regulation reinforces the importance of developing and maintaining capacities by mandating the finance ministry to define training requirements and organize training.

²⁴ Training courses include procurement, project management, project appraisal and policy analysis.

Reform Recommendations: Project Preparation and Appraisal

Moldova can build on the improvements in strategic planning by developing a more integrated framework for strategic planning that ensures greater consistency between strategic plans, involves regular review and updating, and links planning to realistic estimates of medium- to long-term resource availability. The development of an overarching infrastructure strategy is worth considering,²⁵ provided its development is coordinated with sector strategies. The development of asset management tools will help identify needs and feed these into a strategic planning process that is more firmly based on evidence of the distribution and condition of the country's assets.

A rigorous preliminary screening process should be introduced as an important first step in screening out poor project concepts or those that do not fit national or sector priorities. This process would also promote the development of a project pipeline consistent with the medium-term macro-fiscal outlook (see Box 3.2). It would involve an initial assessment of the project concept (including simple value-for-money questions, such as rough capital cost per user) and a formal decision to proceed to detailed project planning and appraisal. This approach is foreseen in the new budgeting methodology to be introduced following approval of the law on public finance and fiscal responsibility. Which institution carries out the preliminary screening will depend on the sector, the allocation of responsibilities between levels of government and the scale of the project. The main consideration is that some

Box 3.2: Preliminary Screening at Project Identification Stage

A preliminary screening process can have numerous advantages:

- It forces project promoters to clarify the project logic (problem being addressed, purpose of the project and target beneficiaries), the justification for government intervention and alternative solutions before dedicating resources to project preparation.
- Project objectives can be verified at an early stage for compliance with policy and expenditure priorities, and projects inconsistent with these priorities can be rejected.
- Early recognition of significant recurrent financing needs allows time to develop the necessary coherence between the capital and current parts of a spending agency's budget.
- Any important design issues, including possible project alternatives, can be identified early and built into the terms of reference for studies. The preliminary screening process disciplines spending agencies by guiding them towards priority areas for investment and causing them to think in terms of developing a 'pipeline' of affordable projects within MTBF limits.

Numerous international good practice examples support the introduction of a preliminary screening process. In the UK, projects are examined for economy, efficiency and effectiveness through the development of a series of three 'business cases'. The first, the Strategic Outline Case, is equivalent to a preliminary project assessment, when the strategic rationale for the project is tested. Ireland's guidelines for the appraisal and management of capital expenditure proposals include a preliminary assessment stage on the basis of which the sponsoring agency decides whether it is worthwhile to move forward to preparation and appraisal. Albania introduced a simplified preliminary project assessment and formal decision as a first step in its public investment management system, while Colombia has introduced a formal identification step involving a description and diagnosis of the problem to be addressed, the rationale for the project solution and its objectives, and identification of alternative solutions.

²⁵ Some more advanced countries, such as Australia, Canada, the UK and Sweden, have recognised the need to have an overarching strategy to address infrastructure deficits.

degree of independence is required, the more so the more costly the project. Concepts for major projects of national significance can expect to be scrutinized by the Capital Investment Division in the Ministry of Finance. Scrutiny of smaller project proposals would be more appropriately decentralized to the relevant supervising authority. Thus the raion could be the appropriate level for examine investment proposals from schools, while it would make sense for the Ministry of Education to review the systems and criteria the raion applies in doing so. The Regional Development Fund already includes an assessment of the project concept in its processes for assessing competitive submissions for funding; other funds could be expected to do the same. In these cases, it would be reasonable for the Capital Investment Division to take an interest in the quality of the screening process (rather than individual decisions).

Moldova's budget system could allow for more strategic, 'programmatic' projects²⁶ that group together similar small projects or 'objects' with the same objective. This needs to be done at the project concept stage and should be linked to sectoral medium-term expenditure planning. In Moldova, public expenditure is understood in terms of discrete 'objects' (unlike the more restrictive notion of the project in international practice).²⁷ The capital budget is characterized by the proliferation of many small capital objects with low value, particularly at the local level. Adopting a higher-level definition of a project would encourage planning and budgeting to be more strategic and would help in making prioritization more manageable. The level at which a programmatic project is defined and the level at which decisions are taken need to be linked to the allocation of functional responsibilities across government. A raion, for example, might develop a school building or rehabilitation project consisting of a number of individual objects (i.e., interventions at the school level). The Ministry of Education might then scrutinize the design, policy relevance, cost effectiveness and criteria for selecting objects within such a project, but not the individual object decisions. Depending on the cost of the project, the Ministry of Finance might also have a review role. In other sectors, the allocation of responsibilities for designing and reviewing programmatic projects might be different according to the way the functions of government have been organized.

Major projects that have passed the identification stage should be subject to rigorous and systematic assessment, including economic cost-benefit or cost-effectiveness analysis, to verify that they represent a good use of public money.²⁸ Project appraisal should include systematic analysis of the economic feasibility and financial sustainability of public sector projects. On the basis of a feasibility study (or its equivalent), a formal appraisal decision should be required, involving sign-off by officials responsible for promoting and authorizing projects. Appraisal should extend to assessing alternative delivery/procurement methods, involving varying degrees of private sector participation and risk sharing where this is an option.

Moldova should adopt a common appraisal methodology, applicable to all projects irrespective of funding source. The priority is evidently to undertake more rigorous scrutiny of the domestically-funded program.

26 A programmatic project should not be confused with a budget program in a program budgeting system. A programmatic project is generally a component of a wider budget program.

27 In Moldova, public expenditure is understood in terms of discrete 'objects'. A project is a planned set of interrelated tasks to be executed over a fixed period and within certain cost and other limitations. An object, on the other hand, is any item for which a cost is compiled, and can be a product, a service, a project or an activity. Objects typically span several distinct economic and functional categories. About 75 percent of externally-funded capital spending over 2006–11 were not coded into objects.

28 As New Zealand's methodological guidelines state, the aim of project appraisal should be to answer the following questions: What are the specific outcomes sought through the investment? Are there better ways to achieve these outcomes? Are there better uses for these resources? Is this an appropriate role for government?

This methodology could be based on existing methodological guidelines such as those prepared for EU regional development projects.

The sophistication of methods should be made proportional to the scale and complexity of the project and to the availability of skills. At first, the threshold for full feasibility studies involving cost-benefit or cost-effectiveness analysis should be set relatively high, so that closer scrutiny is directed at the more important decisions and so that scarce analytical capacities are used to best effect. Simpler approaches can be used for less significant investments. Given the distribution of project values in Moldova, an initial threshold of MDL 30 million is suggested (Table 3.1). This would mean a small number (under 10) of fully domestically financed projects being subject to full cost-benefit analysis every year. This threshold could be lowered to MDL 12.5 million as experience and capacities develop. Such a value would, however, be towards the lower end of international experience and should not be considered as an obligatory step. Setting these thresholds would not mean that lower value projects would not be subject to any assessment of their economic viability, but qualitative assessments of benefits would be used (see Box 3.3). Internationally financed projects, which are anyway generally of higher value than the proposed threshold, would continue to be subject to the requirements of the relevant funding agencies, which invariably require socio-economic cost-benefit analysis, although the Ministry of Finance may verify that this is the case.

Table 3.1: Distribution of New Central and Local Investment Objects by Estimated Total Cost

		2006	2007	2008	2009	2010	2011
Central	< 3,000,000 MDL	39	30	28	15	4	2
	3,000,000 MDL–12,500,000 MDL	13	10	8	3	3	1
	12,500,000 MDL–30,000,000 MDL	8	4	4	2	2	0
	> 30,000,000 MDL	5	9	6	2	3	1
Local	< 3,000,000 MDL	141	163	78	79	102	60
	3,000,000 MDL–12,500,000 MDL	34	10	5	9	0	0
	12,500,000 MDL–30,000,000 MDL	7	4	0	4	1	0
	> 30,000,000 MDL	4	0	1	0	0	0

Source: Moldova Capital Objects BOOST database, Ministry of Finance.

Box 3.3: Setting Thresholds for Mandated Project Appraisal

Many countries set thresholds above which full feasibility studies involving socio-economic cost benefit analysis are mandatory.

The value thresholds vary by country depending on national preferences, capacities in project analysis and the distribution of projects by value. Ireland, for example, requires feasibility studies involving economic cost-benefit analysis for investment projects with a total cost in excess of euro 20 million, compared to euro 5 million for Slovenia. In terms of international experience, Ireland is at the upper end of the scale and Slovenia closer to the median.

For lower value projects, qualitative assessments of benefits can be used. Ireland, for example, requires lower value projects to be subject to a multi-criteria analysis to demonstrate their viability relative to alternative uses of public monies.

Independent review of appraisal findings and decisions is a critical element in many countries' public investment management systems, and Moldova should consider how best to replicate this. Currently, no

independent checks verify the objectivity of appraisals, either internally by the sponsoring organizations (for smaller projects) or by external bodies (for larger projects). Such checks are important to try to counteract optimism bias. As discussed above for preliminary screening, responsibility for independent review should be related to the sector, the allocation of functional responsibilities between levels of government and the scale of the project. For larger projects (or programmatic projects), the choice is between review by the Capital Investment Division of the Ministry of Finance or by a demonstrably independent peer reviewer or institution (as in the case of South Korea). The former will require developing the necessary skills in the ministry and preparing its staff to take on a stronger challenge function. For major infrastructure projects, the Capital Investment Division would be expected to take a detailed interest in the feasibility study findings and raise questions about assumptions and risks, i.e., a quality control role; for programmatic projects or investment funds, the quality of systems and criteria for selecting objects and projects would be the focus of attention.

Moldova should consider introducing more comprehensive and institutionalized training in appraisal methods organized by the Capital Investment Division. Overall, project appraisal skills must be developed across government in a coordinated fashion, so that the new skills are actually applied in decision-making and not left to atrophy. Training provision might need to be considered in Moldova's draft regulation so as to establish the importance of training and legitimize the role of the Ministry of Finance. There is a growing recognition at the technical level of the need to address the capacity gap; however, building capacities in the absence of demand for an improved analytical basis for decision-making can be a fruitless exercise. Stimulating demand for better skills from key decision-makers must therefore also be part of the package.

Improve Budgeting to Prioritize Resource Allocation and Ensure Continuity of Funding

Moldova has a well-managed budget process with the necessary elements for a reasonably strong policy orientation, as confirmed by PEFA assessments (Table 3.2), but there are concerns about the real impact of the process on budgetary decisions. This should, in principle, be conducive to good project selection by line ministries within defined capital expenditure limits. It should also support integrated planning of recurrent and capital expenditure. Through the MTBF, budgeting appears to have a strong policy orientation, with decisions being made within a medium-term perspective on the basis of strategic expenditure plans. Capital ceilings are set at the level of the sector and higher-level budgetary organization, thus creating an appropriate incentive framework for prioritization. Despite the high PEFA score for PI-12 (B+), concerns remain that medium-term expenditure programming is insufficiently binding and does not embody a credible political commitment to the expenditure plans it contains. MTBF sector working groups complain that their work has limited impact on the final form of the budget. At the same time, capacities within sector ministries to plan with a sectoral vision and to develop medium-term sector expenditure plans require strengthening. In some cases, fragmentation of functional responsibilities continues to hinder sector-wide expenditure planning.

Table 3.2: Scoring of PEFA Indicators PI-11 and PI-12 for Moldova

Policy Based Budgeting	2011	2008	2006
PI-11 Orderliness and participation in the budget process	B	A	B+
i) Existence of and adherence to fixed budget calendar	B		
ii) Clarity/comprehensiveness of and political involvement in the guidance on the preparation of budget submissions (budget circular or equivalent)	B		
iii) Timely budget approval by the legislature or similarly mandated body (within the last three years)	C		
PI-12 Multi-year perspective in fiscal planning, expenditure policy and budgeting	B+	B↑	B
i) Preparation of multi-year fiscal forecasts and functional allocations	B		
ii) (Dimension not relevant)			
iii) Existence of sector strategies with multi-year costing of recurrent and investment expenditure	A		
iv) Linkages between investment budgets and forward expenditure estimates	B		

Source: PEFA Assessment Update for Moldova (2008–2010).

The recent addition of supplementary information on the medium-term expenditure implications of the annual capital investment plan has the potential to allow more informed scrutiny of the budget and has increased transparency. With its 2012 budget submission to Parliament, the Government has started providing information tables giving project-specific information on progress in financial implementation and providing a perspective on expenditure beyond the budget planning year. This is consistent with recommendations made by the DFID MTBF project on improving decision-making for multi-year projects. Separate tables for capital investment by central public authorities and by local public authorities show:

- Total estimated project cost
- Actual expenditure prior to the current budget year
- Balance to complete at the beginning of the current budget year
- Current budget plan
- Balance to complete at the end of the current budget year
- Planned expenditure in the budget planning year, by source of funds
- Indicative expenditures in the two years after the budget planning year.

A weakness is that both the inception year²⁹ and completion year are not given alongside the financial data for objects with multi-year implementation plans, making it difficult to ascertain whether time over-runs are occurring. Balance to complete at the end of the medium-term perspective is not shown explicitly, but can be calculated.

The Capital Investment Division of the Ministry of Finance carries out a limited ‘gate-keeping’ function, verifying only that projects have the necessary engineering studies, cost estimates and approvals. ‘Gate-keeping’ normally means verifying that projects presented in budget submissions have been appraised and approved by the relevant authorities and reviewed independently by the finance ministry (or other authorized body). It is the last line of defense against the introduction of unscreened projects in the budget. In Moldova’s case, the absence of a formal project appraisal process, together with capacity constraints, prevents the Ministry of Finance from performing a fuller role, except perhaps in the case of donor-funded projects.

²⁹ Inception year, but not completion year, is given for local public authority objects.

Strengthen Prioritization in Budget Decisions and Ensure Continuity of Funding for Ongoing Projects

Although budgeting in Moldova has many positive features, prioritization and continuity of funding for ongoing projects are still problems. Comparison of the Government's budget as submitted to Parliament with the approved budget provides an insight into inefficiencies in budget decision-making.³⁰

Most local objects proposed by Government in the initial budget submission (mostly to complete ongoing activities) are dropped by Parliament; those kept suffer budget cuts greater than 50 percent. The Government's budget proposals for capital investment by local public authorities are largely directed towards completing ongoing projects and relatively few new projects have been introduced in recent years. While staying largely within the defined capital expenditure ceiling, Parliament has systematically re-drafted the part of the budget dealing with capital investment by local public authorities. This can be seen by comparing Government's proposed budget to that finally adopted by Parliament for 2010 and 2011 (Table 3.3).³¹ Parliament seems to spend a disproportionate amount of time on local capital objects, which represent a small part of capital expenditure and an even smaller part of total expenditure.

Table 3.3: Capital Investment Objects of Local Public Authorities, as Planned by Government and Approved by Parliament

	2010	2011
Number of investment objects in Government submission to Parliament	68	61
Total planned expenditure	MDL 145 million	MDL 100 million
Average allocation per object	MDL 2.1 million (USD 179,000)	MDL 1.6 million (USD 139,000)
Number of investment objects dropped by Parliament	54	52
Number of investment objects retained by Parliament but with a decreased allocation	10 (52% decrease on average)	6 (63% decrease on average)
Number of objects retained by Parliament with unchanged or increased allocation	4	3
Number of objects (investment and repair) in budget approved by Parliament	345 Of which, 219 'capital repairs'	459 Of which, 374 'capital repairs'
Total approved expenditure	MDL 145 million	MDL 106 million
Average allocation per object	MDL 420,000 (USD 36,000)	MDL 231,000 (USD 20,000)

Source: Annex 6 to the budget (Ministry of Finance website <http://www.minfin.md/ro/>).

Parliament introduces a multitude of small projects, the majority of which are small 'capital repairs' to existing facilities, many without prior preparation. The approved budget in 2011, for example, contains nearly nine times as many objects as the Government's submission and the average allocation per object fell by

30 However, the political landscape has been particularly turbulent during this time with negative consequences for budgeting.

31 Parliamentary influence over the capital budget is not a new phenomenon, as analysis produced for the 2005 report 'Improving the Planning and Management of Public Investment' confirms. Budget proposals for capital investment by the Ministries of Energy and Education in 2005 were subject to significant change, mainly the addition of many new projects with a significant impact on total spending at ministry level. Parliamentary influence seems to have increased for capital expenditures by local public authorities and diminished for the budget of central public authorities. Although detailed analysis is not presented in this report, the Ministry of Finance has confirmed that in 2013 as in previous years, local projects in the Government's proposal were not selected, and were replaced by a large number of very small objects.

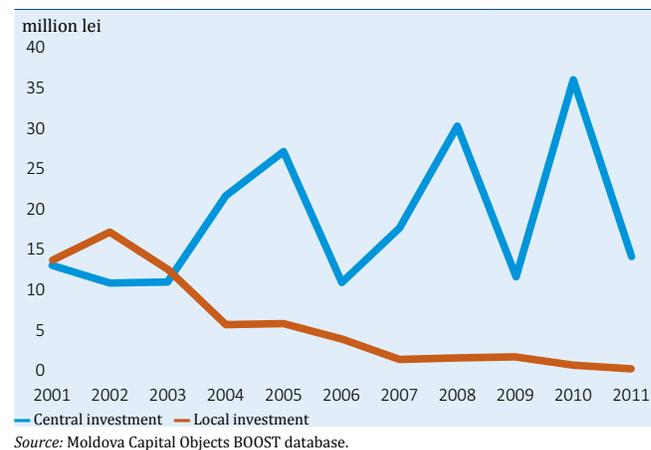
over 80 percent.³² Also, the Government and Parliament seem to have different priorities when it comes to local capital expenditure. The Government prioritizes completion of ongoing projects, largely in gas distribution and water supply and sanitation, whereas Parliament has been directing resources to low-cost capital repairs of existing facilities and creation of pre-schools and cultural centers. In terms of economic efficiency, rehabilitation or timely repair of existing facilities can very often produce a higher return than investing in new facilities. So there may be a logic to parliamentary decisions, in the same way as the Government's concern to complete projects makes sense. At the same time, the criteria used by parliamentarians to decide which repairs to prioritize are not transparent. Also, some proposals are not well developed, leading to delays in execution once approved, or not necessarily directed towards facilities where the needs are greatest (i.e., where user demand is highest and the condition of the facility is poorest).

Resources are also being spread more thinly on local investment objects. The capital budget is characterized by the proliferation of many small capital objects with low value, particularly at the local level. The average planned expenditure on local objects dropped from MDL 13.5 million in 2001 to MDL 1.7 million by 2009, and was as low as MDL 222,000 in 2011 (Figure 3.1).

Funding for ongoing capital activities is not continuous, especially at the local level. Since 2006, between 30 and 50 percent of executed expenditure was effected on new rather than ongoing objects. The average value of new objects relative to the ongoing program, measured as spending on all active objects during 2006–2011, varied between 32 percent (in 2007) and 50 percent (in 2008). Budget allocation to a given object is often interrupted. Budgeted allocations were interrupted for over a third of the investment objects and a fourth of local repair components for which there were multi-year budget allocations. This 'stop and go' phenomenon is more marked at the local level. Multi-year allocations were interrupted in 10 percent of central public authority objects with an investment component compared to close to half of local objects with an investment component and a quarter of local repair object components. Central investment objects stalled for a year on average, while the average stalling period of local investment (and repairs) objects was about two years.

The lack of continuity of funding for ongoing projects lowers the efficiency and effectiveness of public expenditure by lengthening implementation periods and delaying service improvements. Extended implementation may also increase unit costs of construction, particularly in cases where funding is interrupted for a year or more and remobilization costs are incurred. Of the 14 projects retained by Parliament from the Government's 2010 submission, seven were subsequently rejected by Parliament when resubmitted for continued financing in the Government's 2011 budget proposal. This indicates an apparent time inconsistency on the part of parliamentarians, whose priorities seem to shift between one year and the next, so that projects favored for

Figure 3.1: Average Spending on Investment per Object, 2001–2011



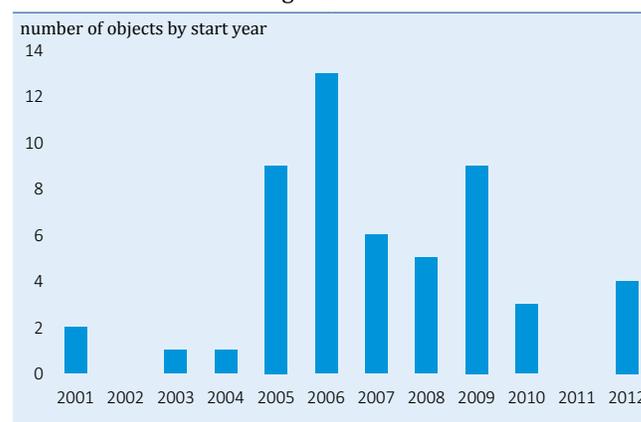
³² The experience in 2010 was similar, although not as severe.

completion in one year fall out of favor in the next. The Government's own submissions have also not been fully time-consistent. Of the 14 projects accepted by Parliament from the Government's 2010 proposal, the Government itself chose not to include four in its subsequent 2011 submission, and since three of these had had their 2010 allocation cut by Parliament it would seem unlikely that they could have been completed. Only three ongoing local projects were submitted by the Government in both 2010 and 2011 and approved by the Parliament in both years (although with reduced allocation in some cases). The funding for these three projects was nevertheless insufficient to complete them, and all three reappeared in the Government's 2012 budget submission. Information provided in the 2012 budget submission (Table 14, Informative Note) indicates that one of these projects started as long ago as 2001 and another in 2007.

As a result of inconsistent funding, a significant overhang of slow-moving, ongoing local objects remains to be cleared. Information on the total costs of local public authority projects presented as part of the 2012 budget submission³³ indicates that the average project cost

is MDL 12 million (USD 1 million). Although there is no general rule for the relationship between project cost and the time required for implementation, most of these projects are not complex and should normally be completed in one year, with a probable maximum of two years. The total cost of the 53 projects included in the proposals is MDL 589.7 million. Dividing this by the proposed annual budget of MDL 106 million gives a rough estimate of the average completion time, which would be just under six years, indicating grossly inefficient financial planning. This is supported by the distribution of project start dates (Figure 3.2). Out of 53 projects proposed, 37 are more than four years old and 26 are more than six years old.

Figure 3.2: Start Dates for Local Objects in the Government's 2012 Budget Submission to Parliament



Source: Ministry of Finance: Informative Note to the budget submission.

Compared to local objects, parliamentary influence over capital investment by central public authorities has been relatively limited recently (although not in the past). Comparison of the draft submitted to Parliament by the Government with that eventually approved by Parliament indicates relatively small changes to the projects included and virtually no change to the aggregate expenditure (Table 3.4). Parliament added six projects in 2010

Table 3.4: Central Public Authority Capital Investment Projects, as Planned by Government and Approved by Parliament

	2010	2011
No. of objects in Government submission to Parliament	49	63
Total planned expenditure	MDL 1,025.3 million	MDL 1,087.5 million
No. of objects dropped by Parliament	3	0 [1 had budget reduced]
No. of objects added by Parliament	6	7
No. of objects in budget approved by Parliament	52	70
Total approved expenditure	MDL 1,026.1 million	MDL 1,094.0 million

Source: Annex 5 to the Budget (Ministry of Finance website <http://www.minfin.md/ro/>).

33 Table 14, Informative Note.

and seven in 2011, and rejected three projects in 2010. The projects added did not involve significant expenditure and total spending barely increased.

Central public authority capital investment projects seem to be implemented with much delay (although less than for local public authority projects) and financing is not as focused as it could be on completion of ongoing projects. The Government's 2012 budget submission indicates that it is choosing to spread resources thinly over more projects, rather than targeting a smaller number of projects to be completed in good time so that they can start delivering more or better services to users.

Box 3.4: Managing Multi-Year Commitments in an Annual Budget Process

There is often an apparent contradiction between the multi-year character of major projects and the annual nature of the budget. The most inefficient solution, thankfully avoided by most countries, is to forbid the signature of multi-year contractual commitments. The alternative of making multi-year appropriations brings with it problems of budgetary discipline. Most countries find an intermediary approach. The stability of the policy environment, the political-economic context and the legal framework can have an important bearing on what works and how well.

The approach frequently adopted is to allow multi-year contractual commitments, but to make annual, lapsing appropriations (as in Moldova). Where there is sound contract law, a judiciary that is fully independent of the executive and impartial procurement procedures (so that litigants are not discriminated against), there are likely to be significant financial penalties (on top of the efficiency considerations) for interrupting financing for ongoing multi-year contractual commitments. Generally, governments in these contexts choose automatically to renew funding for multi-year projects and contractors are ready to enter into long-term contracts with government. In the political-economic context of Moldova, these conditions may not necessarily pertain and continuity of funding can become an issue.

Some EU member states use 'authorizations for forward commitments' or 'commitment appropriations' for multi-year capital investment projects. 'Authorizations for forward commitments' authorize commitments to be made over a multi-year period, but annual appropriations are still then required to make payments. 'Obligations-based appropriations' also cover multi-year program, but are authorizations to pay as well as commit, and are less common. In some countries, authorizations for forward commitments are presented to parliament as part of multi-year estimates accompanying the budget (with an indicative schedule of forward payments), giving an effective instrument to control and manage the implementation of investment projects and assisting with analysis of the budget. In presentational terms, this would be much like the information notes on the investment program presented in the Government's draft 2012 budget, but with more legal force if presented as part of the budget (usually as an annex). This could be one option for Moldova to consider.

Sources: 'Managing Public Expenditure: A Reference Book for Transition Economies', R. Allen & D. Tommasi, OECD, 2001.

Moldova is experiencing some problems in managing multi-year financial contracts in the context of the legal authority given by the annual budget. This is not an uncommon issue and different countries have different ways of approaching it (see Box 3.4). In Moldova, it is possible to enter into multi-year commitments, but resources are only appropriated annually and appropriations lapse at the end of the year. This is a frequent arrangement, but it can cause significant problems in the Moldovan context because of unstable priorities, so that multi-year projects end up competing against new projects for continued financing. In practice, entering into multi-year contracts seems to be more difficult than the law would appear to indicate. The very strict policy of closing the books at year-end, so that no commitments can be paid after 31st December, can also cause problems with works contracts where the time between submission and eventual payment of stage-payments for completed works can often be lengthy because of verification procedures.

Reform Recommendations: Budgeting of New Projects and Funding Continuity

Alternative mechanisms could be considered for transferring resources for capital expenditure to the local level. Local governments could be granted more responsibility for directly allocating local capital expenditure. Funding could either be through an unconditional capital transfer calculated on the basis of a formula, which local governments could then allocate to capital expenditure as they wished, or through conditional capital transfers directed towards Government-determined priority areas and subject to competitive allocation on the basis of pre-announced and transparent criteria. Both approaches would remove the choice of specific projects from the central government budget process. Moving to such funding systems runs the risk of some delayed projects never being completed (which is also a risk of sticking to the *status quo*),³⁴ but this may be a sacrifice worth making to escape the gross inefficiencies of the existing system. Local public authorities could still choose to complete the backlog of ongoing projects with their capital transfers, or the criteria for conditional capital transfers might be designed to favor completion. Consistent with the above recommendation, the new law on local public finance, which has passed its committee stage in Parliament, envisages an end to direct funding of projects through the central government budget while leaving room for formula-based transfers to local government for capital spending. This would signal the end of the list of local projects annexed to the budget which takes so much parliamentary time. The accompanying fiscal decentralization strategy envisages the establishment of formula-based capital transfers, supplementing the special-purpose funds to which local public authorities already have access.

Extending fiscal decentralization to capital spending would require careful analysis (including of local government capacity). If there are significant cross-boundary externalities, as in the case of network services, or where significant over-capacity due to demographic change requires rationalization across local authority boundaries, e.g., in the case of schools and hospitals, then more centralized decision-making is preferable (see Chapter 4 for a discussion of the education and health sectors). Depending on the sector and the allocation of functional responsibilities between levels of government, this need not be at the central government level. In education and water supply, for example, the raion level (the second level of government) is appropriate for taking account of cross-boundary effects at the first level of government.

Approval of budget appropriations at a higher level of aggregation needs to be considered as a means of increasing the role of the executive in deciding the operational detail of the budget and refocusing Parliament's attention on strategic issues and performance. This is already envisaged in the draft law on public finance and fiscal responsibility that is before Parliament. This change would also have positive implications for the efficiency of project implementation, allowing more freedom to make virements between projects within year according to implementation performance, without the need for parliamentary approval.

Establishing a capital baseline, as already foreseen in the new budgeting methodology to be adopted, would help improve continuity of funding for ongoing projects. The capital baseline (estimated funding requirements for ongoing projects) would be calculated first, at the beginning of the budget preparation process and as part of the

³⁴ The Ministry of Finance has indicated that resources may be made available for completing major ongoing projects. These will generally be the projects that the Government has been trying to introduce into the budget in recent years, but which have been systematically rejected by Parliament in favor of small local interventions.

process for setting MTBF ceilings. New projects should then compete against each other for funds remaining within capital ceilings once the capital baseline is met.

The forward-looking information tables presented with the budget should be strengthened to aid transparency and serve as a reference point for decision-makers. The 2012 draft budget was accompanied by various information tables showing the forward financing implications (2012–14) of capital investment projects. At a technical level, including the dates of project inception and expected completion in the tables would begin to expose the extent of the backlog of ongoing projects.

A requirement to reintroduce stalled projects into any more formalized public investment assessment system could act as deterrent to disrupting financing and prioritizing new projects over ongoing projects. Stalled projects should be defined to include not only those where work is suspended, but also those where disbursement falls below pre-defined percentage of the financial plan. Re-assessment could include a requirement to resubmit major projects to the proposed Inter-Ministerial Council for Capital Investment.³⁵ Requiring written justification from spending agencies for inserting a new project into their budgets at the expense of efficient implementation of ongoing projects (as in Romania’s budget systems law) could also have a deterrent effect and would, at least, make the practice more transparent.

Further development and institutionalization of Moldova’s MTBF process will be beneficial for public investment management. This will help create a framework for planning, prioritization and implementation of multi-year infrastructure projects and for planning for their sustainable operation and maintenance after delivery. At a technical level, the MTBF is already well embedded in budgetary processes, but it still is not effectively anchoring expenditure discipline and informing allocation decisions. Moldova should continue its efforts in this direction, and the new law on public finance and fiscal responsibility and the supporting methodological guidelines for budgeting will be an important development in this regard once enacted. In the end though, the MTBF will only work effectively if there is adequate political buy-in at the highest levels.

The Ministry of Finance’s gate-keeping role in the budget process should be reinforced. The ministry needs the power to turn down projects at budget time if it is evident that they have not been through the proper appraisal process beforehand. This should apply equally to projects inserted into the budget by Parliament, although obtaining parliamentary consent for this might be difficult.

³⁵ A proposal contained in the draft of a regulation on public capital investments.

Improve Project Implementation and Monitoring

Strengthen Implementation Procedures, Procurement³⁶ and Financial Control³⁷

Moldova has no manual formalizing project implementation procedures. As with appraisal procedures, there are pockets of good practice, like the Road Fund, the Regional Development Fund and the Environment Fund.

Moldova's 2007 Public Procurement Law (PPL) created a solid legal basis for public procurement and brought the country closer to EU good practice. The PPL established a system where implementation of procurement procedures is decentralized to public entities, with a regulatory body, the Public Procurement Agency (PPA),³⁸ at its center to coordinate the system.

Open competitive procurement is now the main procurement method and transparency has increased. Nevertheless, inefficiencies and departures from good practice still remain, which if overcome could secure better value for money from public investment. Ongoing problems (delays and poor quality work) with contracts for major road rehabilitation indicate that there is ample room for improving selection processes. Increased economy in delivering public investment could be achieved by continuing to address weaknesses identified in the 2011 PEFA, namely:

- Promote increased use of open competitive bidding and reduce unexplained departures;
- Build a regulatory framework to support consistent application of the PPL;
- Strengthen procurement capacities in procuring entities through training and guidance;
- Remove conflict of interest from the complaints review process; and
- Review the PPL to make it fully consistent with international good practice, particularly in the area of domestic preference and concession arrangements.

A strict central financial control over budget execution is exercised in Moldova and compliance with rules is high. This is good for aggregate budget discipline, but the rigidities may reduce the efficiency and effectiveness of some expenditures, particularly capital investment (see Project Adjustment section below). Some of these rigidities derive from the high level of detail at which the budget is approved by the Parliament but, as discussed above, there are proposals to introduce change in this area. This is consistent with the move to program-based budgeting, which implies less central control over line-items and more focus on results.

The role of the Capital Investment Division (CID) in checking the validity of payment orders for capital expenditures has recently been reduced. This is consistent with PEFA 2011, which found that some financial controls were excessive, leading to possible inefficiency and delays. However, the change has cut the CID out of the loop in terms of the flow of information on financial implementation (see the section on Active Monitoring below).

³⁶ For more information on procurement issues in Moldova, see the 2011 PEFA (PI-19 and its dimensions) and the World Bank's 2010 CPAR. Neither document explicitly addresses procurement for public investment.

³⁷ Sources on financial control and audits are the 2011 PEFA (PI-20 and PI-21 and their dimensions) and Dirk-Jan Kraan, Valentina Kostyleva, Colin Forthun, Jutta Albrecht and Ragnar Olofsson, "Budgeting in Moldova", *OECD Journal on Budgeting*, Volume 2010/3.

³⁸ The PPA was created in 2009, replacing the Agency for Material Resources, Public Procurement and Humanitarian Aid established under the PPL.

The CID has retained its role in controlling payments by local public authorities executed through Territorial Treasuries, although this will disappear if the new law on local public finances is enacted.

Deficiencies in cash planning can weigh on implementation efficiency. Cash planning is not always efficient and cash rationing is not uncommon, leading to payment of invoices being put on hold.³⁹ In addition to possible implementation inefficiencies, e.g., contractors slowing works because of late payment, this probably also increases the cost of capital investment, as contractors build the cost of payment delays into their bids. Cash planning could be improved if central public authorities were required to submit quarterly and monthly cash plans, as well as the annual plans submitted at the beginning of the budget year. More sophisticated commitment management would also help by providing systematic information on when commitments are likely to fall due for payment.

The impact of internal audit on the qualitative dimensions of capital investment implementation is still very limited. Internal audit units have been established in Moldova's ministries, but they still have some way to go before they perform a modern internal audit function. All central public authorities had to establish independent internal audit units in 2010 and Level-2 Administrative Territorial Units in 2011. However, the concept of internal audit has yet to be fully absorbed, with most auditing still related to compliance rather than extending to financial and performance auditing. There is a basic understanding of economy, efficiency and effectiveness, but implementation in everyday work is still to be achieved and more training for auditors is required.

Actively Monitor Financial and Non-financial Performance of Projects

Monitoring systems for project implementation in Moldova are uniquely concerned with financial monitoring and are largely passive. At a minimum, the financial monitoring system needs to be capable of tracking

Box 3.5: Project Monitoring, Re-assessment and Adjustment in South Korea

South Korea has developed three useful instruments for identifying and reacting to changes in project conditions that risk undermining the forecast economic returns from the investment:

- **Total Project Cost Management System (TPCM):** The TPCM is used to monitor closely the total cost of major multi-year projects and to prevent significant cost escalation. The system is based on strict principles limiting the justifications for cost increases and the authority to agree to such increases.
- **Re-assessment of Demand Forecast (RDF):** Demand forecasts for major projects are re-examined when there are important changes in the project environment that could affect the continued adequacy of the forecasts. The RDF can be carried out during any phase of the project cycle from planning to construction.
- **Re-assessment Study of Feasibility (RSF):** A RSF is performed for projects in the TPCM if:
 - The total cost for a project increases by more than 20 percent in real terms (excluding land acquisition) compared to the previously approved cost.
 - When the demand forecast for a project falls by 30 percent or more (on the basis of the RDF).

On the basis of the results of the new RFS, a decision is taken on whether to continue or stop the project. Ways of reducing the size and cost of the project are also examined to achieve continued viability and avoid cancellation.

Sources: Presentation by Korean Development Institute to International Conference on Public Investment Management in Hanoi, 2010; 'Public Investment Management Functionality', presentation given in Mongolia by James Brumby, World Bank, 2010; and *Guidelines for Total Project Cost Management*, Ministry of Strategy and Finance, 2009.

39 PEFA 2011.

changes in the disbursement profile of a project, total estimated project costs and estimated completion date compared to plan. Currently, the Ministry of Finance only monitors the first of these three (see Appendix 2 for details). Non-financial dimensions of project progress are not monitored, apart from donor projects. Conceptually, implementation monitoring is not well differentiated from financial control and inspection functions. Insofar as monitoring information is used in planning and management, it is mainly for budget preparation tasks rather than for identifying problems with individual projects and developing responses. Ideally, the monitoring system needs to be capable of supporting a system for managing total project costs, like South Korea's (see Box 3.5).

Improve Ability to Make Project Adjustments

Moldova's strict line-item budgeting system does not allow much flexibility for in-year project adjustments. Some in-year flexibility, with clear rules and limits, is generally desirable, so that resources might be transferred from slower to faster moving projects within a ministry's capital ceiling, thus optimizing overall implementation (see Box 3.6). Currently, this kind of flexibility is effectively blocked in Moldova by strict rules on virements, a very detailed line-item budget and appropriations defined by several classifications simultaneously.⁴⁰ In practice, reallocations have to be done through supplementary budgets, which are enacted two to three times a year. These supplementary budgets are often used to transfer resources away from poorly prepared projects—invariably from local public authorities—that entered the budget without adequate checks. The proposed new budget systems law and the accompanying budget classification, moving away from line-item budgeting towards broader, results-oriented appropriations, are expected to bring in a more flexible approach.

Box 3.6: Allowing Project Adjustments While Containing Total Capital Spending Ceilings and Project Costs: The Example of Botswana

A successful approach used by Botswana has been for Parliament to approve the total estimated cost of each project and the total capital spending ceiling for each ministry for the coming year. This allows funding to be switched (with the approval of the finance ministry) between projects in-year so that an under-spend on a slow moving project can be switched to a project where implementation might be moving faster than planned. Control of total project costs is maintained by approval of the total estimated cost, which becomes the focus of parliamentary attention (rather than the annual slices). If a project's total estimated cost needs to be revised, the change comes under parliamentary scrutiny and requires approval through the budget.

Systems for stopping poorly performing or irrelevant ongoing projects as a matter of course are not in place and this tends to be done through infrequent, *ad hoc* cleaning up exercises.⁴¹ Weak monitoring and a lack of a total project cost management system make it difficult to identify which projects should be considered for closure.

40 Dirk-Jan Kraan, Valentina Kostyleva, Colin Forthun, Jutta Albrecht and Ragnar Olofsson, "Budgeting in Moldova", OECD Journal on Budgeting, Volume 2010/3.

41 In 1999, the Government gave priority to completing 251 objects out of a total of 449, and to abandon the rest. In 2005, another amendment to the decision made further inroads into the problem by reducing the number of objects for completion to 201. According to the report of a recent IMF FAD mission, a similar cleaning up exercise occurred in 2011.

Reform Recommendations: Implementation and Monitoring

Broader reforms in public financial management will be important for strengthening project implementation.

This includes better cash planning, more flexible financial control, further development of internal audit and more competitive public procurement. Many of these areas are being addressed through ongoing efforts to harmonize with EU practices under the umbrella of public internal financial control reforms.

Specifically in relation to public investment, Moldova should consider developing a government-wide project implementation manual to guide project managers on how to organize, manage and report on project implementation. Structured guidance, including organizational arrangements for proper project management and appropriate monitoring systems, would be advantageous for efficient project implementation. Sector-specific guidance can then be issued as required within the framework of the generic guidance.

Moldova might consider adopting a more systematic process for managing total costs and adopting triggers for re-assessing projects where costs or benefits go off track. Appraisal procedures need to build in re-appraisal of major projects where total estimated costs increase substantially or where a significant shortfall in estimated project benefits is expected, as used for example in South Korea (see Box 3.5). Mechanisms for stopping failing projects or projects where value for money is no longer assured should replace the intermittent reviews of the project portfolio that occur now. The success of such a system would depend on having reliable and timely monitoring information.

A responsive monitoring system (including both financial and non-financial indicators) must be developed.

Financial reporting on project implementation should be improved so that there is better reporting on changes in the total estimated cost of ongoing projects and the disbursement profile. Reporting on non-financial indicators of implementation performance—which would be defined during project preparation—also needs to be instituted. More centralized monitoring of project reports is one option to be considered, but monitoring for its own sake serves little purpose. A responsive monitoring system, which identifies problems early and then ensures that solutions are being implemented, should therefore be developed in order to improve implementation efficiency. For this to be effective, project managers need to be given adequate flexibility to make adjustments in response to changed conditions. A project module has been developed as part of Moldova's IFMIS project. This could facilitate monitoring, and could also assist with multi-year contract management.

Grouping objects into programmatic projects (as already discussed) can also facilitate monitoring. A finance ministry cannot dedicate scarce human resources to monitoring implementation of small objects and individual contracts. Rather than monitoring the status of the replacement roof for the primary school in village x, for example, a finance ministry ought to be more interested in how many primary schools have been rehabilitated within a more broadly-defined primary school rehabilitation project, and whether these achieved project outputs are according to plan and within budget.

While monitoring is a weak point in Moldova's public investment management system, ambitions concerning its immediate improvement must be kept realistic and in line with an appropriate sequencing of system improvements. Good indicators and a baseline are required in project design to enable performance monitoring. Project planning improvements are therefore likely to be a prerequisite. The concepts and terminology of the logical

framework approach⁴²—hierarchical summary of the project’s objectives and quantitative indicators to verify their achievement—could be a good basis for a project performance monitoring system (and later ex post evaluation), but the approach would need to be introduced into project design first. Good implementation plans are required for monitoring progress: this seems a more realistic possibility in the near term. Also, capacities will have to be strengthened in terms of both staff skills and numbers if the Ministry of Finance’s Capital Investment Division is to begin monitoring non-financial performance of projects.

Clarity is required to define what needs to be monitored at each level in the system and at what level of detail.

Monitoring information required by a project manager is different from that required by the responsible spending agency, which is in turn different from that required by a finance ministry. In the case of Moldova, monitoring at the level of spending ministries does not yet seem to be well developed. There is a growing awareness of the need to improve information systems and flows relating to investment projects, so the Ministry of Finance may need to take the lead in developing improved systems. Implementation of the project module of the IFMIS would be a good step forward, but the Ministry of Finance will need to ensure that there is widespread access to the information generated across the ministries responsible for investment projects. Over time, monitoring can be more decentralized to spending ministries. Few finance ministries in countries with more advanced PFM systems involve themselves in centralized monitoring of the overall investment program on a project-by-project basis, although there is often a focus on the progress of major projects.

Post-Completion: Sustainable Operation of Facilities and Evaluation

Moldova has an effective handover process by which new facilities are verified as consistent with the original design specification and fit for purpose. The Inspectorate of Construction under the Ministry of Regional Development and Construction must certify works as compliant with specifications.

However, asset registries are not well developed. Moldova lacks a fully developed system of up-to-date asset valuation and registers. As well, updating current values for existing assets should be based not simply on accounting principles, but on the actual physical condition of the asset. Asset management tools are under-developed, although some progress has been made in the roads sector with a pavement management tool presently being implemented. To be sure that improved information on the condition of assets and renewal requirements actually has an influence on investment choices, effective information flows need to be established between asset management tools and strategic investment decisions.

Although a framework for integrated budgeting of recurrent and capital expenditure exists in the form of the MTBF, operating and maintenance expenditures for new facilities are not systematically planned, especially by local public authorities. Planning improvements in the road sector have resulted in a more integrated approach to budgeting, but such practices have not infiltrated the whole of government.

42 Including the projects overall objective/goal, its purpose, its outputs/results and its activities.

Ex-post evaluation remains one of the weakest components of Moldova's public investment management system. At present, apart from donor practices, there is no systematic evaluation of completed projects to determine whether they represent an efficient and effective use of public resources. Evaluation should become increasingly important as the country moves towards performance-based public management and budgeting (as is foreseen in the adoption of a program budgeting approach).

Reform Recommendations: Operation and Evaluation

Asset registers and asset management systems should be developed in the infrastructure sectors. These will help identify infrastructure investment requirements and optimal expenditure needs for facility operation and maintenance. Such systems are particularly important for the utilities and transport sectors (see Chapter 4).

As ex-post evaluation is very difficult without meeting some minimum planning requirements, the priority should be to achieve minimum standards in project preparation and appraisal first. In particular, there should be a baseline and forecasts against which to measure performance. Limited reviews on project completion should become standard to identify reasons for deviations between the project as designed and as delivered, and to learn lessons for future project design.

Requiring a formal project completion report should be considered as a first step towards full ex-post evaluations, which may be an ambitious requirement in the near term. This would determine whether a project has been delivered on time, on budget and to the correct specification. It should be more informative and analytical than certification/acceptance of works, looking at such things as the original vs. the achieved budget and the achieved time-line vs. the planned and offering explanations and lessons learnt.

As with appraisal, evaluation needs to be proportionate to project importance and scale. Evaluation should begin with a small number of major projects, notably problem projects with high lesson learning potential, and then extend to a risk-based sample of lower value projects. Evaluation can then be extended to all major projects and a sample of smaller projects as capacities develop. The role of the Ministry of Finance needs to be considered. Generally finance ministries are involved in promoting good practice in evaluation; however, it may be necessary to have a more active involvement, perhaps through some pilot evaluations for demonstration purposes.

The Moldovan Court of Accounts can take an increasingly important role in the evaluation of public investment projects. Supported by the World Bank, it has already developed some capacities in performance auditing (five performance audits undertaken and published) and has also undertaken audits of some donor-funded projects. These capacities can now be expected to develop further so that independent assessment of the performance of public investment projects (using risk-based sampling) eventually becomes part of the public investment management system. Evaluations by a country's supreme audit institution can be a powerful way of driving through system improvements.

C. Conclusions: Main recommendations and sequencing

If enacted, current legislative and regulatory reform proposals could address some of the key issues highlighted in this chapter by establishing the basic design for a uniform public investment management system consistent with the recommendations above. Importantly, the proposed second-reading amendments to the new budget systems and financial responsibility law give authority to the Government to issue regulations on the management of public capital investment. The draft submitted to Parliament included provision for separate primary legislation on public investment, which is out of line with the majority of international practice and may not be appropriate for Moldova's circumstances. In addition, the amendments to the law include a requirement that expenditure on a capital investment project must have complied with the laid-down procedures for its preparation (including feasibility studies and cost efficiency analysis) in order to be included in a budget. It also stipulates that resources for capital investment will be allocated primarily for the completion of ongoing projects, with new capital investment projects resulting from the Government priorities set in the strategic planning documents. If enacted and properly implemented, the provisions of the law and the supporting regulation in preparation could significantly contribute to making public capital expenditure more effective.

It is important that the draft regulation on public investment management should be reviewed to make it consistent with the recommendations set out above and with international good practice. It is also important for the regulation to be fully consistent with all the provisions of the new law on public finance and fiscal responsibility and with the new budgeting methodology that supports it. For this to happen there will need to be good coordination within the Ministry of Finance. In particular, duplication or inconsistency between the organizational design in the regulation and that in the budgeting methodology need to be avoided. The first draft of the regulation proposed an inter-ministerial council for public investment, while at the same time the budgeting methodology establishes an MTBF working sub-group on public investment. It is important that the roles of these two bodies be clearly distinguished and that project screening (a quality control function) be treated separately from project selection (a prioritization and programming process done through the budget), with any inter-ministerial council confined to endorsing the quality of projects for inclusion in the budget, rather than appearing to give funding approval (which should only be given through the budget process). It is also important that the inter-ministerial council should not become a 'rubber-stamping' body that exercises little discrimination and endorses nearly all projects that come before it.

The proposed reforms need to be sequenced to take into account implementation capacity and expected benefits. Some of the measures proposed in this report can be implemented in the short run, building on the progress already achieved in recent years. Others will take more time. Table 3.5 below proposes a sequence for implementing public investment management reforms. It assumes that the amendments to the law on public finance and fiscal responsibility and ensuing regulation on public investment (appropriately modified to reflect good practice) are in place: these are the essential prerequisites of the reform agenda.

Organizational arrangements will have to be chosen to implement these reforms. A decentralized model is probably inappropriate for Moldova at the present time. The Ministry of Finance needs to keep and indeed strengthen its role in quality controlling projects prior to implementation, because of general system weaknesses, insufficiently developed accountability for performance and weak project preparation and assessment capacities in spending

agencies. Some form of centralized monitoring of the investment program is appropriate for the same reasons. Over time the Ministry of Finance might gradually dilute its role in the quality control chain, in line with developments in Moldova's performance management systems and supporting accountability arrangements (although this is not an obligatory transition). At the same time, it should be active in developing improved procedures and methods, and supporting their introduction across spending agencies. As time goes on, the quality assurance function would become more important. This would be consistent with the role that has been foreseen in the draft regulation, where the Ministry of Finance is envisaged as providing technical secretariat services to the proposed inter-ministerial council for capital investment.

Fostering demand for better processes and improving transparency may help motivate performance improvements and sustain a result-oriented focus. One of the positive features of public financial management in Moldova is public access to budget documentation. Accountability could be strengthened by increasing public awareness, possibly through a website. For it to work effectively, appropriate governance arrangements need to be in place to ensure reasonable editorial independence. Also, prior investment in upgrading monitoring systems will probably be required so that they can report on completion of milestones for major projects. The introduction of project completion reports, as previously suggested, could also be a useful source.

Table 3.5: Proposed Sequencing and Impact of Main Recommendations for Reform

Main Reform Suggestions	Proposed Sequencing and Expected Impacts
<i>Strategic guidance, project concept development and preliminary screening</i>	
Strengthen strategic guidance for project identification and development	<p>Medium Term</p> <ul style="list-style-type: none"> • Develop a national infrastructure strategy consistent with NDS and sector strategies • Introduce more integrated strategic planning and test the fiscal realism of strategies <p>Medium to Long Term</p> <ul style="list-style-type: none"> • Use information from asset management tools in strategic planning and prioritization
Introduce screening of project concepts	<p>Short Term</p> <ul style="list-style-type: none"> • Institute a rigorous preliminary screening process and formal decision step to proceed to preparation • Introduce more strategic, programmatic projects, grouping isolated ‘objects’ <p>Medium Term</p> <ul style="list-style-type: none"> • Develop project pipeline consistent with medium to long term fiscal outlook
Impacts: Improved policy relevance and effectiveness of projects; sustainable management of the asset stock; and early identification of potential ‘white elephants’	
<i>Formal Project Appraisal</i>	
Introduce regulated project appraisal process and improved methodologies	<p>Short Term</p> <ul style="list-style-type: none"> • Carry out systematic analysis of the economic feasibility and financial sustainability of projects, beginning with major projects • Introduce a formal appraisal decision step into the project cycle <p>Medium Term</p> <ul style="list-style-type: none"> • Adopt guidelines on a common appraisal methodology • Extend to lower value projects according to experience and capacities • Raise awareness of systematic decision-making tools for verifying value for money • Improve project planning to include monitorable indicators of project performance during implementation and operation <p>Medium to Long Term</p> <ul style="list-style-type: none"> • Institute systematic government-wide training program in project analysis skills
Impacts: Raised quality of public investment, with projects more likely to represent good value for public money	
<i>Independent Review of Appraisal</i>	
Introduce independent review of appraisal findings	<p>Short Term</p> <ul style="list-style-type: none"> • Make Capital Investment Division responsible for reviewing appraisal decisions and realism of estimated project costs/benefits <p>Short to Medium Term</p> <ul style="list-style-type: none"> • Develop skills in scrutinizing project costs and benefits in Capital Investment Division • Extend review process to donor-funded projects
Impacts: Reduced optimism bias, i.e., fewer projects with cost overruns and/or unrealistic benefits	
<i>Project Selection and Budgeting</i>	
Prioritize completion of ongoing projects over commencing new projects	<p>Short Term</p> <ul style="list-style-type: none"> • Estimate capital baseline as first step in budgeting for capital expenditure <p>Short to Medium Term</p> <ul style="list-style-type: none"> • Further develop and institutionalize MTBF process
Verify conformity with prior steps for projects entering budget	<p>Short Term</p> <ul style="list-style-type: none"> • Increase authority of the MoF to turn down projects presented as part of budget requests that have not passed through regulated quality control and decision steps

Reform central government financing of capital spending by local public authorities to increase local decision-making power, where this is more efficient	<p>Short Term</p> <ul style="list-style-type: none"> Review financing options and capacity constraints at local level and develop reform strategy <p>Medium Term</p> <ul style="list-style-type: none"> Implement reform strategy
Impacts: Shorter and more efficient project implementation; more credible medium-term capital ceilings; closer integration of budgeting for capital and recurrent spending; improved quality of projects entering the budget; and more strategic role for Parliament.	
<i>Project Implementation and Project Adjustment</i>	
Standardize project management and implementation arrangements, ensuring clear definition of roles and responsibilities	<p>Short to Medium Term</p> <ul style="list-style-type: none"> Develop government-wide project implementation manual to guide project managers
Improve financial and non-financial monitoring information and make monitoring more responsive	<p>Short Term</p> <ul style="list-style-type: none"> Introduce better reporting on total estimated costs, implementation milestones and dates <p>Short to Medium Term</p> <ul style="list-style-type: none"> Introduce mandatory reappraisal of stalled projects and projects where significant cost increases or benefit shortfalls are expected <p>Medium to Long Term</p> <ul style="list-style-type: none"> Give project managers more flexibility to make adjustment to changed conditions
Impacts: More efficient project implementation; early warning of problems; savings from adjustment or cancellation of poorly performing projects.	
<i>Facility Operation</i>	
Develop asset management tools and integrate information generated into capital expenditure planning	<p>Short Term</p> <ul style="list-style-type: none"> Develop and maintain asset registers and linked asset management systems for the transport sector <p>Medium to Long Term</p> <ul style="list-style-type: none"> Develop and maintain asset registers and linked asset management systems for other sectors Establish information flows for strategic planning and prioritization purposes
Impacts: Improved focus on preserving stock of assets; better information on requirements for asset renewal and on optimal expenditure needs for facility operation	
<i>Evaluation</i>	
Establish ex-post evaluation as a mandatory stage in the project cycle	<p>Short Term</p> <ul style="list-style-type: none"> Beginning first with major projects, introduce strengthened project completion reviews analyzing deviations between planned and actual budget, timing and specifications <p>Medium Term</p> <ul style="list-style-type: none"> Extend project completion reviews to smaller projects MoF to initiate full performance evaluation of a very limited number of completed major infrastructure projects Develop evaluation guidelines and case studies <p>Long Term</p> <ul style="list-style-type: none"> Extend ex-post evaluation to all major projects and a risk-based sample of lower value projects
Impacts: Improve overall quality of public investment by feeding evaluation findings into strategic planning and project preparation	

Improving Capital Expenditure Outcomes: Sector Policy Reform Options

4

In addition to the overall institutional arrangements for public investment management recommended above, steering budget policy to achieve national investment goals requires sector-specific policy measures. This chapter reviews trends, strategic directions and key issues in the sectors that concentrate most capital expenditures—transport, agriculture, utilities and housing, education and health—and proposes policy reform options for improving capital expenditure outcomes in each sector.

A. Transport: Rehabilitating roads and protecting asset value

Trends and Composition of Capital Spending

Since 2010, capital expenditure in the transport sector has recovered and has been refocused on the roads sector. Capital spending sharply dropped in 2009 as previously large capital transfers⁴³ to state-owned enterprises (SOEs) were not continued and budgeted investments in the road sector were not executed (Figures 4.1 and 4.2). Under-execution was related to delays in procurement and execution in mostly externally-funded road rehabilitation contracts. In 2007 and 2008, the capital budget included “capital transfers within country” to SOEs in railroad, air transportation and naval transportation (Figure 4.3). But by 2012, central government expenditure in the transport sector went almost exclusively to roads. At the local level, roads accounted for half of total transport expenditure.⁴⁴

Moldova has reformed road maintenance financing and sharply increased domestic funding. Beginning in 2010, increased excise taxes raised contributions to the Road Fund from MDL 241 million in 2009 to MDL 1.02 billion in 2012 and 1.08 billion in 2013. This allowed for doubling funding for road maintenance (Figure 4.4) and mobilizing additional external financing for road rehabilitation. Overall, general government expenditure on roads increased from 1.2 percent of GDP on average in 2006–2008 to 2.1 percent in 2012.

43 These include MDL 192 million of state support for railroad transportation in 2007, MDL 136.1 million for aid transportation in 2008 and MDL 70 million for naval transportation in 2008. See Chapter 2 for a discussion of classification issues (capital versus maintenance expenditure).

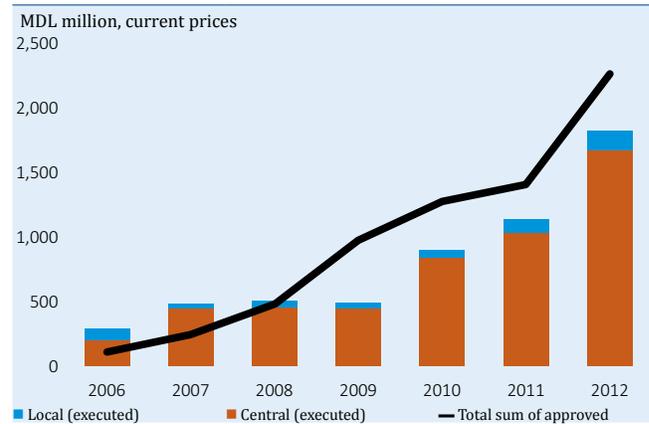
44 The bulk of spending in the transport sector at the local level (62 percent in 2011 and 47 percent in 2012) was accounted for by subsidies for municipal trolleybus and motor vehicles (in Chisinau) to cover the price-tariff gap and losses.

Figure 4.1: Trends in Capital Spending in the Transport Sector, 2006–2012



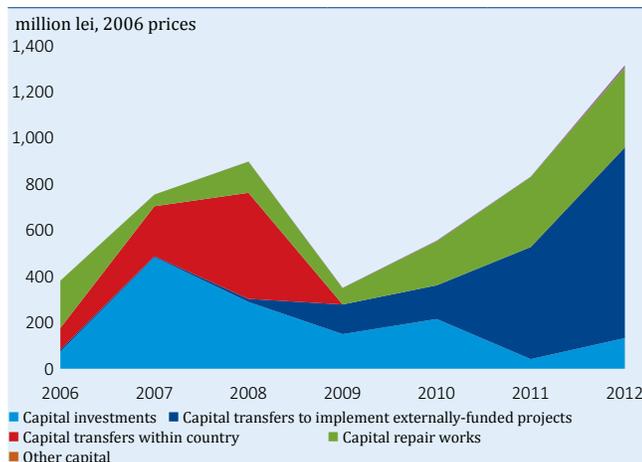
Source: Moldova BOOST, Bank staff estimates.

Figure 4.2: Execution of Local and Central Capital Spending on Roads, 2006–2012



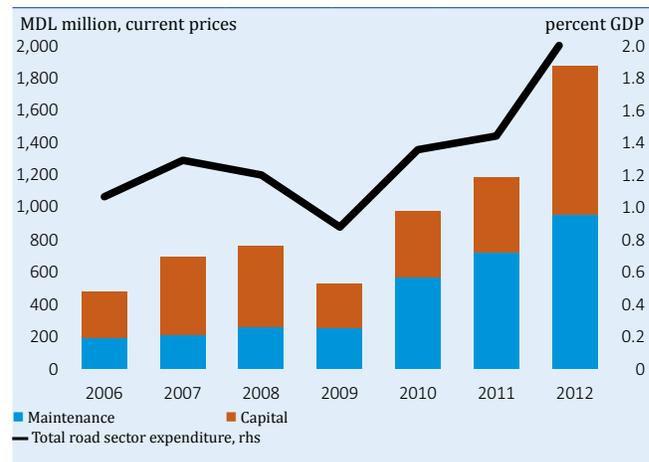
Source: Moldova BOOST, Bank staff estimates.

Figure 4.3: Transport Capital Spending by Economic Category, 2006–2012



Source: Moldova BOOST, Bank staff estimates.

Figure 4.4: Expenditures in the Road Sector, 2006–2012



Source: Moldova BOOST data, Bank staff calculations.

Strategic Context

Moldova’s National Development Strategy (NDS) calls for increased public investment in road infrastructure to improve competitiveness and access to services. The NDS underscores the role of the road sector for economic development (specifically to stimulate exports under the Deep and Comprehensive Free Trade Agreement (DCFTA) between Moldova and the European Union) and for “harmonious regional development and access of population to public services”. Road safety is another important concern, together with the negative environmental impact of poor road conditions. The NDS objective is to have 80 percent of roads in good and very good condition by the end of 2020.

Upgrading transport and logistics is essential to promote trade and growth, particularly for the wine sector, agro-industry and other manufacturing for export.⁴⁵ In 2012, Moldova ranked 132nd out of 155 countries in the World Bank's logistics performance index. This reflects, among other factors, the low quality of infrastructure, poor logistics competency and inefficient customs procedures.

Improvements to local roads are instrumental to increasing access to markets as well as to social, educational and medical services in rural areas. Better roads are crucial to the success of reforms in the health and education sector, as school network optimization and public hospital network restructuring may increase distances to public services for some citizens.

Under the Land Transport Infrastructure Strategy for 2008–2017, several reforms were undertaken, notably to road maintenance financing, organization and contracting. In 2009, the revised Road Fund Law included commitments for allocating no less than 50 percent (2010), 65 percent (2011) and 80 percent (2012) of revenue from the fuel excise tax to the Road Fund for maintenance. The level of the fuel excise tax was also increased and is to be further increased in the years to come: in early 2013, Government adopted a rule linking the growth of excise rates on fuels to at least the growth rate of nominal GDP.

A Transport and Logistics Strategy was drafted in 2012, focusing on rehabilitating the core national road network. The draft strategy for 2013–2022 aims for all roads (1,198 km) in the core national network to be rehabilitated and in maintainable condition by 2018. Other objectives include providing year-round access on local/rural roads to national road systems from all localities in the country and reducing the number of road accident fatalities by 50 percent by 2020. The draft strategy contains a ranked list of investment projects, including customs, roads, port and air transportation infrastructure. Total cost estimates, expected start date, expected delivery date and strategic relevance are being developed. The strategy lists areas where investment could be carried out by the private sector, particularly in the rail and air transportation sectors, and also includes actions for improving export supply chains and reducing time to market. This includes both legal and regulatory reforms and equipment investment, notably to modernize border crossing points.

Key Issues and Policy Options

Diagnosis and policy recommendations below focus on the road sector, although significant modernization and rehabilitation needs exist in all of the transport and logistics sub-sectors. The road sector transports 95 percent of inter-urban passengers and 85 percent of freight, and is the main focus of the Government strategy. Three key areas stand out if road infrastructure is to support inclusive growth:

- **Funding:** Current funding levels are insufficient to meet Government objective to have 80 percent of roads in good condition by 2020. In addition to efforts to mobilize additional external funds (including by ensuring

⁴⁵ The trade and logistics sector in Moldova includes largely private enterprises in roads, a state-owned railway, state-owned and operated airports, state and private airlines and a mainly privately operated maritime/ports sector (with the exception of Ungheni Port, which is an SOE).

adequate funding for maintenance), strategic decisions are needed on the relative benefits of additional investments in the transport sector relative to capital expenditure in other sectors and other (recurrent) expenditure. Additional prioritization of planned road repairs and rehabilitation will be necessary.

- **Efficiency:** Efficiency gains can ensure existing resources yield timely and cost-effective improvements in road infrastructure. At the local level, improving efficiency will require addressing capacity issues.
- **Equity:** Greater equity in access to public services needs to be considered in the allocation of funding (particularly for local roads) together with capacity building in order to raise the efficiency of local authorities.

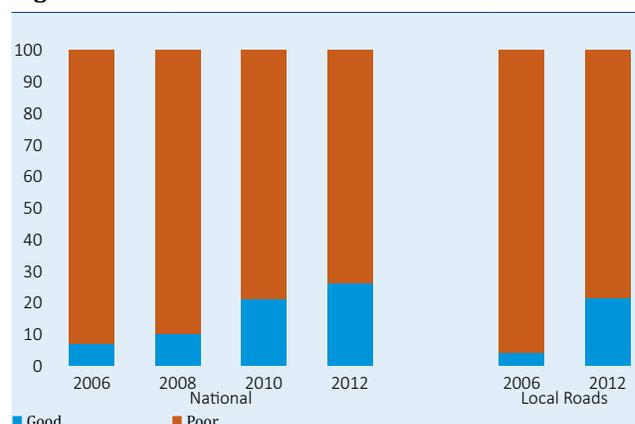
Road Sector

Moldova's road network remains in poor condition, requiring substantial maintenance, repair and rehabilitation outlays. The road network is extensive, so the primary objective is rehabilitation and asset value protection rather than expansion.⁴⁶ Due to a considerable reduction in maintenance expenditures after 1990, roads deteriorated dramatically, leading to a massive loss of road network asset value.⁴⁷ While 70 percent of national roads were considered in good condition in 1992, in 2006 only 7 percent were in good to fair condition.

Increased funding has halted declining road condition in recent years, but much remains to be done to restore the road network to a satisfactory condition. There has been steady progress in recent years in rehabilitating and repairing roads. Nevertheless, currently only about 26 percent of national roads are in good to fair condition, 54 percent in poor condition and about 20 percent in bad condition (Figure 4.5). The situation for local roads is worse, with 22 percent in fair condition and the rest in poor to bad condition.

Government has worked with international financial institutions⁴⁸ to establish a broad road sector program for the period 2011–2014. The

Figure 4.5: Road Condition in Moldova



Source: Government of Moldova, World Bank.

Note: "Good" designates roads classified as "Good" or "Very Good" or "Fair". "Poor" designates roads classified as "Poor", "Bad" or "Very bad".

46 The total length of the Moldovan road network (excluding Transnistria) was 9,322 km in 2011, of which 3,335 km are national roads. The density of the road network, 314 km per 1,000 km² and 2.6 km per 1,000 persons, is considered adequate. The size and location of this road infrastructure is not, however, optimal in relation to maintenance capacity and economic needs.

47 The loss of road network asset value due to insufficient maintenance and rehabilitation was estimated at USD 3.6 billion in 2007, equivalent to 1.4 times Moldova's GDP (World Bank, 2007).

48 Including the World Bank, the European Investment Bank (EIB), the European Bank for Reconstruction and Development (EBRD), the European Commission (EC) and the Millennium Challenge Corporation (MCC). The Government's Road Sector Program was supported with funding from the World Bank (IDA) until 2011, while the EBRD, EIB, EC and the MCC continue to provide very substantial funding.

program includes a prioritized pipeline of road rehabilitation projects with expected costs and likely sources of funding. It also includes a number of road sector reforms as well as road design and feasibility studies. The program will be expanded for a longer time horizon as part of the planned adoption of Moldova's Transport and Logistics Strategy until 2018.

Funding for road maintenance through the Road Fund in 2013 and 2014 falls short of commitments under the Land Transport Infrastructure Strategy (LTIS). The 2013 allocation for the Road Fund (MDL 1,079 million) is below the MDL 1,245 million committed in the LTIS—a condition of road financing from international financial institutions—leaving a funding gap of MDL 166 million, or a projected 0.2 percent of GDP. To increase funding for road maintenance and repairs, the fuel excise tax or the percentage of the fuel excise tax revenue allocated to the Road Fund would have to be further adjusted for 2014.

Relatively low traffic levels limit potential for greater private sector involvement in road rehabilitation through public-private partnerships (PPPs). There is also uncertainty about the willingness and ability of road users to pay for the use of roads through tolls. The NDS calls for exploring the PPP potential in road infrastructure and logistics services.

Limited potential for private involvement makes prioritization and greater efficiency in using available public funds all the more crucial. In particular, the road maintenance system can be made more efficient. Administration costs exceed 25–30 percent of total spending, whereas the law prescribes a ceiling of 14.5 percent. Moldova is to implement a needs-based resource allocation system based on a Road Asset Management System by 2014 as part of its action plan for the road sector as well as put in place new road maintenance contracts (unit cost and performance-based contracts) over 2013–2017. The Government decided in 2012 to consolidate road maintenance companies, reducing their number from 38 to 12; this consolidation process is well underway.

Local road infrastructure is poorly managed and deteriorating due to limited resources and poor capacity of local public authorities. There is no transparent formula for resource allocations for local roads, which are negotiated annually. Poor management and insufficient funding for maintenance results in unequal access to public services (health, education, market access for farmers, etc.).

Responsibilities for maintenance and repairs/rehabilitation of local roads need to be optimized, focusing on the core network at the central level and capacity constraints at the local level. The Ministry of Transport and Road Infrastructure has recently drawn up a list of 35 candidate local roads for promotion to republican status. The process of selection is primarily driven by improving connections between and access to magistral and republican roads. The ministry is frequently subject to political pressure to improve local roads because technical and financial resources at a local level are inadequate. This draft list is an attempt to respond to such pressures. However, were such a shift to be implemented, the responsibilities of the ministry and the State Road Administration would increase, not least in monitoring the usage and condition of these additional roads.

Railways

Railway density of 32 km of railway lines per 1,000 km² is comparable to Romania and Ukraine,⁴⁹ but the railway network is technically underdeveloped⁵⁰ and in poor condition. The railways in neighboring countries are electrified while the Moldovan rail network is not and, in some cases, have different gauges, thus presenting problems for transit. As a result, traffic volume is low and declining. The traditional role of Moldova railways for international transit traffic is hampered by the continuing Transnistria conflict, even though agreements for transit trains have been reached recently.

The railway system is in need of significant repair and upgrading, but inefficiencies and currently available revenue do not allow for rehabilitation and modernization. The Ministry of Transport and Road Infrastructure estimates that about 23 percent of the network, or over 270 kilometers of track, needs urgent repair, at an estimated cost of USD 27 million. The strategy also foresees investments to improve port access by rail. It is unclear if investment to expand and modernize rail passenger services is an efficient and financially sustainable solution.

Policy Options

Government needs to make strategic decisions on the relative benefits of additional investments in the transport sector relative to capital expenditure in other sectors and relative to other (recurrent) expenditure. In order to ensure continued external funding by international financial institutions and donors for investments in the road sector, the Government will have to comply with its commitments for adequate funding of road maintenance through the Road Fund.

The Transport and Logistics Strategy will have to clearly prioritize investments in the road sector, to direct available resources to the most efficient uses.

A first step towards raising efficiency is to implement measures to improve road maintenance. Efficiency can be raised by increasing competition among road maintenance companies for contracts, by optimizing the maintained road network length and by implementing road maintenance through multi-annual contracts (3–5 years).

Local government capacity for road transport needs to be strengthened and local resources increased to ensure school and hospital network optimization works. In particular, local authorities would benefit from increasing capacity for planning, programming and executing road maintenance and rehabilitation works. Preparing new maintenance and design manuals (see Chapter 3) will be useful for local roads. In addition, rules need to be defined and implemented for resource allocations to local governments for local road maintenance and rehabilitation.

For railway and air transportation, enabling reforms come first. The railway has to be reformed and restructured

49 The national railway system of Moldova consists of 1,045.4 km of non-electrified main lines (about 40 km of which are double-track) with 90 stations.

50 Cf. the lack of double track sections, of electrified lines, and limited speeds due to the condition of the infrastructure.

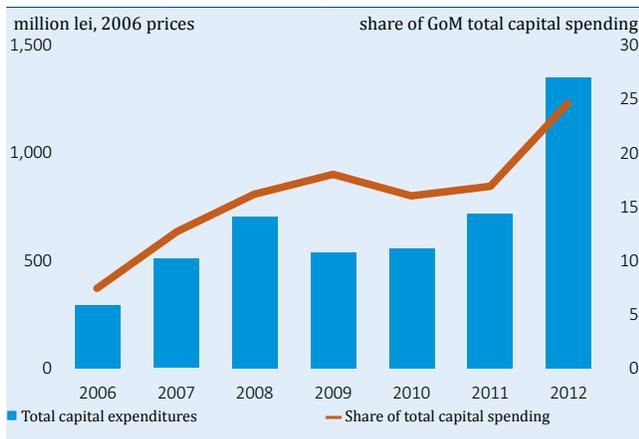
before any major investments in infrastructure upgrades and rolling stock can be carried out. In the air transport sector, the first sequence of reforms also consists in amending the legal and institutional framework, notably to enable the privatization of Air Moldova.

B. Agriculture: Better targeting investment subsidies for inclusive growth

Trends and Composition of Capital Spending in Agriculture

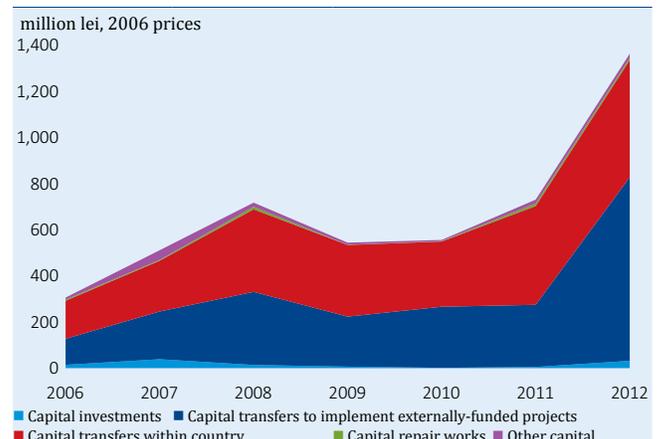
About half of annual capital spending in agriculture went to transfers to farmers as investment subsidies in 2010–2012. These transfers have remained stable as a percent of GDP (around 0.4 percent), although the share of the agriculture sector in total capital spending has been declining (Figures 4.6 and 4.7).

Figure 4.6: Trends in Capital Spending in the Agriculture Sector, 2006–2012



Source: Moldova BOOST, Bank staff estimates.

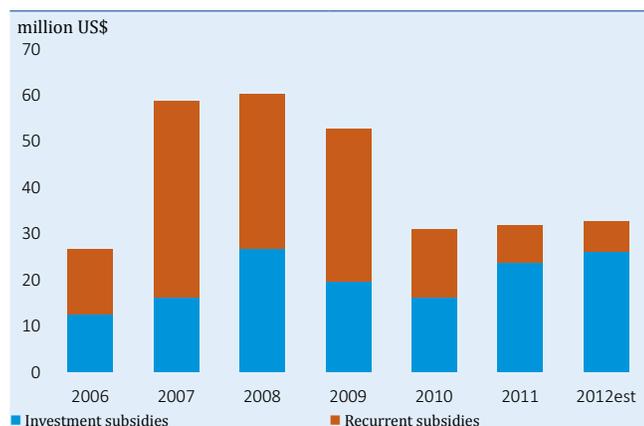
Figure 4.7: Agriculture Capital Spending by Economic Category, 2006–2012



Source: Moldova BOOST, Bank staff estimates.

Since 2009, agricultural subsidies have been reoriented towards support for investment, and away from subsidizing recurrent needs. Investment subsidies now account for 80 percent of the Agriculture Support Fund, up from about 30 percent in 2007 (Figure 4.8).

Moldova spends comparable amounts on agricultural subsidies as a fraction of GDP as neighboring countries. However, in relation to the weight of the agricultural sector in the economy, the support Moldova provides to its producers has been significantly less than that provided by other countries in the region, including Romania—which has started receiving EU CAP support in 2007—and Ukraine (Table 4.1).

Figure 4.8: Agricultural Support in Moldova, 2006–2012

Source: Moldova BOOST, AIPA.

Table 4.1: Moldova Agricultural Support in Regional Perspective

	2006	2007	2008	2009	2010	2011
<i>Ag Subsidies as % of GDP</i>						
Moldova	0.8	1.3	1.0	1.0	0.5	0.5
EU-27	0.9	0.8	0.8	0.8	0.6	0.6
Ukraine	2.8	0.9	1.1	1.4	1.5	
Russia	0.4	0.5	0.7	0.6	0.5	
<i>Ag Subsidies as % of GAO</i>						
Moldova	2.6	5.5	3.8	4.4	1.9	1.7
EU-27	28.9	23.5	22.0	23.3	19.7	17.5
Ukraine	11.2	3.6	4.6	10.4	5.5	
Russia	17.2	18.2	21.9	22.1	21.3	

Source: OECD [<http://www.oecd-ilibrary.org/statistics>] for EU-27, Russia and Ukraine; Moldova data estimated based on BOOST and NBS statistics.

Strategic Context

Modernizing the agriculture sector is key for Moldova’s current and future growth, and for poverty reduction. Agriculture accounted for 13 percent of GDP and 28 percent of employment in 2009–2011; agricultural and food exports accounted for close to half of total exports. At the same time, poverty incidence is highest in rural areas, particularly among farmers and agricultural workers.

High output volatility and low market competitiveness are two key bottlenecks. Continued under-investment, combined with labor and skills shortages, have held back growth. The high volatility of agricultural output reflects under-developed weather-related risk mitigation instruments, including limited access to irrigation, and a low rate of adoption of modern agronomic practices and technologies. At the same time, innovative insurance schemes for agriculture are lacking. On the market side, most of the agricultural produce presently grown in Moldova does not meet requirements for safety, quality, quantity, variety and packaging for internal and external markets. This is particularly true of high-value products such as berries, grapes, other fruits or vegetables.

Agriculture growth in 2010 and 2011 was fueled by price increases, but sustained growth and increased resilience require structural improvements through investments and innovation. Agricultural prices increased on average by 43 percent in 2010, supporting a 20 percent growth in agro-food exports and a 6 percent reduction in rural poverty. These trends continued in 2011, until the summer 2012 drought led to a sharp contraction in agricultural output (-23 percent).

Sector policy focuses on supporting market competitiveness and modernizing the sector to take advantage of EU integration. Capturing the opportunities opened by the prospective Association Agreement and the DCFTA between Moldova and the EU requires addressing food safety and quality issues.

Streamlining the agricultural subsidy system with the aim of modernization and improved market access is a priority.⁵¹ Agricultural subsidies are expected to support wine sector restructuring and modernization, the development of a modern market infrastructure, reforms to the meat and milk production sectors, and support to the development of high-value agriculture. A new strategy for agriculture and rural development is being prepared, in which further agricultural support reform is expected to play an important role.

Key Issues

The agricultural support system has evolved significantly over the past few years and is now better positioned to address sector challenges. Strategic guidance has been improved, and the creation of a specialized institution responsible for managing and controlling the allocation of agricultural subsidies has significantly strengthened efficiency and transparency. The Agency for Interventions and Payments in Agriculture (AIPA) was set up in 2010 and is responsible for the authorization, payment and control of subsidy allocations, largely relying on computerized systems and processes. Moldova's present support system in agriculture emulates a number of EU CAP features, mainly related to rural development investment support.

Investment subsidies in 2012 aimed at encouraging modern and innovative production and post-production practices, with a strong emphasis on the high-potential high-value sector, and strengthening producer groups. The 2012 Agricultural Support Fund included eight programs, six of which were investment-type measures.⁵² Of these, three supported productivity and market competitiveness improvements in the high-value horticultural sector. Starting in 2012 the Government introduced special provisions for producer groups (i.e. higher subsidy levels compared to individual producers) willing to collectively purchase new post-harvest technologies and equipment. This initiative has been driven by the critical constraint to individually fund costly post-harvest infrastructure investments, which are crucial for farmers' integration into modern supply chains. The financial constraint is particularly binding for small- and medium-size farmers, who are also the primary producers of high-value crops.

Agricultural support to small or individual producers is modest, and not commensurate with their current and potential role in high-value agricultural production. Large corporate farms captured about 75–80 percent of agricultural subsidies over the past three years. The only subsidy largely benefitting smaller-size individual

51 The ten strategic priorities of the Ministry of Agriculture and Food Industry for the period 2011–2015 are: 1. Implement food safety reform; 2. Carry out wine sector restructuring and modernization; 3. Support the development of a modern market infrastructure; 4. Implement conservation-oriented agriculture; 5. Reform the meat and milk production sectors; 6. Support the development of renewable energy from agricultural raw materials; 7. Reorganize the agricultural education and research system; 8. Streamline the agricultural subsidy system; 9. Implement basic information systems to support effective food chain operation; and 10. Support the development of high-value agriculture.

52 All investment subsidies represent grants to producers that cover a portion (normally between 30 and 50 percent) of their investments in productive assets, such as agricultural machinery and equipment, equipment for post-harvest handling and processing of fruit and vegetables, plantation of new orchards and vineyards, equipment for protected field vegetable production, as well as livestock breeding material and technological equipment.

farms⁵³ is the one stimulating investments in protected-field vegetable production. While the primary objective of agricultural support is to raise productivity and exports, greater support to the individual farm sector may increase equity as well as promote greater efficiency. The current allocation of subsidies is hardly consistent with the individual sector's weight in total agricultural output, which is significantly higher than that of the corporate sector—70 versus 30 percent (see Box 4.1). Even for horticulture, which is primarily produced by small and medium farms, the correlation does not appear very strong.

Box 4.1: Overview of Moldova's Farm Sector

The farm sector of Moldova consists of two major sub-sectors: the corporate sector with large-scale enterprises, and the individual sector of peasant farms and household plots. All farms are private.

- Small-scale farms are largely subsistence and semi-subsistence operations. Their production is varied to ensure farmer self-sufficiency, although they have a strong focus on labor-intensive high-value crops (fruits, nuts, grapes, vegetables, potatoes) that are largely sold for cash. The high specialization of the small-scale sector in the production of high-value crops explains its large share in gross agricultural output.
- Large-scale enterprises, on the other hand, are specialized in production of low-value crops (cereals, oilseeds, sugar beets) primarily grown on leased land, and have highly mechanized operations.
- A medium-size (10 to 100 hectares) commercial type farm sector is gradually emerging, most often specializing in the production of high-value crops (berries, table grapes, other fruits, vegetables), which for the most part are grown on own land.

The 2011 subsidy de-capping reduced inclusion of individual farms in the subsidy allocation process and increased both average subsidy size and the gap in the average subsidy received by small versus large producers. The comparison of 2010 (capping on) with 2011 and 2012 (capping off or ceilings increased) numbers tells a very compelling story (Table 4.2).⁵⁴ As a result of de-capping, the participation of smaller individual farms in the subsidy scheme was reduced by about 6 percentage points. The de-capping also widened the difference in the average subsidy amounts received by small and large farms

The regional distribution of agricultural subsidies across Moldova's three regions is consistent with the distribution of crop production, with larger amounts going to the north. Farms in the north, which are larger and enjoy better climate and soil conditions, received larger subsidies than farms in the rest of the country.

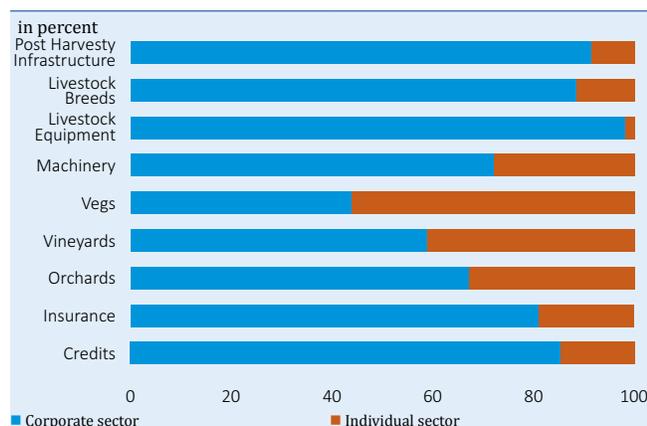
It is not clear that current investment subsidies are effectively supporting greater investment. Unsurprisingly, the largest and most resourceful sector players capture most of the investment grants. But significant deadweight losses may accompany this process, as shown by EU experience. Evaluations carried out on the impact of EU farm investment support have shown poor targeting leading to deadweight effects of support for large productive farms undertaking traditional rather than innovative investments, and support for farms with significant asset value which could invest without public assistance.⁵⁵ In Moldova this risk is exacerbated, as the limited public envelope

53 The available data allow distinguishing between corporate and individual farms, although specific farm sizes are not provided. Individual farms can vary; therefore "individual farms" are not always "small farms" (and in fact can be fairly large enterprises in some cases). However, the per-unit data clearly suggest that individual farms are generally smaller than the corporate enterprises.

54 Table 4.2 estimates are based on eight subsidy items provided in all three years (2010–2012).

55 Source: Commission Staff Working Paper, Impact Assessment, Annex: 4 Rural Development, October 12, 2011.

Figure 4.9: Subsidy Beneficiaries, 2012



Source: AIPA.

Table 4.2: Individual and Corporate Beneficiaries of Agricultural Support, 2010–2012

	2010	2011-2012
% of subsidy by individual farms	28.1%	22.6%
Avg subsidy size, USD	7,511	8,380
Avg subsidy size – corp sector, USD	10,122	12,526
Avg subsidy size – indiv sector, USD	4,520	3,929

Source: AIPA.

available for investment support is captured by a small number of large farms investing in traditional technologies and equipment, thus limiting both the magnitude of the impact and spillover effects. The reduction in the investment associated with subsidies in 2011 and 2012 is suggestive of diminishing returns on public resources (Figure 4.10). This could be explained by an environment that became less favorable than in 2010. Another factor is the removal of the cap on subsidies in 2011.

The 2013 agricultural support program has been strengthened to enhance program coverage, stimulate innovative investments and target young farmers and producer groups. The announced 2013 agricultural envelope is similar to that of previous years (at MDL 400 million, or USD 33 million) and includes the eight programs of 2012 plus two additional programs. A number of revisions and adjustments addressed shortcomings of the 2010–2012 programs. The cap on subsidies received by any given producer has been reintroduced and/or ceilings were reduced for some programs, subsidy rates decreased for some types of traditional type machinery and equipment, the number of programs targeting producer groups increased and special support to young farmers was introduced.

Figure 4.10: Investment-to-Subsidy Ratio, 2010–2012



Source: AIPA.

Some elements of the 2013 program need to be treated with caution, accounting for potential risks and adverse effects. Increased subsidy rates compared to 2012 have been set for a number of programs, some exceeding 50 percent of the investment value. Such high subsidy rates may distort incentives and direct investments away from the most profitable sectors, which is especially problematic in the case of sectors facing market access problems (such as livestock). Likewise, it is unclear why, for example, packing house investments benefit from a lower subsidy rate than cold storage investments (30 percent vs. 50 percent), even though the market failure is much higher in

the packing house business. Putting public money in sectors where there is no real market failure reduces impact of public capital expenditures.

Policy Options

Past programs should be evaluated as part of the development of a new strategy for agriculture and rural development. The restructuring and streamlining of the agricultural support system that began in 2010 is still work in progress. It would be timely to undertake a diagnosis of the results to date and strategize further reform options. The evaluation should identify programs that should be kept and programs that should be phased out or abolished, as well as critical gaps or missing programs in the current support envelope. Program duration and subsidy rates should be assessed and revised as needed (considering declining subsidy rates or phasing out programs over time). A set of reform options is proposed in Table 4.3 below.

A multi-year program is needed to set clear rules of the game within a specific time span to stabilize expectations of the private sector and to improve program planning, implementation and evaluation. The present subsidy program is subject to revision and amendment every calendar year, or at times even within a single year. This short-term perspective fails to provide stability and consistency of policy messages and instruments, and makes the program vulnerable to the influence of strong agricultural lobbying groups. A multi-year program would be better positioned to overcome these challenges, and would also improve program planning, execution, monitoring and evaluation. Some flexibility of the multi-year program could be retained to allow for limited correction and/or supplementary details within the adopted programs, based on timely monitoring information.

While efficiency considerations in investment subsidy allocations may yield a program that benefits the most resourceful farmers, equity must be considered to achieve long-run shared growth. Adjustments to the limits of subsidy amounts available per individual beneficiary and reductions in subsidy rates may help improve program coverage (and thus inclusion) within resource constraints and possibly without reducing overall impacts. Limiting the subsidization of traditional large-scale agricultural machinery and refocusing support to target smaller-scale high-value-related technologies and equipment (which is primarily the area of small and medium farmers) would lead to a more equitable distribution of public capital resources. Targeted support to producer groups is an important vehicle for strengthening small farmers' capacity to access markets and thus improve incomes.

Investment subsidy programs should be more selective and adopt a strategic, focused approach to fostering market competitiveness and integration. A first step would be to conduct a thorough review of the results produced by ongoing investment programs, especially programs that have been in place for a long time. Programs that currently absorb a large share of resources (such as the machinery and equipment program, orchards and vineyards, and the post-harvest equipment program) could be narrowed to focus exclusively on supporting (i) innovative production and post-production practices with a stronger impact on long-term sector productivity and competitiveness, as well as (ii) sub-sectors with comparative advantages. Any support for investment should have an in-built termination or review clause in combination with a declining rate aimed at gradually reducing the dependence on the subsidy.

The agricultural support program should include targeted instruments dealing with the shortage of human capital, high output volatility and related climate change patterns and a strong market focus. Additional elements that would help re-shape Moldova’s agriculture include the following:

- (i) The competitiveness agenda presently supported through targeted private investments needs to be expanded to also support private sector compliance with market requirements and standards, as key elements of enhanced market access.
- (ii) Efforts to enhance market competitiveness should go hand in hand with efforts to raise agricultural productivity, taking into account climate change. State support to implement weather-related risk mitigation tools as well as climate change adaptation measures could be delivered as a mix of financial support (e.g., new climate-resilient plant varieties or co-financing investments to mitigate weather risks, etc.) and knowledge transfer.
- (iii) Efforts to retain young people in agri-business should encompass a wide-ranging approach built on three key pillars: streamlining the agricultural education system, customizing public support to young farmers and a dynamic rural development agenda.

Table 4.3: Summary of Proposed Reform Options for Agricultural Investment Programs

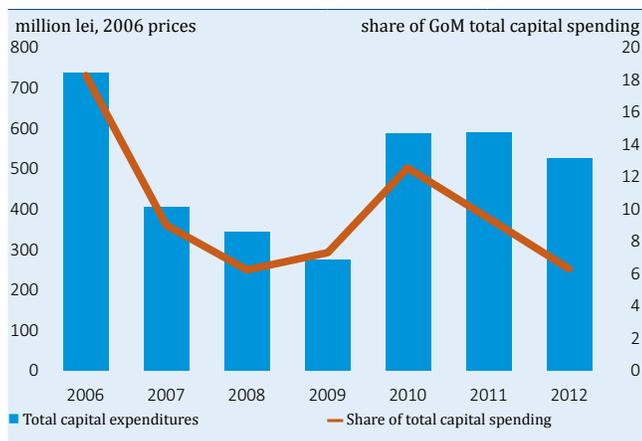
#	Support Measure	Proposed Reform Options
<i>Refocus investment subsidies to trigger innovation, market integration and farmer inclusion</i>		
1	New orchards and vineyards	Consider focusing exclusively on supporting innovative highly productive technologies that are not yet widely adopted.
2	Protected field vegetables	This program, as amended in 2013, should be continued, with subsidies covering only investment purchases.
3	Agricultural machinery and equipment	Consider abolishing the program and/or narrowing its scope by supporting exclusively modern high-tech agricultural machinery and equipment, particularly aiming to address the priority high-value sector.
4	Livestock equipment	As market (especially export market) opportunities for livestock products remain limited, the two programs need to be closely monitored and possibly re-focused. The revision could narrow support to selected livestock products that exhibit promising market opportunities.
5	Livestock breeds	
6	Post-harvest and processing equipment	This program is generally effective but could be strengthened by taking a differentiated support approach by granting higher subsidy rates to innovative activities. Review priorities and consider focusing this type of support exclusively on the high-value sector.
<i>New cross-sector programs for a comprehensive approach to sector challenges: attract young people, adapt to climate change and strengthen market focus</i>		
7	Food safety and quality requirements	Support private sector efforts to comply with EU food safety and quality requirements to improve market access for crop and livestock products. Consider supporting producer groups through a higher subsidy rate.
8	Climate change adaptation	Put in place a climate change package that would combine: (i) recurrent support to stimulate adoption of new high-yielding varieties, as well as heat- and drought-resistant varieties/breeds; (ii) investment support to climate-smart equipment/systems (anti-hail, anti-frost, on-farm irrigation, other); and (iii) related technical assistance and advice on broad climate change risks and adaptation measures at the farm level as well as more specific advice/training on the most efficient cultivation/use of new varieties and equipment.
9	Young farmers	Support for young farmers (below 40 years of age) was introduced in the 2013 program. Consider deepening this support by providing one-time financial support for the set-up of own farms, together with business and market advice. This new program should be assessed after a 2–3-year time period, to decide on its continuation or termination.
Proposed cross-program reforms:		
1. Cap the subsidy (put an upper limit) offered to one enterprise.		
2. Put a time limit—3 to 5 (in some cases 7) years—on the provision of the subsidy.		
3. Reduce subsidy size/rate over time.		
4. Consider setting differential subsidy rates/sizes (spanning from 10 to max 50%).		

C. Utilities: Improving water and sanitation outcomes

Trends and Composition of Capital Expenditure in the Utilities and Housing Sector

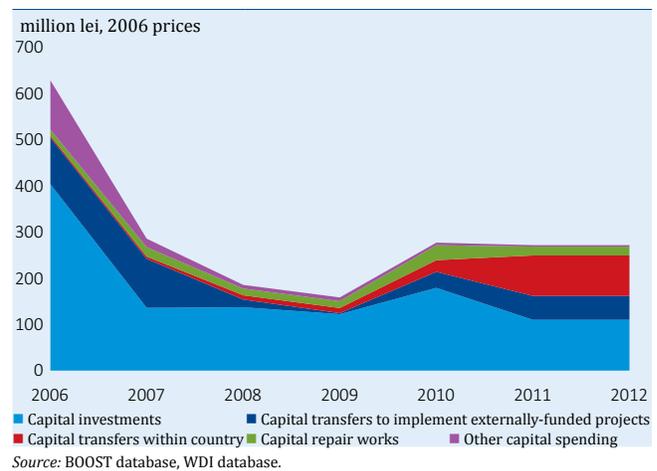
Following a sharp decline in 2007–2009, utilities and housing capital spending recovered in 2010–2011 (Figure 4.11). Utilities expenditures account for three quarters of sector capital spending on average, and are concentrated in water and sanitation—particularly investments in municipal and village-level water and sewage infrastructure (Figure 4.12).

Figure 4.11: Utilities and Housing Capital Spending Trends, 2006–2012



Source: BOOST database, WDI database.

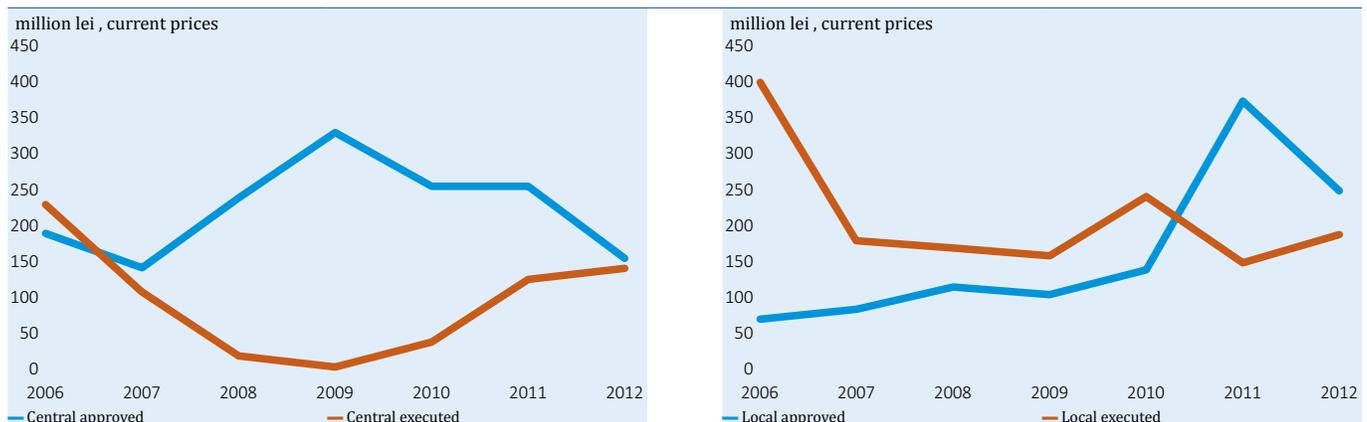
Figure 4.12: Utilities Capital Spending, by Economic Category, 2006–2012



Source: BOOST database, WDI database.

The decrease in capital spending on utilities observed between 2007 and 2009 was mainly due to the under-execution of the central government budget. Both central and local government approved amounts have increased over the period while executed amounts declined (Figure 4.13). Under-execution of the central budget was due to delays in project implementation. Delayed projects included those under the National Development Fund and externally-funded projects.

Figure 4.13: Trends in Central and Local Government Capital Expenditures for Utilities



Source: BOOST database.

Due to project implementation weaknesses, Moldova has not been able to fully utilize available external funding. In 2012, 51 percent of capital spending in the utilities sector was funded from general government revenues, 4 percent from fees and revenues raised independently by local authorities and 45 percent externally funded.

Strategic Context

The Government's 2007 Water and Sanitation Strategy⁵⁶ sets out specific medium-term (2008–2012) and long-term (2012–2025) objectives. It calls for significant improvements in the efficiency and reliability of existing systems, and for system extensions to meet the MDG targets⁵⁷ for drinking water and sanitation and the European Commission Directives on water supply and sanitation.⁵⁸

Key Issues

With decentralization, water supply and sewage systems deteriorated. The decentralization of water and sanitation services after 2000 devolved responsibility for service provision to municipalities and their water utilities ('Apa canals'). Revenues from tariffs and all other fees raised independently by local authorities barely covered operational and maintenance costs. As a result of the generally limited institutional capacity and experience of municipalities in mobilizing and managing additional funds, investment lagged and water supply and sewage systems deteriorated. In addition, system fragmentation restricted economies of scale, thereby reducing efficiency.

Geographic disparities have also increased, to the detriment of secondary and tertiary cities. The largest rehabilitation and repair needs are in smaller cities, but their ability to raise revenues is weak: total revenue generated by Apa Canal Chisinau in 2007 was 360 million MDL compared to 170 million MDL raised by the other 41 Apa canals combined. Inadequate resources and capacity constrain spending in areas where the need is most significant.

Investment and repair needs are considerable. In 2006, all municipalities and towns had piped water, but only about half of rural settlements, and only 40 percent of rural communities had rudimentary sewage. Both urban

56 It defines the strategic framework for action in the sub-sector, along with the objectives for infrastructure development subsequently outlined in the National Regional Development Strategy 2010–2012 and the 2008 Draft Water Law.

57 Targets are set at 65 percent of Moldovans with access to improved sources of water (e.g. piped water into dwelling) and 65 percent of the population with improved sanitation facilities (e.g. flush or pour-flush to piped sewer system) by 2015.

58 A revised strategy currently under preparation updates sector objectives. For instance, it recommends that regulatory framework improvements be focused on the approximation of three EC Directives: the Water Framework Directive 2000/60/EC, Directive 91/271/EEC on urban waste water treatment and Directive 98/83/EC on quality of water intended for human consumption.

and rural infrastructure was in a state of advanced disrepair, with nearly 45 percent of the systems in need of rehabilitation. As of 2012, 44 percent of registered water supply systems and 40 percent of waste water management systems still required full rehabilitation. The rate of pipe breakage was about 7.4 breaks per km/year in 2010, which is 30 times higher than the rate in well maintained Western European systems (Figure 4.14).⁵⁹ Poor water and sanitation systems in turn contribute to the proliferation of waterborne diseases.⁶⁰

The current level of water and sanitation capital spending is not sufficient to meet the Government’s strategic objectives of halting the deterioration of existing infrastructure, let alone to increase the supply and the quality of services. Spending needs over 2007–2025 for a variety of scenarios were quantified in a 2008 OECD/EUWI/DFID report.⁶¹ Under the baseline scenario of only halting system deterioration, capital expenditure requirements were roughly 500 million MDL per annum (in constant 2006 MDL). Budgeted allocations for capital expenditure in utilities fell short of the estimated funding needs, and actual spending has been even lower due to under-execution, thus increasing the spending gap with respect to the baseline scenario.⁶² The Government budgeted on average about 473 million MDL per year over 2010–2012, but only spent 291 million MDL a year.

Progress in expanding access to water and sanitation infrastructure has been slow. The share of the Moldovan population with access to improved water resources was 46 percent in 2006 and 55 percent in 2009. Given the speed of coverage expansion, the 65 percent target for 2015 is unlikely to be achieved. The share of the population with sustainable access to sewage was 43 percent in 2006 and had reached 54.6 percent in 2011, making the targeted 65 percent by 2015 also unlikely to be met (and prompting revision). Water resources and sanitation targets remain at 65 percent but are expected to be met by 2020 and 2025 respectively, rather than as early as 2015. Inequality in access to sewage is high: 90 percent of those with no access to sewage live in rural areas, and only about 5 percent of the rural population is connected to sewage systems. The percentage of the population with access to improved sanitation has not changed significantly since 2008 (45.9 percent); this also suggests that the target of 71.8 percent by 2015 is unlikely to be reached.⁶³

Figure 4.14: Pipe Breaks per Km/Year



Source: IBNET database.

Note: The data in this graph is for the latest year available (2005–2011).

59 World Bank, IMF, United Nations Moldova et al., 2009, “Moldova: Policy Notes for the Government”.

60 The incidence of diarrheal diseases for children under 5 (a proxy for incidence of waterborne diseases) was 5.6 per 100,000 in 2011 in Moldova compared to 0.4 on average in the EU (2009), 2.7 in Romania (2010) and 1.1 in Ukraine (2010) (WHO European Health for All database HFA-DB, 2012).

61 OECD/EUWI/DFID, 2008, “Facilitating Policy Dialogue and Developing a National Financing Strategy for Urban and Rural Water Supply and Sanitation in Moldova”, p. 105.

62 The draft update to the strategy re-evaluates investment needs. Expected domestic budget funding for the sector over 2013–2027 is estimated at about 458 million MDL per annum while projected external financing of about 351 million MDL per year over 2013–2027.

63 UNDP, 2012, “Analysis of the key achievements and challenges in the implementation of the national MDGs agenda”, Policy Brief 02/12, Moldova Policy Unit.

Policy Options

In the utilities sector, strengthening implementation capacity is key:

- Improvements to public investment management (described in Chapter 3) are required to raise the efficiency of water and sanitation investments. Emphasis should be placed on strategic guidance (through the development of master plans), appraisal (in particular with feasibility studies and environmental impact assessment) and implementation (see point below).
- Increased absorption of donor funds would be aided by improvements in the procurement and administrative skills of local agencies and utility companies. To maximize the use of available resources, and as foreseen in the national strategy, technical standards and guidelines for water and sanitation infrastructure design, construction and operation should be developed or revised.
- Governance and public service delivery issues associated with the transfer of responsibilities for water and sanitation services to municipalities in the 1990s must be addressed by pooling resources and capacities, searching for economies of scale and exploring ways to facilitate access to funding for local service providers

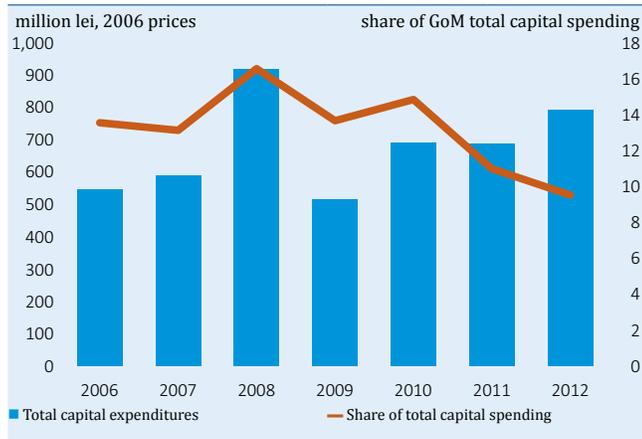
D. Education: From network optimization to quality improvements

Trends and Composition of Capital Expenditure in the Education Sector

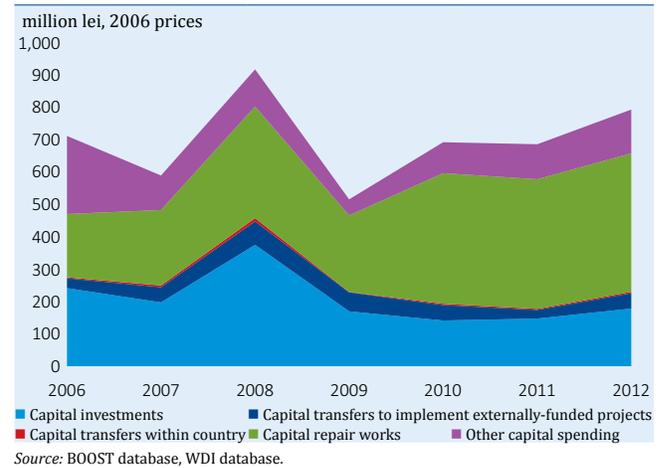
The share of capital expenditures in total education spending is now 7 percent, down from 15 percent in 2006. Still, in 2012, education remained the third largest sector in the capital budget (after agriculture and transport), with about 10 percent of total capital spending (Figure 4.15).⁶⁴

Sixty percent of capital spending in the education sector is at the local level. This reflects local government responsibilities in managing and financing schools. Three quarters of capital expenditures in the sector are financed from the general government fund, 10 percent are externally financed and the rest is funded from revenues raised independently by central and local public authorities.

⁶⁴ The decrease in the share of capital within total education spending stems from input-based financing and the associated norms and standards for resource allocation. Budget allocation within the sector is dominated by incremental budgeting practices. Protected budget categories—wages and social contributions, utilities and school meals—account for a major share of education budget expenditures. This crowds capital outlays out.

Figure 4.15: Capital Spending in Education, 2006–2012

Source: BOOST database, WDI database.

Figure 4.16: Distribution of Capital Spending in Education by Economic Category, 2006–2012

Source: BOOST database, WDI database.

Since 2009, capital investment in the education sector has declined while capital repairs increased, except for the pre-school level. Capital investment declined in general primary and secondary schools, as well as higher education (Figure 4.16). By contrast, capital investments in pre-school facilities have remained stable at MDL 16 million per year on average over 2006–2012. Capital repairs were mostly in pre-schools, gymnasium and lyceums.

Strategic Context

National strategies focus on quality, equal access and alignment with labor market needs. As set out in the 2011–2015 Consolidated Strategy for Education Development, the general objective of the Government is to provide “equitable and non-discriminatory access to quality education at all education levels for all children, including those from vulnerable families, those with special educational needs, and representatives of ethnic minorities”. The strategy also calls for vocational and technical education and higher education reform to adjust to the needs of the labor market. This objective is also prominent in Moldova’s NDS, which emphasizes the need to “align the education system to labor market needs in order to enhance labor productivity and increase employment in the economy.”

The education strategy includes monitoring indicators but lacks an estimate of the capital investments required to achieve objectives. The strategy includes milestones and indicators for monitoring and evaluation. It also includes public expenditure forecasts for each program and expected sources of funding, but does not include estimates of capital requirements (pace of rehabilitations or investment, expected costs, etc.).

Key Issues

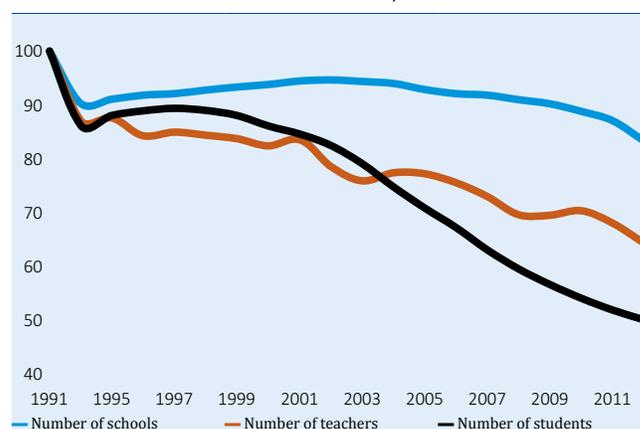
General Primary and Secondary

The general primary and secondary school network is over-sized. As a result of declining birthrates and outmigration, the demand for education at the general primary and secondary sub-sector level has diminished drastically over the last two decades. Yet the school network remains over-sized. There were 26.7 percent fewer students in 2007–2008 compared to 2002–2003; the reduction in the number of schools was minor in comparison, with 1534 schools in 2007–2008 compared to 1580 schools in 2002–2003 (Figure 4.17).

Rehabilitation needs are significant. About 60 percent of buildings are more than 30 years old and 41 percent of all school buildings require thorough repairs. Ramps for access by children with physical disabilities were built in only 11.2 percent of facilities.⁶⁵

The ongoing school network optimization and reform of school financing are expected to create space for needed capital outlays. Moldova has taken critical steps through the simultaneous implementation of “network optimization” (closure of schools with too few students, small classes or low student/teacher ratios, and reductions in staff) and piloting of per-student financing in two raions (Causeni and Riscani) in 2010.⁶⁶ Country-wide implementation of per-student financing is expected to generate savings of the order of 0.3–0.5 percent of GDP. Preliminary evidence from Causeni and Riscani suggests that significant reallocations of resources from recurrent to capital budget lines would then occur, with a larger portion of funds channeled towards the improvement of school water, sewage and heating systems.

Figure 4.17: Relative Declines in Number of Schools, Teachers and Students in Moldova, 1991–2011



Secondary Vocational/ Specialized and Higher Education

High youth unemployment and skills shortages suggest a need to further align vocational and technical education and higher education with labor market needs. The unemployment rate among Moldovans aged 15 to 24 years old in 2011 was 14.9 percent, compared to 6.7 percent nationally. Only 22 percent of young people found a job immediately after graduating in 2010, and a relatively small proportion of graduates are employed in the field in which they have obtained qualifications. Eighty five percent of companies complain about their young recruits' skills.

65 World Bank, IMF, United Nations Moldova et al., 2009, "Moldova: Policy Notes for the Government", pp. 50–56.

66 These were later joined by 11 additional raions and two municipalities in 2012. The reform is to be rolled out nationwide in 2013.

Raising the quality of vocational, technical and higher education requires new legislation to adjust the sector to European norms, reforms to the research and innovation system and development of curricula geared toward professionalization. Additional investments necessary to achieve objectives in vocational education are specified in the Action Plan to the *2013–2020 Vocational Education and Training (VET) Development Strategy*.⁶⁷

Pre-school

Government objectives to increase pre-school enrollment have generated new investment needs in the pre-school sub-sector. The MDGs and the 2011–2015 Consolidated Strategy for Education Development set specific targets for pre-school education, notably:

- (i) Raising the enrollment rate for pre-school programs for 3–6 year-old children from 41.3 percent in 2002 to 75 percent in 2010 and 78 percent in 2015;
- (ii) Increasing the enrollment rate for 6–7 year-old children from 66.5 percent in 2002 to 95 percent in 2010 and 98 percent in 2015;
- (iii) Reducing the discrepancies between rural and urban areas and between disadvantaged and middle-income groups.

Progress has been made towards these targets. While the target for 6–7 year-old children has proved difficult to monitor, the enrollment ratio for 3–6 year-old children was 81.8 percent in 2011. Progress has been greater in urban areas.⁶⁸ Reaching the targets for pre-school enrollment requires new investments, which have not been quantified at the country level.⁶⁹ In 2009, 230 Moldovan localities did not have pre-schools.

The Government's strategic goals have translated into sustained spending in equipment,⁷⁰ capital repairs and new kindergartens. The ongoing general secondary school optimization reform provides an opportunity to increase infrastructure for pre-schools or community centers, as the Government intends to use now vacant or redundant general secondary schools (especially in rural areas). Contributions from central authorities also financed the connection of 93 kindergartens to the gas supply system. In addition, the World Bank's Education for All Fast Track Initiative projects have added to kindergarten rehabilitation efforts and facilitated the creation/construction of alternative educational centers.⁷¹

67 The strategy approved by the Government in February 2013 acknowledges that "to a large extent, most VET institutions have obsolete equipment and this does not facilitate the development of professional abilities and requires major investments for upgrading." The rationalization of the VET school network and better utilization of resources is important to create fiscal space for quality-enhancing investments.

68 The ongoing Global Partnership for Education (GPE) Grant (USD 4.4 million effective since March 2012) continues efforts to expand coverage and address equity issues in rural localities with inadequate access to pre-school services as well as places a stronger focus on enhancing the quality of pre-school education services.

69 A system is in place under the GPE grant for selecting localities to be rehabilitated through ranking according to the cost-effectiveness of the proposed interventions in terms of increased access.

70 Computers, faxes, chairs, cabinets, etc.

71 EFA-FTI 1 and EFA-FTI 2 grants totaling USD 8.8 million supported access to pre-school services for about 9,000 children through the renovation and endowment of 65 pre-school institutions (6.4 percent of the total) and endowment of more kindergartens and community centers refurbished by local authorities.

Policy Options

Continuing the optimization of the secondary school network will allow redirecting funds towards quality enhancements in consolidated schools and raising access to quality pre-school education.

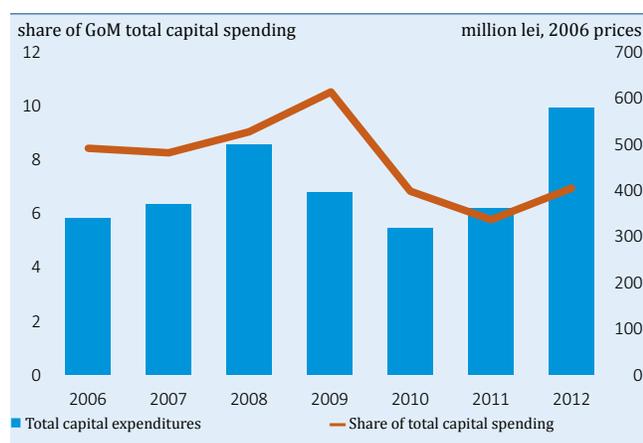
Recommendations for improving public investment management (particularly preliminary screening, project selection and monitoring) are particularly relevant for the education sector. Greater prioritization and improved screening of education projects will be needed to ensure capital spending in the education sector helps provide more equal opportunities. The proliferation of small objects with little preparation, interrupted funding and slow completion are especially acute in the education sector. While political bargaining will inevitably influence final allocations, developing a pipeline of projects that meet objective criteria at a first level of selection will help prioritization based on needs and equity. Better monitoring (notably with non-financial indicators and a more programmatic approach) will raise efficiency by linking inputs to outputs and outcomes.

E. Health: Optimizing the network to improve quality and efficiency

Trends and Composition of Capital Expenditures in the Health Sector

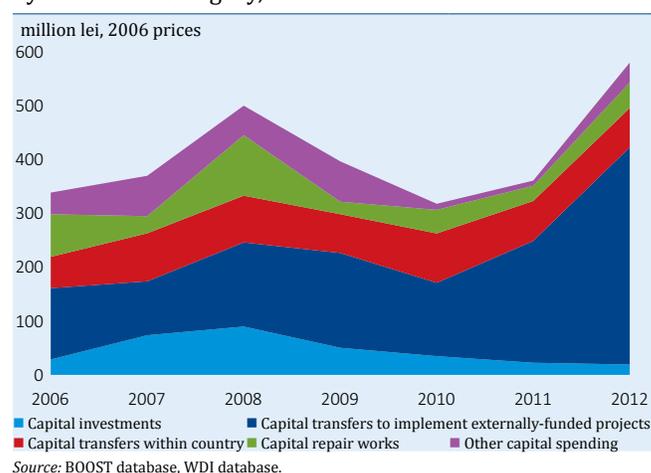
Capital spending in the health sector contracted during the 2008–2009 crisis. In 2012, it stood at 0.4 percent of GDP, down from 0.8 percent of GDP in 2008. Domestically-funded investments declined rapidly while spending on externally-funded projects rose (Figures 4.18 and 4.19).

Figure 4.18: Health Capital Spending, 2006–2012



Source: BOOST database, WDI database.

Figure 4.19: Distribution of Health Capital Expenditures by Economic Category, 2006–2012



Source: BOOST database, WDI database.

In recent years, domestic and externally-funded⁷² investments have been fragmented. Capital spending has focused on small repairs, rather than investments in new, more efficient hospitals and laboratories covering larger populations and consolidating services. These expenditures included minor (re)construction or re-equipment of several hospitals, as well as some investments in polyclinics and emergency services, but mostly consisted of refurbishments of primary care centers, family doctor offices and other out-patient rural facilities.

Strategic Context

National strategies emphasize modernization and investment in infrastructure, along with a rationalization of the hospital network. Priorities identified in the National Health Policy for 2007–2021 and the Health System Development Strategy for 2008–2017 include: (i) modernizing primary healthcare infrastructure and equipment; (ii) streamlining hospital infrastructure; (iii) investing in republican hospitals identified as centers of excellence; and (iv) building ICT capacity for health. Current Government plans call for the creation of zonal hospitals to replace the current network of 34 district hospitals, plus the creation of two regional centers (specialized hospitals in Cahul and Balti). For the Chisinau municipality, three types of hospital are envisaged: municipal hospitals responsible for the treatment of the general population of the capital; centers of excellence in the form of tertiary mono-profile hospitals; and university hospitals, which would offer the most complex types of service and medical education.

Large investments are necessary to implement the plan, but sources of funding have not been identified. The total additional investment has been estimated at 1,112 million Euros over 2009–2018 (273 million in 2010–2011, 364 million in 2012–2013, 294 in 2014–2016 and 181 million in 2017–2018), which is much higher than current spending levels.

With scant domestic resources, external funding has dominated capital spending in the sector and progress has been mainly in the primary care system. Local authorities (which have ownership of the facilities but no explicit mandate related to the state of the infrastructure) make modest contributions in investment in the facilities they own. Since 2010, a small portion of Mandatory Health Insurance Fund spending (2.8 percent in 2012) has been dedicated to capital spending, but this can contribute only marginally to health infrastructure rehabilitation needs. Externally-funded projects have focused on investments in primary care, particularly in rural health centers.⁷³ By contrast, there have been limited externally-funded investments (and little improvement) in secondary and tertiary care provision.

72 The largest externally-funded projects were World Bank, EU and European Council-funded projects, namely the Prevention and Control of HIV/AIDS and Sexually-transmitted Infections and TB program, the Health Services and Social Assistance project, the Blood Safety in the Republic of Moldova project and the Refurbishment of the National Clinical Hospital project.

73 As an example, 36 health centers and family doctor offices have been renovated since the start of the World Bank project on “Health and Social Assistance Services”; 38 more are due to be renovated in 2011–2013. The project will also contribute to investment in the republican clinical hospital.

Key Issues

There are two major sets of issues with respect to capital spending towards improving health care services in Moldova: spending efficiency and equity (particularly geographic) in access to health care.

Improving the current state of health care facilities and updating obsolete equipment require investment, especially in rural areas. Access to quality care remains skewed in favor of the urban population. A significant number of primary care centers, especially in rural areas, still lack standard medical equipment and 20 percent of the medical equipment in district facilities is in disrepair. The level of equipment obsolescence ranges from 60 percent in republican institutions to 80 percent in district-level institutions, and the average age of a typical health facility is 45 years.⁷⁴ Addressing infrastructure deficiencies, together with other issues in the health sector (human resources and shortages of personnel in rural areas, public health care surveillance, disease control and prevention, and access to medicine) is needed to help improve health outcomes.⁷⁵

Rationalization of the hospital network will increase the efficiency of the health care system.

The series of reforms undertaken in the sector since the late 1990s have yet to fully address Moldova's legacy of extensive/excessive hospital infrastructure.⁷⁶ The total number of hospital beds (618 per 100,000 in 2011) is comparable to the EU average,⁷⁷ but bed occupancy rates in many hospitals remain low, which signals the need for further rationalization.⁷⁸ As past consolidation efforts focused on district hospitals, remaining excess capacity is concentrated in cities, particularly Chisinau where two-fifths of public hospitals are located.⁷⁹ The need for optimization is even more apparent in the case of acute hospitals, where numbers remain high compared to most countries of the region (Figure 4.20).

Figure 4.20: Number of Acute Hospital Beds per 100,000 (2010)



Source: WHO European Health for All database (HFA-DB).

Note: 2010 data for all countries.

Information technology, an important component of modernization and quality enhancement, is developing but remains fragmented. The number of computerized legal entities in health has increased from 120 in 2005

74 World Bank, IMF, United Nations, Moldova et al., 2009, "Moldova: Policy Notes for the Government", pp. 58–60.

75 Despite improvements, Moldovan health outcomes remain below EU averages, and are poorer than those of the EU-10. Average life expectancy in Moldova is 69 years (in 2010), which is 10 years below the EU average and five years below the EU-10 average. Although progress has been made (notably a decline in child and maternal mortality), the re-emergence of tuberculosis and the emergence of HIV/AIDS bring significant challenges.

76 Such reforms include the substantial decrease in medical staff and bed numbers operated in 1998, the 1999 decentralization of selected planning and funding mechanisms, the introduction of per-capita funding in 2001 and a mandatory health insurance system and increased hospital autonomy in 2004.

77 WHO European Health for All database (HFA-DB, 2012).

78 The Government of Moldova, 2007, "Health System Development Strategy for 2008–2017".

79 European Observatory on Health Systems and Policies, 2012, "Republic of Moldova Health System Review 2012" pp. 69–70.

to 272 in 2010, but information technology is fragmented and uncoordinated. Separate information systems are developed as part of programs funded by different donors both at the primary care and the hospital level.

Policy Options

To address equity issues and improve the efficiency of the health care system, particular attention should be given to strategic guidance, project appraisal and selection and monitoring and evaluation:

- Among the public investment management reform areas presented in Chapter 3, key areas in the health sector include strategic guidance (a health care sector delivery master plan with clear priorities) and the development of a project appraisal framework.
- Efficiency and equity in providing access to quality healthcare would be improved by rationalizing the hospital network, in accordance with the plans developed by the Government with support from donors and the World Bank. This would entail centralization of decisions related to capital investment for hospitals and major equipment. The objective is to create regional referral hospitals and to reprofile the hospitals from neighboring raions into long-term care facilities.
- To address the fragmentation and lack of coordination of information technology systems (an important component of modernization in the sector), integrated information systems should be put in place.
- PPPs could contribute to the large capital investments needed. To this end, it is essential to ensure transparency in selection and fairness of treatment of private investors vis-à-vis publicly-run facilities.

Appendices

Appendix 1: Moldova's classification of capital expenditure

Code 241 Capital investments

- Code 241.01 Capital investments in the construction of housing
- Code 241.02 Capital investments in the construction of production buildings
- Code 241.03 Capital investments in the construction of social/culture facilities
- Code 241.04 Capital investments in the construction of administrative buildings
- Code 241.05 Capital investments in the construction of utility facilities
- Code 241.06 Capital investments in the construction of gas main / pipes
- Code 241.07 Capital investments in the construction of other facilities
- Code 241.10 Capital investments in perennial plantations

Code 242 Purchase of fixed assets

Code 243 Capital repair works

- Code 243.01 Capital refurbishment of housing premises
- Code 243.02 Capital refurbishment of production facilities
- Code 243.03 Capital refurbishment of social/culture facilities
- Code 243.04 Capital refurbishment of administrative buildings
- Code 243.05 Capital refurbishment of transportation units
- Code 243.06 Capital refurbishment of other facilities

Code 251 Establishment of state reserves

Code 252 Establishment of state exchequer (treasury)

Code 261 Purchase of land

Code 271 Capital transfers within country

- Code 271.02 Transfers to state-owned companies
- Code 271.03 Transfers to financial facilities
- Code 271.05 Transfers to the roads service
- Code 271.06 Capital transfers to support agriculture unattributable to any other items
- Code 271.07 Capital transfers for topographic/geodesy, mapping and cadastre works
- Code 271.08 Capital transfers for geological surveying
- Code 271.09 Capital transfers for typical planning
- Code 271.10 Capital transfers for land development
- Code 271.11 Capital transfers for erosion control and soil fertility recovery measures
- Code 271.12 Capital transfers to support wine-growing
- Code 271.13 Capital transfers to support fruit trees industry
- Code 271.14 Capital transfers for the land reform works
- Code 271.15 Other capital transfers within the country
- Code 271.16 Transfers to develop tobacco industry
- Code 271.17 Capital transfers for small-scale irrigation
- Code 271.18 Capital transfers to support animal husbandry
- Code 271.19 Capital transfers to purchase equipment and appliances

Code 273 Capital transfers to another-tier budgets and between the budget components

Code 281 Other capital spending

Code 291 Capital transfers to implement the externally-funded projects

- Code 291.01 Share of Government and public authorities
- Code 291.02 Share of external grants
- Code 291.03 Share of external loans

Source: Ministry of Finance Order No. 91 of the 20th of October 2008 on Budget Classification.

Appendix 2: The Moldova BOOST module for capital expenditure analysis

The analyses of technical and allocative efficiency in this report used data from an integrated database of capital expenditure by objects,⁸⁰ the Moldova BOOST capital expenditure module. This appendix discusses data quality and suggests possible improvements in monitoring.

BOOST is a database of disaggregated expenditures at the lowest level available within the country's treasury system. It follows the national fiscal reporting methodology and includes information on the approved, revised and actual budgets broken down by government level (central, local, other); administrative unit (typically ministry, department, agency, hospital or school); sub-national spending units (such as districts, municipalities, towns and villages); economic classification (wages, goods and services, capital expenses, etc.); functional classification (sector and sub-sector); and financing source (base component/general budget revenues, special funds such as the Ecology Fund, special means/own revenues, and external funds).

The capital expenditure BOOST module extends BOOST data on capital expenditures to the detailed object level and supplements it with performance data. The module was created using:

- Detailed treasury data on national public approved, adjusted and executed budgets covering years 2006–2011, provided by the Ministry of Finance; and
- Object-level monitoring data (start dates and estimated cost at inception of the investment and repair components of objects) from the Ministry of Finance's Capital Investment Division (see screenshot below).

Data description and quality assessment

More than 90 percent of total executed capital expenditure is included in the Capital Investment Division's financial monitoring of spending by objects. This corresponds to roughly 30 percent of objects, with virtually full coverage at central level. Local level coverage is more uneven and is about a third of overall investment and repair spending. It is highest for the healthcare (79 percent), fuel and energy (69 percent), education (55 percent), and utilities (34 percent) sectors.

The Ministry of Finance only monitors investment and capital repair spending, and indicators do not include expected completion dates.⁸¹ For each object with investment and capital repair components, the Capital Investment Division records the inception year; the estimated cost at inception; total approved, adjusted and executed spending since

80 In Moldova, public expenditure is understood in terms of discreet 'objects' (unlike the more restrictive notion of project in international practice). A project is a planned set of interrelated tasks to be executed over a fixed period and within certain cost (and other) limitations. An object is any item for which a cost is compiled. It can be a product (e.g. "9754 Bust of Emil Loteanu in the park of cinema 'Patria', Municipality of Chisinau"), a service, a project (e.g. "9248 Project 'Regional development and social protection in the Republic of Moldova'"), or an activity (e.g. "9814 Construction of primary school-kindergarten in commune Cotul Morii, district of Hincesti").

81 Objects typically span several economic and functional categories. See Appendix 1 for more details on the economic classification of the capital budget.

Row Labels	2006	2007	2008	2009
01 General purpose state services	210,468,713	290,748,952	232,554,073	255,111,111
02 Foreign relations	19,700,612	58,594,497	49,895,085	5,111,111
03 National defense	29,219,524	29,363,139	148,439,980	4,111,111
04 Justice	31,481,498	39,619,579	45,719,627	31,111,111
05 Enforcement of public order and national security	72,906,171	85,177,897	149,162,397	47,111,111
06 Education	545,038,118	526,122,223	725,245,126	408,111,111
241 Capital investments	241,688,001	176,042,227	296,605,240	134,111,111
242 Purchase of fixed assets	74,360,223	93,064,145	90,623,493	39,111,111
243 Capital repair works	195,616,539	207,999,578	272,734,039	187,111,111
261 Purchase of land	1,750	162,761	40,872	1,111,111
271 Capital transfers within country	2,865,205	4,931,612	5,002,483	1,111,111
291 Capital transfers to implement the externally-funded projects	30,506,400	41,921,900	57,237,000	46,111,111
07 Research and innovations	36,198,306	81,978,512	110,820,339	76,111,111
241 Capital investments	15,799,222	38,147,098	53,344,472	30,111,111
242 Purchase of fixed assets	11,241,143	27,314,030	34,984,238	15,111,111
243 Capital repair works	9,157,941	16,517,384	22,491,630	6,111,111
271 Capital transfers within country				24,111,111
291 Capital transfers to implement the externally-funded projects	1,885,000	3,297,800	5,387,374	4,111,111
08 Culture, arts, sports and youth activities	203,470,966	179,792,286	160,710,074	101,111,111
241 Capital investments	117,518,672	63,906,256	65,588,622	21,111,111
242 Purchase of fixed assets	16,512,151	53,520,440	33,502,836	26,111,111
243 Capital repair works	45,208,055	37,481,767	51,198,346	45,111,111
271 Capital transfers within country	22,347,088	21,586,022	5,032,895	2,111,111
291 Capital transfers to implement the externally-funded projects	1,885,000	3,297,800	5,387,374	4,111,111
09 Healthcare	338,019,862	329,240,363	394,358,069	313,111,111
241 Capital investments	28,350,697	63,450,614	70,775,961	39,111,111
242 Purchase of fixed assets	40,123,202	66,702,014	43,116,489	59,111,111
243 Capital repair works	79,014,410	28,375,824	88,707,516	18,111,111
271 Capital transfers within country	58,073,588	79,400,838	68,460,523	56,111,111
291 Capital transfers to implement the externally-funded projects	132,257,964	89,311,073	123,297,580	139,111,111
10 Social care and social insurance	65,391,750	80,930,680	47,699,026	17,111,111
241 Capital investments	9,199,611	12,614,888	20,422,467	6,111,111
242 Purchase of fixed assets	7,732,886	8,197,313	5,588,857	3,111,111
243 Capital repair works	14,420,238	13,036,440	13,277,440	4,111,111
271 Capital transfers within country	28,000	3,165,601	2,138,817	1,111,111
291 Capital transfers to implement the externally-funded projects	34,011,017	43,916,439	3,271,445	2,111,111
11 Agriculture, forestry, fishery and water service	305,595,314	455,332,349	566,176,047	429,111,111

2006, including current budget plan; but not the expected completion year. At the central level, only the investment component of objects is officially monitored. At the local level both spending on investment and spending on capital repairs coded into objects are monitored. In practice, this means, for instance, that the estimated cost at inception as recorded by the Capital Investment Division is the estimated cost of investment or repair spending for one particular object as opposed to total estimated spending on the object.

The absence of a completion date makes it difficult to accurately compute values for commonly used indicators of technical efficiency such as the financial rate of object completion and verify implementation delays and cost-overruns. To calculate the financial rate of object completion (the annual public investment budget divided by estimated cost to complete the current investment 'program'), one would need to estimate the cost of the current portfolio. For the purpose of the analysis, objects have been considered active as long as spending is executed. Uncompleted objects may however have stalled and therefore no longer appear in the Capital Investment Divisions monitoring files.

The economic classification of objects in Treasury files is not always consistent with the Capital Investment Division's classification, particularly for local public authority objects. Local spending on objects identified as spending on capital repairs in the Treasury data is sometimes recorded as investment spending in the Investment Division's monitoring files. These objects have been excluded from the analysis. Those inconsistencies should be addressed.

Suggestions for improving data quality and monitoring

For better investment management, monitoring should be more responsive and dynamic, and, at a minimum, include the estimated completion dates of objects. The financial monitoring system should enable the Capital Investment Division to track changes in the disbursement profile of objects, total estimated costs and estimated completion dates compared to plan. This would facilitate efforts to identify ‘problem objects’ and help identify projects that should be adjusted or stopped. It would also enable more detailed and accurate efficiency analysis.

Non-financial dimensions of progress should also be monitored. This would, for instance, allow for comparison of physical and financial rates of completion, and help ensure that costs are not contained at the expense of quality, or that achievements can be measured against initial objectives.

Appendix 3: Summary Assessment of Moldova’s Public Investment Management System

The assessment of the performance of Moldova’s public investment management system in Chapter 3 follows a diagnostic framework⁸² that rests on eight key features of an effective system. Table A1 below summarizes these key critical features and the findings of the public investment management diagnostic, comparing the situation in Moldova against the institutional benchmarks in the diagnostic framework. A score on a five-point scale is suggested against each benchmark (see Table A2). These scores are also color coded from red to green, red indicating dimensions where Moldova is farthest from good practice. Taking the arithmetic mean of the scores under each of the eight ‘must-have’ features of a functioning PFM system allows a general overview of Moldova’s public investment management system to be obtained.

‘Front-end’ processes—preliminary screening, project appraisal and independent review—are weak in Moldova, as is the capacity to adjust to changes in project circumstances. Ex-post assessment is the weakest element in Moldova’s public investment management system.

Table A1. Public Investment Management Diagnostic Framework and Summary Findings for Moldova

Key Features of an Effective Public Investment Management System	Average Score
<i>Strategic guidance, project concept development and preliminary screening</i> Broad strategic guidance to guide sector-level decision-makers and preliminary screening to ensure project concepts meet minimum criteria of consistency with government’s strategic objectives and with the economic classification.	
<i>A formal project appraisal process</i> A regulated set of project preparation steps, such as pre-feasibility study and feasibility study, including preliminary design, and environmental and social impact assessments, that must be completed before a project can be approved as eligible for funding; and methods appropriate to technical capacities and to the scale and scope of a project.	
<i>Independent review of appraisal</i> A review by the finance ministry, a planning ministry or an independent agency is an important way of countering optimism bias - over-estimation of demand and under-estimation of costs - amongst those developing project proposals.	
<i>Project selection through a well-managed budget process</i> Linking the process of appraising and selecting public investment projects to the budget cycle in an appropriate way even though the project evaluation cycle may follow a different timetable. Involves verification of project eligibility and priority, and close scrutiny of forward costs and their funding during budgeting.	
<i>Efficient project implementation</i> Scrutiny for implementation realism, including organizational arrangements, procurement planning and timetable; adequate monitoring systems; and systems for managing total project costs.	
<i>Ability to make project adjustments</i> Flexibility to allow changes in the disbursement profile – including stopping non-performing projects - to take account of changes in project circumstances identified through responsive monitoring.	
<i>Provision for sustainable operation of facilities</i> Processes to ensure that a new facility is ready for operation and that the intended services can be delivered on a sustainable basis. Requires effective handover of management responsibility for operation and maintenance, and upkeep of robust and up-to-date capital asset registers.	
<i>Basic completion review and ex post evaluation</i> A systematic review of all projects upon completion to assess whether a project was delivered as specified, on time and according to budget. Introduction of a more sophisticated ex post evaluation to assess the project’s outputs and outcomes against objectives established in the design should follow.	

82 See “A Diagnostic Framework for Assessing Public Investment Management”, World Bank Policy Research Working Paper No. 5397, 2010

Table A2: Summary Assessment of Moldova's Public Investment Management System

Stage	Indicators and Dimensions	Findings	Rating
1. Guidance and preliminary screening	National development strategy; sector strategies	Credible investment strategies exist in important infrastructure sectors, but their influence on actual investment proposals seems to be muted. Investment planning remains largely ad hoc and is not yet based on systematic recording of asset condition within dynamic asset management systems.	3
	First-level screening to ensure strategic alignment	There is no formal project concept development and preliminary screening process.	1
2. Formal project appraisal	Clarity of roles in project planning process	Project planning is decentralized to line ministries and spending agencies. Roles are clear with respect to technical/engineering dimensions of project development (where the Ministry of Regional Development and Construction and Construction Inspectorate have well defined roles), but less clear when it comes to planning for value for money and sustainability. Public investment management procedures are not formalized and the role of MoF in project appraisal process is not properly codified.	2
	Formal technical guidance	There is no formal technical guidance on planning and appraisal methods applying to the whole of government. More systematic guidance exists for some funds, e.g., Regional Development.	1
	Sound project appraisal	A large share of capital expenditure is IFI/donor-funded and is subject to rigorous appraisal. Projects relying on domestic budget funding alone are not subject to systematic appraisal.	3
	Proportionality of appraisal	No formal proportionality. By default appraisal is proportional—because donor-funded projects are higher value—but this is not a procedural requirement.	2
	Effective coordination and scrutiny of donor-funded projects	Donor coordination seems effective. Donor-funded projects are generally aligned with Government priorities and subject to adequate scrutiny.	5
	Capacity in central agencies and line ministries	Capacities in project appraisal are weak throughout government. Lack of demand for good appraisal from decision-makers does not foster a good environment for strengthening.	1
3. Independent review of appraisal	Independent reality/quality checks	Except for engineering/ technical dimensions, there is no independent peer review to assess the objectivity of appraisal findings. Externally-financed projects are subject to internal scrutiny by the relevant IFI/donor, but are not independently reviewed by government	2
4. Project selection and budgeting	Fixed budget calendar with sufficient time for line ministries to prepare capital budgets	The budget calendar is fixed in law and gives adequate time for central government budget entities to prepare their capital budgets (20th April, when budget circular is issued, to 1st June). Budget preparation begins with a strategic phase leading to the issuance of ceilings by the Ministry of Finance (20th March). Adherence to the calendar has been poor in recent years, essentially for political and not technical reasons.	4
	Comprehensive guidance and capital spending ceilings	Guidance on preparing capital requests is included in the budget circular. Central government budget entities are issued with separate ceilings for capital and current expenditure.	5
	Projects developed before submission to MoF in budget	Domestically funded projects, particularly local public authority projects seeking state budget funding, are sometimes poorly prepared prior to submission, and serious preparation only begins once budget funding becomes more certain. Donor-financed projects are better developed.	3
	Integration of capital and current spending	Moldova's MTBF process favors integrated budgeting. This is reinforced by the introduction of a programmatic approach. Even so, expenditure on maintaining the existing capital stock is not always prioritized over new infrastructure spending and the operating and maintenance costs of completed projects are rarely taken into account explicitly during budgeting.	3
	Well-structured budget preparation to consider the multi-year nature of infrastructure projects	In theory, the design of Moldova's MTBF process should be supportive of multi-year budgeting for projects. In practice, ongoing projects seem to have to compete afresh each year for continuity of funding. Often new projects seem to be favored over ongoing projects and implementation delays appear common. Budgeting for foreign-financed projects runs more smoothly.	2

5. Project implementation	MoF checking of projects	There is adequate time in the budget calendar (20th June-25th August) for the Ministry of Finance to exercise an active gate-keeping role before the government submits its budget to Parliament. This it does as far as verifying technical aspects of projects and required approvals. However, it does not have the power to check projects 'parachuted' into the budget during parliamentary proceedings.	3	■
	Legislature has sufficient time to consider projects	By law Government submits its budget to Parliament by 1st October for approval before 5th December, leaving more than adequate time for parliamentary scrutiny. In both 2010 and 2011, the budget was submitted very late thus curtailing parliamentary consideration. The role of Parliament in micro-planning the budget is excessive.	3	■
	Legislature passes budget in timely manner	The budget was passed late in both 2010 and 2011, but late submission to Parliament appears to be the cause of delays, rather than parliamentary procedures.	4	■ ■
	Published guidelines	There are no published project implementation guidelines for the whole of government. Some special funds have guidelines.	2	■ ■
	Detailed implementation plan with clear accountabilities	Implementation planning is not systematic and is made difficult for multi-year projects by funding shortfalls. Likewise, it is difficult to assign and enforce accountabilities for project delivery when managers face unpredictable financing (at least for domestic projects).	2	■ ■
	Open competition for procurement	Open competition is the default option in the procurement law and is the most commonly used procurement method. Even so, room remains for more systematic use of open procurement. Legally defined domestic preferences are an impediment to obtaining the full benefits of international competition.	4	■ ■
	Effective procurement complaints mechanism	There is no independent complaints procedure. Complaints are handled in the Public Procurement Agency, which entails a potential conflict of interest, as the PPA is still heavily involved in approving contract awards.	1	■
	Commitment controls	Financial control is very strict in Moldova—probably too rigid. Existing commitment control systems work effectively, although falling short of a fully developed system. Management of multi-year contractual commitments through annual appropriations appears to pose some difficulties though.	4	■ ■
	Predictability of funding	Project managers can usually expect to receive their annual budget allocation, but in-year cash planning is imperfect and cash rationing is not uncommon leading to late payment of some invoices (and possibly higher costs overall).	3	■
	Regular progress reporting	Reporting on progress is limited to financial reporting. Financial reporting is limited to in-year disbursements, and changes in total estimated project cost and estimated completion date are not systematically reported.	3	■
	Active monitoring of progress	Monitoring is largely passive and not well differentiated from financial control and inspection functions. Systems for early recognition of problems and their solutions are not in place	2	■ ■
	6. Adjustment for changes in project circumstances	Sound internal control and internal audit	Internal financial control is effective. Internal audit exists in organizational terms but is still in its infancy in terms of the practice.	3
Formal project completion		Formal procedures exist for sign-off on project completion—certification of works and use-permits—and these are followed. These fall short of an assessment of implementation performance.	3	■
Constant project adjustments		Narrowly defined budget appropriations, tight virement rules and relatively inflexible financial controls mean that it is difficult to 'fine-tune' expenditure plans in-year. In practice, changes can only be implemented when supplementary budgets are voted.	2	■ ■
Explanation required for variances from budget and plan		There is no formal process for explaining variances in project disbursements compared to plan or budget.	1	■
Mechanisms for project adjustment		Projects tend to be tightly circumscribed and adjustment by project managers is not easy.	2	■ ■
Periodic review of costs compared to benefits for major projects		Except for externally-funded projects, total project costs for multi-year projects are not closely monitored. No cost-benefit analysis is done anyway for entirely domestically funded projects. There is no formal process for reviewing forecast project performance in the light of significantly increased costs or decreased benefits.	2	■ ■
Mechanism to stop project	There is no institutionalized mechanism for stopping poorly performing or irrelevant projects. In practice, there have been periodic sweeps of the project portfolio to identify and cancel stalled projects by decree. This leads to much delay in taking action.	3	■	

7. Facility operation	Effective handover of assets	There is an effective handover process	5	■
	Assets fit for purpose	Assets are verified as fit for purpose on handover and no concerns about the quality of contracted works were expressed.	5	■
	Asset registers	Asset registers and asset management systems are poorly developed.	2	■ ■
	Sufficient operations and maintenance funding	No evidence of shortages of funding for operating expenses. Underfunding of maintenance for existing and new assets remains an issue.	3	■
8. Ex-post assessment (evaluation)	Basic comparison of project costs, timelines, and deliverables against budgets and plans	No formal assessments of project implementation performance at the central level.	1	■
	Formal arrangements for project evaluation against plan and appraisal	No formal arrangements for ex-post evaluation. No dedicated evaluation units.	1	■
	Effectiveness or value-for-money audits	Court of Accounts has developed some capacity in performance auditing and has undertaken project audits. Likely to become increasingly important as capacities develop.	2	■ ■
	Proportionality of evaluation	No ex post evaluation, except as required by donors. Since donor projects tend to be larger there is some de facto proportionality	2	■ ■
	Response to evaluation findings	There are no arrangements in place to ensure evaluation findings and recommendations are acted upon	1	■

