The World Bank

Public Debt Management
Reform Plan

Moldova

September 2011

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ACRONYMS AND ABBREVIATIONS

CEB	Council of Europe Development Bank
DeMPA	Debt Management Performance Assessment
DO	Debt Office of the MoF
DSA	Debt Sustainability Analysis
EBRD	European Bank for Reconstruction and Development
ED	External Debt Division of the DO
EIB	European Investment Bank
ID	Internal Debt division of the DO
ME	Monitoring and Evaluation division of the DO
MoF	Ministry of Finance
MTEF	Medium Term Expenditure Framework
NBM	National Bank of Moldova
OL	On-lending division of the DO
T-bills	Treasury bills

EXECUTIVE SUMMARY

A World Bank mission comprising Lars Jessen and Cigdem Aslan (BDMDM), and Tihomir Stucka (PRMED), visited Chisinau, Moldova, May 25 - June 3, 2011. Iaroslav Baclajanschi (ECSP3, Chisinau office), provided valuable support to the team. The team wishes to thank the head of the Debt Office of the Ministry of Finance (MoF), Elena Matveeva, and her team for their hospitality and very active engagement both during the discussions of potential reforms and the training sessions.

The main objective of the mission was to draft with the Ministry of Finance team a reform plan for debt management. The basis for the reform plan was the Debt Management Performance Assessment (DeMPA) and Medium Term Debt Management Strategy (MTDS) missions in 2008 and 2009. Separate meetings were held with individual divisions within the Debt Office, Treasury, the National Bank of Moldova (NBM), and commercial banks.

Moldova is in transition from LIC to MIC status, and increasingly, the creditors are providing choices regarding financial terms. A debt management strategy covering 2011-2013 was prepared by the Debt Office, examined by the Administrative Council of the MoF and published in late 2010. Currently, an update is being produced in parallel with the update of the Medium Term Expenditure Framework (MTEF).

In general, the mission's view is that the debt management function in Moldova is working well, although the exposure to operational risks is high. While organized along product rather than functional lines, staff capacity is good, and the debt recording and reporting functions are working well. While there is no urgent need for reforms in the short term, the movement away from low-income status and a gradual development of the domestic market will increase the financial choices, and reforms would support a strengthening of institutions and capacity to prepare for this situation. Relatively small, gradually implemented interventions over the coming years would help in reducing operational risks, strengthen the processes around the development and annual update of the medium term debt management strategy, and support the development of a more effective and active secondary market for government securities.

The main areas of reforms identified are as follows:

- The law for debt management should include overall objectives, a requirement to produce and annually update the medium term debt management strategy, and to report on strategy implementation to Parliament and the Government;
- As creditors increasingly will provide financial choices, it is recommended to organize the Debt Office along functional lines. In addition, it is

recommended to increase the staffing of the Monitoring and Evaluation Division, that is responsible for strategy development and risk analysis, and currently comprises 1 staff only;

- It is recommended that the debt management strategy is published as a stand-alone document on the MoF website, and not integrated into the MTEF;
- In the 2008 DeMPA, management of operational risks was assessed as weak. It is recommended to gradually strengthen this area, with a special focus on ensuring staff continuity and back-up, and on documenting the rationale for the financial choices made;
- There is no in-house capacity in the MoF to undertake an independent debt sustainability analysis (DSA). It is recommended that a cross-departmental working group led by the Budget Department be established with the responsibility of developing an annual DSA, which would be an integral part of the MTEF.
- A challenge for debt management in Moldova is the short maturity of domestic debt, and the very shallow market for government securities. It was recommended that an action plan for market development be developed with the support of an external expert.

This report discusses potential reform plan issues in detail – discussing sound practices in specific areas, highlighting the current situation, and describing recommended actions. Most of the measures can be undertaken by the Debt Office alone with little or no external assistance. In some areas, however, such as market development and developing new regulations, it is recommended that external consultants are engaged to support the process. On the following pages, a table summarizes the recommendations and outlines a timeline for interventions. This draft reform plan report has been discussed with the Debt office.

MOLDOVA LONGFRAME

Issues/ Project Components	Actions	Timing	Expected Outputs of the Actions	Budget (for external assistance) [1]	Expected Outcomes of the Project Components
			Legal framework		
The debt management law does not include long-term objectives	Amend the law to include: 1. Debt management objectives 2. Requirement to develop and update strategy 3. Requirement to report to parliament and Government	Start in 2Q 2012, duration 12 months	A public debt management law closer in line with best practice	Internal	Stronger governance arrangements for debt management
The government has limited control over the borrowing of local governments which lack the capacity to manage their debt	Amend the law based on sound practices (if applicable) Develop regulations for the borrowing of local governments Establish working group tasked with developing a governance framework for sub-national borrowing	Start in 2Q 2012, duration 12 months	A clear framework regarding the borrowing of local governments	US $ 30,000 (for developing described regulation)	Better control with the borrowing of local governments
			Organization of effective debt management		
The organizational framework of the DO does not clearly reflect a functional division of responsibilities	Restructure the DO according to functions	Start 4Q 2012, duration 6 months	A DO organized along functional lines	Internal	
There is not sufficient staff in the section responsible for cost-risk analysis and strategy development (ME)	Hire or transfer from within the DO one additional staff to ME	Start 3Q 2011, duration 3 months	A stronger ME division, reduced key person risk	Internal	Stronger governance arrangements
There is no in-house	Shift one staff from	Start 4 Q	Legal	Internal	

[1] Note budget estimates are preliminary.

Issues/ Project Components	Actions	Timing	Expected Outputs of the Actions	Budget (for external assistance) [1]	Expected Outcomes of the Project Components
(DO) legal expertise available	the Legal Department of the MoF to the DO, or hire a young law graduate	2011, duration 3 months	expertise readily available		
The analytical capacity of the DO is relatively weak	Prepare annual training plans for staff based on skill requirements Train Staff Rotate staff within the divisions of DO	Start 4Q 2011, ongoing	Well trained staff of the DO, with a high degree of flexibility	US$ 100,000 (cost of training for 2-4 staff)	
Debt Management Strategy and Risk Management					
It is being considered to include the medium term debt management strategy in the MTEF document	Ensure that the debt management strategy remains a publicly available, stand-alone document, and update the strategy annually	Start 3Q 2011, duration 3 month	A stand-alone debt management strategy that is updated annually (ME)	Internal	Increased efficiency of debt management leading to lower cost and clearer cost-risk trade-offs
No guidelines or procedures are in place to support the borrowing decision (for example between domestic and external borrowing)	Develop a framework to assess external and domestic financing proposals	Start 1Q 2012, duration 6 months	Guidelines for domestic and external borrowing	US $ 30,000	
Reporting					
A range of regular monthly reports are being produced, however, these reports are mostly descriptive	Prepare monthly (1-2 pages) reports on cost and risk for MoF-internal consumptions	Start 4Q 2011, duration 3 months	Monthly reports targeted for the Minister of Finance (ME)	Internal	Increased accountability and transparency in debt management
The annual reports includes the description of the main risks affecting the central government debt	Improve annual reports by putting more focus on analysis of borrowing activities and debt	Start 1Q 2013, duration 3 months	Annual reports with a strong analytical	Internal	

Issues/ Project Components	Actions	Timing	Expected Outputs of the Actions	Budget (for external assistance) [1]	Expected Outcomes of the Project Components
portfolio, as well as the risk indicators used to quantify the risks, but with little reference to the debt management strategy	management strategy implementation		focus (ME)		
Operational Risk					
In general, procedures in the DO are not documented	Initiate internal project to identify and develop plans for managing operational risk	Start 3Q 2012, duration 12 months	A detailed plan for identifying and managing operational risk	US$ 50,000 (cost of 1 external expert for 8-10 days)	Reduced operational risk
There is substantial key-person risk related to ME	Introduce policies ensuring that there is back-up for all important functions in the DO	Start 1Q 2012, duration 3 months	Reduced key-person risk		
There is no dedicated function for risk monitoring and control	Introduce a separate risk monitoring and control function in the DO	Start 1Q 2013, duration 12 months	Improved monitoring of risks		
Debt Recording					
Separate debt recording systems are used for the different sub-portfolios	With a view to introducing a unified debt recording system, upgrade to version 6.0 of the DMFAS system	Start 4Q 2011, duration 6 months	Integrated debt recording system, including on-lending	US$ 250,000	High quality debt records that are easily available
Domestic Securities Market Development					
Turnover in the domestic market for government securities is very modest, and mostly government securities with short maturities are issued	Analyze the options for gradually extending maturities, DO to prepare action plan for government securities market development	Start 1 Q 2012, duration 3 months Start 2Q 2012, duration 12	Gradual improvement of secondary market turnover (DO, NBM etc)	US$ 100,000	More active market for government securities, reduced risk to the overall debt portfolio

Issues/ Project Components	Actions	Timing	Expected Outputs of the Actions	Budget (for external assistance) [1]	Expected Outcomes of the Project Components
		months			

BACKGROUND

Macroeconomic Context[2]

1. **Moldova is a lower middle income country, with an open economy heavily dependent on agriculture and workers' remittances**. The global financial crisis led to a sharp decline in gross domestic product (GDP) in 2009 amounting to 6 percent, and a corresponding widening of the fiscal deficit. This said, output growth rebounded quickly and is expected to be around 5 percent over the medium term.

2. **A rigid expenditure program and activated automatic stabilizers together with the collapse in imports and foreign investment that affected adversely government revenues, resulted in a widened fiscal deficit.** The primary deficit shifted temporarily from a small surplus in 2008 to a deficit of roughly 4.9 percent of GDP in 2009. Prudent fiscal policies under the IMF program[3] resulted in a primary deficit of below 2 percent in 2010 and are expected to lead to a balanced primary account by 2012.

3. **However, external imbalances remain a source of vulnerability.** Persistent trade deficits are only in part offset by foreign direct investment and remittances, leaving the foreign exchange reserves and the exchange rate vulnerable to external shocks[4].

Table 1. Macroeconomic indicators

	2008	2009	2010	2011 (E)
Gross Domestic Product (GDP) in current prices, mio. USD	6,054.8	5,737.7	5,810.4	6,999.4
GDP compared to the previous year, %	+7.8	-6.0	+6.9	5.0
Inflation rate (GDP Deflator), %	9.2	2.2	11.2	8.8
Average real interest rate on domestic market, %	5.4	15.7	-3.6	0.8
Average nominal interest rate on external debt, %	1.8	2.1	1.5	1.4
Real exchange rate depreciation, % (+ indicates depreciation)	7.3	10.8	-11.3	4.1
Revenues and grants,% of GDP	40.6	38.9	38.3	37.6
Primary Expenditures,% of GDP	40.4	43.8	40.0	38.7
Primary Deficit, % of GDP	-0.2	4.9	1.7	1.1

[2] Source: 2011 Draft World Bank-IMF Debt Sustainability Analysis report,A
[3] In 2010 Moldova signed a three-year arrangement with the IMF amounting to US$ 574 million under the Extended Credit Facility and Extended Fund Facility. The program aims to restore fiscal and external sustainability, preserve financial stability, and increase growth.
[4] Moldova has a floating exchange rate regime, which allows absorbing external shocks.

Central Government Debt[5]

4. **Moldova went through Paris Club restructuring in 2006 and subsequently cleared all external arrears**. Central government debt stock increased from 18.4 percent (MDL 11.6 billion) of GDP in 2008 to 26.3 percent (MDL 18.9 billion) in 2010. This increase was a result of both the larger fiscal deficit which led to higher borrowing needs and the depreciation of the lei which negatively affected the external debt stock.

Table 2: Evolution of the central government debt stock, percent of GDP

	2008	2009	2010
External Debt	12.9	15.8	18.9
Domestic Debt	5.6	8.5	7.4
Total	18.5	24.3	26.3

Source: 2010 Annual Report on public debt, state guarantees and on-lending, MoF

5. **Domestic debt increased from 5.6 percent of GDP in 2008 to 7.4 percent in 2010**. End 2010, it constituted 28.1 percent of the total central government debt. The majority of domestic debt consists of Treasury bills (T-bills) with 3-, 6- and 12- month maturities. There is a very small portion (1.5 percent) in variable rate 2 year bonds (see table 3).

Table 3: Composition of domestic debt issuances, percent

	2009	2010
21 day	14.8	6.9
91 day	28.5	30.1
182 day	31.5	38.7
364 day	10.0	14.7
2 year	0.3	1.5
1 year by subscription[6]	8.3	3.1
Total	100.0	100.0

Source: 2010 Annual Report on public debt, state guarantees and on-lending, MoF

6. **External debt constitutes 72 percent of total central government debt and represents 19 percent of GDP**. Most external debt is characterized by long-term

[5] 2010 Annual report on Public Debt, State Guarantees and On-lending from State Borrowings prepared by DO

[6] One-year bonds by subscription were designed and issued in 2009 as a new instrument to be used in "difficult times". Subscription consists of receiving requests from market participants over a period of time (not more than two days) to purchase bonds. Only local banks are allowed to participate.

multilateral concessional loans, implying relatively low cost on the overall debt. The main concessional lenders are IBRD/IDA and the IMF, whereas almost half of the bilateral debt corresponds to Russian credits (See table 4).

Table 4: Central government External Debt by Lenders

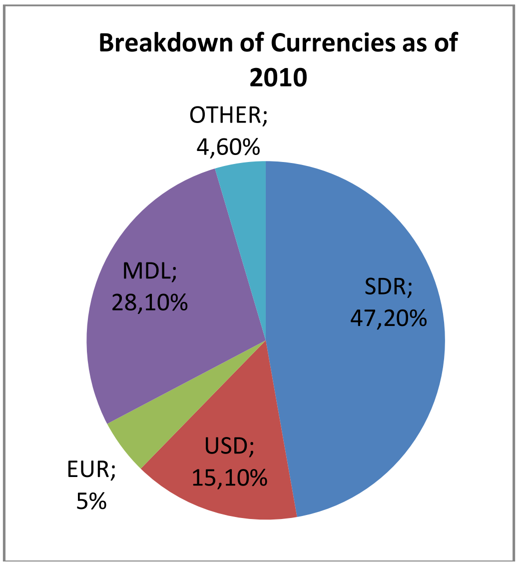
	2009		2010	
	USD mill.	Percent	USD mill.	Percent
Multilateral Creditors	**504.53**	**65.2**	**855.53**	**76.7**
IDA	330.92	65.6	386.37	45.2
IMF		0.0	304.49	35.6
IBRD	110.24	21.8	93.04	10.9
IFAD	37.18	7.4	42.31	4.9
CEB	12.91	2.6	12.34	1.4
EIB	11.78	2.3	16.49	1.9
EBRD	1.5	0.3	0.49	0.1
Bilateral Creditors	**255.85**	**33.1**	**250.57**	**22.4**
Paris Club:	167.25	65.4	155.23	62.0
Russian Government	121.3	47.4	109.09	43.5
German Government	18.8	7.3	17.39	6.9
US Government	14.82	5.8	14.82	5.9
Japanese Government	12.33	4.8	13.93	5.6
Non-Paris Club	88.6	34.6	95.33	38.0
CCC (USA)	39	15.2	36.42	14.5
KfW	19.87	7.8	16.6	6.6
Poland Government			15	6.0
JBIC	11.17	4.4	9.46	3.8
Romanian Government	9.4	3.7	9.4	3.8
Turkish Eximbank	7.94	3.1	7.14	2.9
Kuwaiti Fund	1.22	0.5	1.3	0.5
Commercial Creditors	**13.3**	**1.7**	**10.08**	**0.9**
AKA	13.3		10.08	
Total	**773.67**	**100.0**	**1 116.18**	**100.0**

Source: 2010 Annual Report on public debt, state guarantees and on-lending, MoF

7. **Only 28 percent of the total debt is denominated in lei.** Roughly half of central government debt is denominated in SDR. The USD share amounts to 35 percent after decomposing the SDR currency basket. Consequently, the large share of foreign

denominated debt exposes the central government debt portfolio to considerable currency risk.

Chart 1: Currency composition of total central government debt



Source: 2010 Annual Report on public debt, state guarantees and on-lending, MoF

8. **Interest rate exposure mainly originates from domestic debt, as all of it has its interest rate re-fixed within one year** (See Table 5). Risk indicators for external debt also show that more than a third is exposed to interest rate risk, primarily due to variable rate loans obtained from bilateral and multilateral sources.

Table 5: Risk indicators for the debt portfolio as of 2010

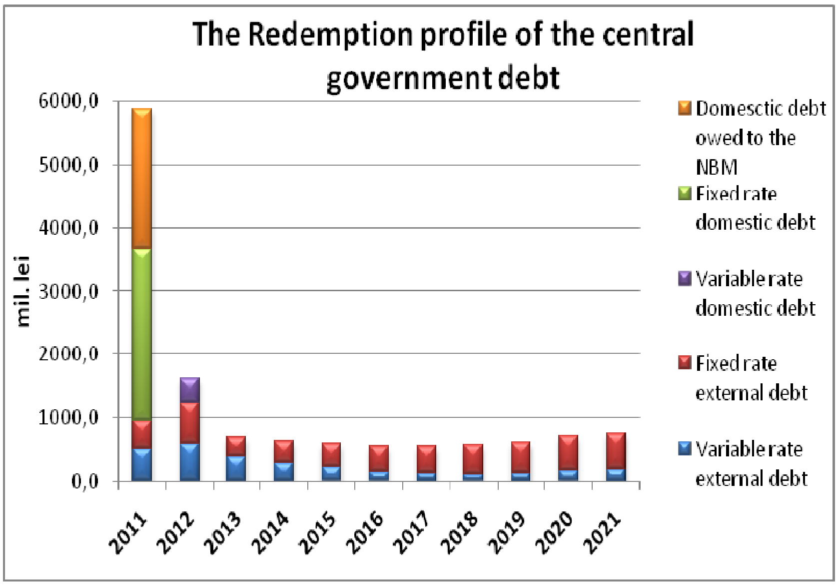
	Domestic	External	Total
Interest Rate risk			
Floating rate debt	5.9%	33.7%	25.9%
Share of debt to be re-fixed within one year	100.0	37.3%	54.9%
Average time to re-fixing (ATR), years	0.5	8.2	6.0
Refinancing risk			
Debt due within one year	98.2%	6.6%	32.4%
The average time to maturity (ATM), years	0.5	15.1	11.0

Source: 2010 Annual Report on public debt, state guarantees and on-lending, MoF

9. **A sizeable portion of central government debt is medium to long-term (68 percent) with the short-term debt mainly reflecting domestic securities**. The majority of domestic debt has to be rolled over within one year, which indicates high exposure to

refinancing risk. This is, however, somewhat counterbalanced by the much longer maturity of external debt, with an average time to maturity of 15 years. In sum, Moldova is primarily exposed to currency risk due to high share of external debt. Interest rate and refinancing risks are significant for domestic debt which however represents relatively small share of total debt.

Chart 2. Redemption profile as of end-December 2010, MDL million



Source: Medium Term Debt Management Strategy (2011-2013) http://www.mf.gov.md/en/TranspDeciz/ProiecDeciz/Strateg/

GOVERNANCE

The legal framework

Sound Practice

10. The primary legislation should include clear objectives for public debt management. This serves as an anchor for the debt management strategy development, and supports its implementation. Another key feature to include in the primary legislation is a requirement for the preparation and annual update of the debt management strategy. This highlights the importance of the strategy for sound public debt management in addition to assuring steady planning and monitoring of the government's debt portfolio. Additionally, reporting of the implementation results to the Parliament and the Government should be included in the law. This will help strengthen the governance structure and empower the debt management function.[7]

[7] Reporting to the Parliament will be analyzed in the "Reporting" section of the report.

11. The degree of involvement of the central government on sub national financing depends on the level and type of decentralization. In most countries, the legal framework regulates the borrowing of local governments and their subsidiaries in addition to imposing some limits on their financing. In these countries, the governments can regulate and manage, to an extent, the risks stemming from the contingent liabilities related to sub-national entities. In other countries, the legislation is very clear in separating the central government from liabilities incurred by the local government, and hence bail-out expectations are strongly discouraged[8].

Current Situation

12. **The Debt Office (DO) operates under the framework provided by the Law on Public Debt and State Guarantees and On-lending from State Borrowings (the Law) adopted in 2006**. The Law gives the MoF sole authority to borrow, issue sovereign guarantees and on-lend to public entities on behalf of the Government of Moldova, except for external borrowing and guarantees which are under the jurisdiction of the Parliament.

13. **The objectives of public debt management are not clearly stated in the Law.** However, an approved debt management strategy document for 2011-2013 includes an objective which refers to ensuring financing at a minimum cost and with optimal level of risk. Furthermore, there is mention of supporting the development of primary domestic bond market. In a situation where no objectives are specified by law, a second best solution is to state these in the strategy document.

14. **The preparation and periodic update of a medium term public debt management strategy is not required by law**. Although legislation requires the elaboration of the Annual Program of State Loans to be incorporated in the MTEF, this would correspond to an annual borrowing plan with a shorter span rather than a medium term debt management strategy.

15. **Although existing debt legislation entails provisions for local government debt, no governance procedures or guidelines exist with respect to borrowing**. Local governments in Moldova (especially the large ones) plan to borrow directly from the domestic and external markets going forward. Given the lack of adequate expertise these entities have requested capacity-building assistance from the DO for building capacity. This support will include developing a regulative framework which will guide municipal borrowing.

16. In the 2008 DeMPA, Moldova scored high on the legal framework for debt management yet the DO expressed its intention to amend the primary legislation in the above mentioned areas.

[8] See World Bank, (2011), Liu and Waibel, Laws for Fiscal Responsibility for Subnational Discipline

Issues and Recommendations

17. **Incorporating long-term objectives in the primary legislation would further strengthen the governance framework for public debt management**. The preparation and discussion at the meeting of Administrative Council of the MoF of the debt management strategy for 2011-2013 was an important step in the development of sound public debt management. Inclusion of debt management objectives in the Law would further enhance the importance of a strategy based on cost and risk preferences of the policy makers and in coordination with macroeconomic policies. In addition, this legal requirement would ensure a continuous focus on the medium term debt management strategy and its implementation.

18. **So far, the DO's involvement with local governments was limited to guarantees (currently not being issued) and on-lending "in-kind"[9], but future cooperation will also include capacity building.** Local governments, however, can borrow[10] independently and without guarantees in the domestic and external markets, a process which requires some level of expertise, technical capacity and planning. In this respect, as local government liabilities are a source of implicit contingent liability to the central government it is in the interest of the DO to help design a sound framework and minimize these risks. DO would share its knowledge on borrowing and risk analysis, and provide guidance on the processes and procedures to the municipalities.

Recommendations

In the short term[11]:

- Amend the law so as include (i) debt management objectives, (ii) a requirement to develop and publish public debt management strategies with yearly reviews and (iii) a requirement to report regularly to Parliament the implementation results of the debt management strategy DO will elaborate the proposals.
- Develop procedures for local government's borrowing. The DO can guide local governments on technical issues such as operational steps, procedures, and the design and implementation of a debt management strategy at local government level.
- Form a working group, which includes all stakeholders such as the National Commission of Financial Markets, MoF etc., to develop the governance

[9] The beneficiaries of "in-kind" on-lending are the state owned enterprises and local administrations. The MoF provides the equipment needs of these entities "in-kind". A contract is signed between the beneficiary and the DO, in which the repayment of the on-lent sources is established.
[10] Total local government borrowing cannot exceed 20 percent of their annual revenues.
[11] Short term denotes in this case roughly 6 months.

framework and regulatory environment for sub-national borrowing (e.g. the approving authority, rules, etc.)[12].

Organizational structure

Sound Practice

19. To achieve the overall debt management objective highlighted in the legal framework in an efficient way, the organizational structure should capture all core functions with well articulated mandates and roles for different tasks. An institutional setup based on the functions rather than products (external vs domestic debt) or lenders (multilaterals, bilateral etc) supports sound debt management better, and reduces operational risks (please see annex 1 for detailed information on the main functions and skills required in a public debt management office, including the legal unit). According to sound practices, one unit (middle office) within the debt management unit staffed with the appropriate skills such as capacity for financial analysis, knowledge of the markets and ability to effectively coordinate and communicate between different units, should be responsible for developing the debt management strategy. Usually this function is separate from the operational units in order to help promote the independence of risk analysis and monitor the implementation of the strategy.

20. In addition, the "front office" and "back office" functions should be split, with separate reporting lines. The settlement of transactions, typically the responsibility of the back office (debt recording, validation and servicing) should be segregated from the debt negotiation and issuance function (front office) to avoid the risk of errors, policy breaches, and fraudulent behavior. These operational risks can potentially lead to significant losses to the government that can tarnish the reputation of not only the debt management office, but also the whole government. To reduce these risks, stronger operational controls would need to be implemented and responsibilities for staff members better articulated. Another argument for separating the front and back-offices is the skills requirements for different functions. Allocating the technically best suited staff to the right job would be made easier by a functional organization.

Current Situation

21. **Currently, the DO is structured according to products and not core functions**. The External Debt division (ED), composed of five staff, is primarily responsible for external borrowing[13] and has both front and back office functions. ED's tasks include among others, recording of new debt, grants and disbursements in DMFAS, data validation and reconciliation, and initiation of debt service payments. Its front office

[12] The DO was informed of the Sub-national Fiscal and Debt Management Training which staff could attend.

[13] According to the 2010 Follow-up MTDS aide memoire, Moldova currently has no plans to tap the external markets.

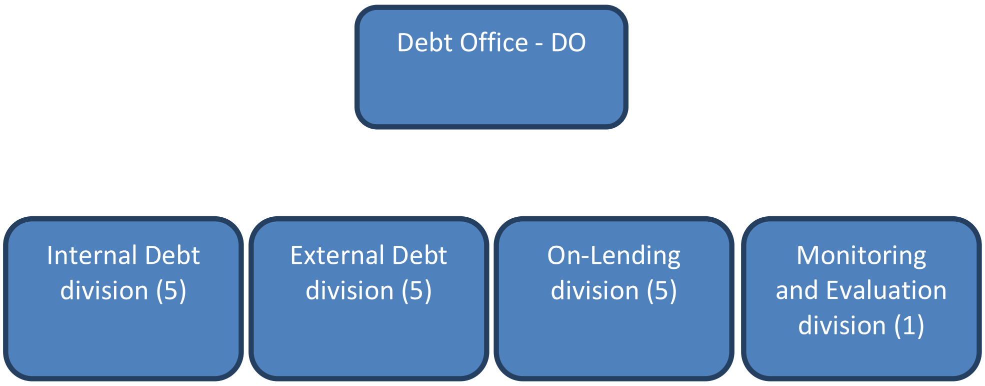
responsibilities include granting external debt guarantees, monitoring the outstanding stock, and calculating the grant element for external loans.

22. **The Internal Debt division (ID), composed of five staff, is responsible for domestic debt issuances and guarantees.** The ID produces the annual domestic borrowing program, coordinates with the NBM the quarterly auction calendar, and decides on the instruments and volumes. While the NBM acts as an agent of the government and operates the auctions of government securities, recording and servicing is conducted by DO, and critical decisions such as the cut-off price at auctions are made by the MoF.

23. **The On-lending division (OL), staffed with five persons, is in charge of on-lending "in-kind" to public entities, typically local governments and municipal enterprises.** Records of the on-lent resources are kept in an Oracle database. On-lending in-cash is undertaken by the Credit Line Department, which is a division within the MoF, but outside of the DO[14]. As there are many non-performing "in-kind" loans, which require legal interventions, this division often requires legal support.

24. **The Monitoring and Evaluation division of the DO (ME), which analyzes the debt portfolio and monitors the risk indicators, is currently staffed with only one person, with no backup staff.** Technical capacity and analytical skills of this person which benefitted from various training opportunities, is strong enough to perform her responsibilities. However, the understaffing creates key person risk because the strategy preparation is currently conducted in this unit, with the collaboration of ED and ID. The unit also monitors the implementation of the debt management strategy and prepares quarterly and yearly debt reports.

Chart 3. Organization of Debt Management within the MoF (numbers indicate current staff number)



[14] Details of the on-lending "in-cash" can be found in the 2008 DeMPA report. The Credit Line Department on-lends to public and private banks, which in turn provide loans to small and medium sized enterprises.

25. **There is no legal expert in the DO to provide advice on debt-related issues. Although a legal unit exist within the MoF, they do not provide detailed advice specific to the needs of the DO.** Legal guidance will be required when the DO embarks on drafting the primary and secondary legislation, for assessing loan documents with lenders, contracts with the beneficiaries of on-lending transactions, and, more importantly, when it requires an opinion on legal proceedings.

26. Moldova scores high on the managerial structure indicator in the DeMPA, which refers to the division of responsibilities between the political and managerial level. The issues highlighted in this section refer mostly to measures aimed at ensuring the sustainability of reforms through better staffing and HR policies.

Issues and Recommendations

27. **While the debt management operation in Moldova is functioning well, going forward, it will face a broader scope of financial choices related to external and internal borrowing, risking sub-optimal decision-making**. With the current organizational framework, there is a risk that the current product-based organizational structure will lead to sub-optimal debt management decisions, with little coordination of domestic and external transactions.

28. **The current organizational framework does not clearly reflect the division of responsibilities between different debt management functions.** In theory, domestic and external financing would be assigned to one unit, whereas recording and debt servicing of domestic and external loans would be assigned to separate units. However, ED and ID are responsible for both sides of debt transactions, namely issuance (front-office) and recording and settlement of debt (back-office), exposing the DO to operational risk (please see chart 4 below for a delineation of the debt recording arrangements). To separate these functions into “front” and “back” office would provide clear reporting lines and help manage the operational risk. It would also support specialization of the staff according to different functions rather than on the basis of the financing sources.

29. **Moldova’s debt stock is relatively low, with few transactions, thus, there is no great urgency in reorganizing the DO.** However, in the medium term, as the financing sources increase and Moldova becomes an IBRD/IDA blend country, the need to manage public debt more efficiently and to minimize operational risks could become a challenge. Therefore, the DO should keep in mind the suggested functional structure and steer gradually in that direction when making adjustments in the organizational structure. Also, in the medium term, it would be worth considering how on-lending in-kind could be integrated within the front/middle/back office structure of the DO. This is especially the case for issues related to recording of transactions and reporting which would allow a single debt database, and facilitate more timely and accurate reports.

30. **Considering that the development of the debt management strategy is essential for sound public debt management, the capacity of the ME should be strengthened both in terms of staffing and training.** Having this very important function staffed with only one person is too risky. This could be accomplished either through transferring personnel from another division of DO or hiring[15] a new individual. Transferring would provide a smooth transition and bring the know-how of other domains of the DO to ME. A new recruit could be an opportunity to hire a technically strong individual, increasingly valuable in the medium term. Therefore, increasing the staff number at the ME would foster an atmosphere for exchanging ideas and improving the quality of the work, in addition to reducing operational risk.

31. **The ability to attract and retain skilled debt management staff can be a major challenge for many debt offices, especially if there is an overall shortage of such skills.** Training programs and capacity building efforts may help reduce the extent of these problems. Thus, the DO should design a training schedule addressing different functions. For instance, front office staff should be trained in finance, financial markets know-how (money markets, debt markets), domestic and foreign investor behavior, financial infrastructure and general macroeconomic notions; middle office should receive training in quantification of risks and portfolio analysis in addition to financial modeling; and back office staff should have specialized knowledge of IT systems, basic finance and financial markets, basic accounting and payments systems. Specialized training could emerge as a motivating factor for the staff and increase the attractiveness of the DO. Moreover, to provide staff with the opportunity for a comprehensive view of the various debt management areas and, rotations on a regular basis within the DO, e.g. every two years could be contemplated, especially of new staff. Although rotation might seem to lead to loss of specialization benefits, this risk could be outweighed by the fact that it could help retain staff. In addition, such an initiative would help pin down the skills and abilities of various staff members leading to a more informed resource allocation. Finally, in small debt management offices like in Moldova, spreading the expertise and know-how across the units could be beneficial in reducing key person risk. Rotation could lead to positive spillovers as different skill sets and experiences mix, resulting in improved functioning of the DO.

32. **Debt managers should ensure they receive appropriate legal advice, and that all transactions are based on sound legal features.** In doing so, debt managers can help clarify the rights and obligations in the relevant jurisdiction. Over the medium term, as Moldova starts borrowing internationally in the markets, and as financial derivatives are introduced, access to in-house legal expertise becomes essential. In some countries, legal expert are based in the debt management office. Training young law graduates in public debt management jurisdiction could be a cost-effective way to address this issue. Another

[15] The person to be hired should have good analytical skills and a financial/economics background. Experience from the financial sector would be an added benefit.

possibility is for the DO to hire an adviser outside of the MoF to provide counsel on legal issues. However, such external assistance could be costly and may not be feasible for that reason. In any case, Moldova DO should have access to legal advice when needed, e.g. for on-lending operations, an area with a larger volume of legal contracts.

Recommendations

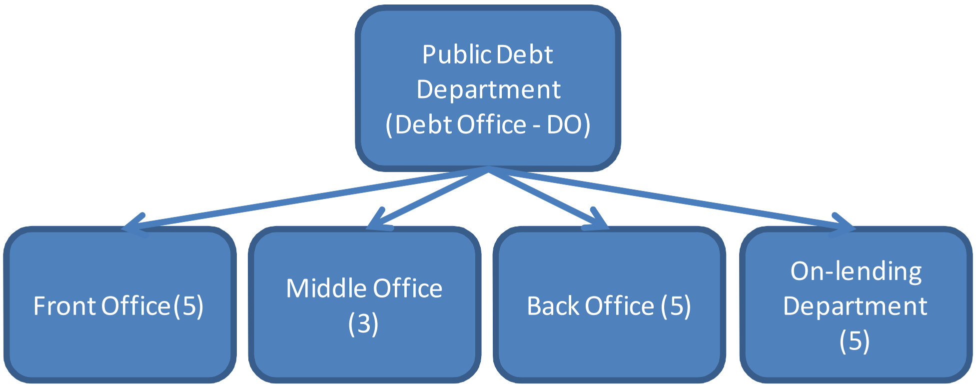
In the short term:

- Hire or transfer from within the DO one additional staff to ME, with a background in finance or economics, and eager to work on financial analysis. Consider adding a third staff.
- Transfer an individual from the general legal unit of the MoF to the DO or hire a young law graduate.

In the medium term[16]*:*

- Restructure the DO according to the core functions of debt management, namely front office, back office, and middle office.
- Prepare annual training plans based on skill requirements for specific positions.
- Introduce a scheme of rotating DO staff, especially the latest recruits, every two years to acquaint every staff member with at least two divisions.

Chart 4. Proposed Organization of Debt Management within the MoF[17]



Debt Management Strategy and Risk Management

Debt Management Strategy

Sound Practice

[16] The medium term in this case refers to 1-2 years.
[17] This chart, including staffing, was discussed with DO management, who was agreeable to the proposal.

33. A well-designed debt management strategy is based on the overall debt management objectives and set within the context of the government's fiscal and monetary policies. It explicitly takes into account a wide range of constraints, including the level of development of the domestic market for government securities. The strategy should include an extensive analysis of cost and risk of the public debt portfolio (currency, interest rate and refinancing risk). Furthermore, it should be forward looking, with descriptions of future fiscal and debt projections, assumptions on financial variables and constraints on the portfolio choices. The strategy should provide clear direction for borrowing choices, for instance, formulated as targets regarding the composition and risk exposure of public debt.

34. It is good practice for the debt management strategy to be formally approved by Cabinet or the Minister of Finance, and be a publicly available stand-alone document. This helps promote accountability and transparency, and enhances the debt managers' visibility. Many countries review the debt management strategy on an annual basis. This helps evaluate the results of the strategy implementation, facilitates updating the analysis with the latest revisions of the macroeconomic framework, and to fine-tune the financing targets based on cost/risk preferences and the overall debt management objectives.

Current Situation

35. **It is the mandate of the ME to draft a debt management strategy for the Government of Moldova**. The medium term debt management strategy covering the period of 2011-2013 was prepared and discussed in 2010. This document includes a comprehensive analysis of the current debt portfolio based on risk indicators and gives recommendations on the desired debt composition for the identified key risks. Although not required by law, the DO is committed to reviewing the debt management strategy on a regular (annual) basis. A revised strategy for the period 2012-2014 is expected to be finalized by June/July, 2011[18].

36. **In the current framework, it is unclear whether the debt management strategy will be a stand-alone document or part of the MTEF.** The Budget Department is advocating for annexing the strategy document to the MTEF.

37. **Capacity in producing detailed analytical work supporting debt management decisions is somewhat limited.** This is in part due to the key person risk at the ME discussed in the organizational structure section. Another constraint relates to restricting the majority of the strategy preparation to the perspective of one person (with input received from the other divisions).

38. **The DO currently decides on the external and domestic borrowing without a set of guidelines for choosing between different financing options.** Although Moldova

[18] The mission team also provided some training on debt strategy aspects to the DO staff.

is in transition between LIC and MIC status, its borrowing choices are still very constrained. ED or ID staff has to choose among alternatives to be submitted to Parliament for approval of external debt or to the Minister for domestic debt respectively. A systematic approach for analyzing and documenting these choices is needed.

39. Moldova scored low on the DeMPA indicator evaluating the debt management strategy. In 2008, the strategy did not contain a clearly specified risk and cost analysis of the debt portfolio.

Issues and Recommendations

40. **With the latest debt management strategy capturing all essential analytical factors (cost/risk analysis of existing debt, macroeconomic prospects etc.), the main deficiency is a stand-alone, published document**. If the DO embarks on preparing and periodically updating the debt management strategy as a stand-alone document, this would empower the DO and contribute to transparency and accountability of the DO and may even help reduce borrowing costs in the medium term due to increased transparency and predictability.

41. **To publish the strategy as part of the MTEF would subsume debt management with fiscal policy and, hence, risk confusing debt management with fiscal policy goals**. It is critical to make the distinction between these two concepts and treat debt management as a separate area related with the structure of the debt and risk exposure.

42. **If the key person risk in ME persists, this will hamper the integrity of the public debt management agenda of the government.** In addition, an additional staff would bring fresh perspective to the ME which is primarily led by one person, with possible value added to debt management strategy.

43. **It is important for the DO to be in a position to explain the different external and domestic borrowing decisions based on defined set of guidelines.** Currently, creditors like CEB and EIB and others are increasingly providing financing choices in terms of types of interest rates, currency denomination, and maturity. As a country approaching blend status, Moldova will increasingly be subject to an array of concessional and non-concessional borrowing alternatives, which will provide more flexibility for managing costs and risks. Therefore, the DO should work on a framework for analyzing the costs (e.g. all-in cost) and risks specific to financing proposals, evaluating their impact on the portfolio composition and debt management strategy. To this effect, separate templates for external and domestic borrowing could be developed for consistency and to facilitate decision making. These templates could contain information on the different borrowing choices, their terms and conditions, cost and risk comparison and analysis of the pros and cons. This approach would strengthen accountability and transparency of the DO, facilitate auditing and provide an equal

treatment of the proposals. It is essential for the background of each borrowing decision to be documented for consistency and accountability purposes.

Recommendations

In the short term:

- Once approved by Cabinet, publish the debt management strategy as a stand-alone document and make it easily available to the broad public. The strategy should be reviewed annually.

In the medium term:

- Develop a framework to assess external and domestic financing proposals. Separate external and domestic borrowing templates should be developed in order to presenting to decision makers the results of the comparison of the financial terms of alternative borrowing options. Procedures for documenting the financial decisions should be part of this framework.

Reporting

Sound practice

44. Important aspects of debt management operations should be publicly disclosed. Many debt managers prepare an annual debt management report, which reviews the previous year's activities, and provides a broad overview of borrowing plans for the current year based on the annual budget projections. Evaluating outcomes against stated objectives and ensuring compliance with the government's debt management strategy promotes transparency in debt management operations and good governance through greater accountability.

45. Reporting to the parliament increases transparency and strengthens accountability. Reporting requirements are commonly found in the debt management law. In the area of central government borrowing, the reporting requirement is augmented by the fact that the parliament delegates its borrowing power to the executive and, consequently, has a legitimate interest in knowing how the executive has used this power and whether the goals have been achieved—or at least that the strategy eventually will lead to this achievement.

Current situation

46. The Law requires (Article 9 (6)), that the "…Ministry includes in its periodic reports to the Government and to the Parliament on the execution of the State Budget, data describing the volume and status of Public Debt, State guarantees and on-lending

from State borrowings." In practice, these requirements are met through the publication of monthly statistical bulletins, and in quarterly report where more detail and description of activities can be found. The quarterly report for the last quarter of the year is an annual report that provides more detail, and some analysis of the risks to the portfolio.

47. All statutory requirements regarding reporting to creditors on central government debt are met, and were reflected with the highest score in the 2008 DeMPA report.

Issues and recommendations

48. **A range of reports are being produced regularly, and are available on the MoF website. However, these reports are mostly descriptive, and provide limited information and analysis of past actions and implications for the risk exposure of the debt**. The annual report contains limited risk analysis, which falls short of providing detailed information on the potential budget impact of changes in market rates, as well as a discussion of forward-looking initiatives, e.g. market development plans. In addition to providing information on outstanding debt and reporting to Parliament on the previous year's activities, the analysis could report on compliance with the strategy, and could help increase the focus on the debt management activities.

49. **Although monthly statistical reports are published, these reports do not provide information on risks, or any other type of analysis**. The DO could strengthen its reporting by developing short monthly reports (1-2 pages), with mostly graphical information on cost and risk, including risk indicators such as the share of debt falling due within the coming 12 months, average time to maturity etc. The report could initially focus on direct debt, but over time be expanded to include on-lending, local government debt etc. The main audience for this internal report would be the Minister of Finance, but could also include the management level in the MoF. The purpose would be to provide up-to-date and easily digestible information on the outstanding debt portfolio, with a focus on its risk exposure vis-à-vis the budget.

Recommendations

In the short term:

- Prepare brief (1-2 pages) monthly reports with a focus on the development of risks, for internal consumption. The reports should include information on outstanding debt, activities during the month, and track central risk indicators;
- Improve the annual report with a view to providing an analysis of borrowing activities, cost and risk, and compliance with the debt management strategy and forward-looking initiatives.

OPERATIONAL RISK

Sound practice

50. The risk of government losses from inadequate operational controls should be managed according to sound business practices, including well-articulated responsibilities for staff, and clear monitoring and control policies and reporting arrangements. This includes ensuring that strong controls and well-documented procedures exist for settlement of transactions, maintenance of the financial records, and access to the debt recording system, including controlling the access to the system through access permissions and password controls. All loan agreements and debt administration records must also be secure. Furthermore, as highlighted in previous sections, it is important to ensure that there is clear separation between staff with the authority to negotiate and transact on behalf of the central government (front-office staff) and those responsible for settlement of the transactions, including arranging payments, managing the bank account, and recording in the government accounting system (back-office staff). Strong operational controls and well-articulated responsibilities for staff members can reduce the risk of errors, policy breaches, and fraudulent behavior, which can potentially lead to significant losses to the government that can tarnish the reputation of not only the debt office, but the whole government.

Current situation

51. For issues related to debt recording, it was highlighted that there were no documented procedures for debt payments, data recording and validation, or for controlling access to the system(s). These issues are closely related to the fact that different systems are used for recording different types of debt. For instance, external debt is recorded in DMFAS, whereas on-lending "in kind" in a separate oracle based database. Recording of the domestic debt is carried out with in-house software, and the data are periodically migrated into DMFAS (see Figure 4 below). In general, data quality is rather high, and informal procedures for data control and validation are in place.

52. Closely related to the organization of the DO, see the section "Organizational structure", is the issue of segregation of duties for key functions. For example, while different staff participating in loan negotiations are different from the ones that enter the loan information in the debt recording system, this distinction is somewhat blurred, since the person validating data entries also participates in loan negotiations and prepares the recommendation for choice of financial terms. There is not specific and separate function in the DO for risk monitoring and control.

53. As previously mentioned, ME is responsible for developing and updating the medium term debt management strategy, and to preparing the quarterly and annual reports. Currently, the division consists of one staff.

54. Operational risk management was an area that indicated weaknesses in the 2008 DeMPA, and is an area in need of improvement.

Issues and recommendations

55. **When evaluating the operational risks, and specifically the fact that not all functions are covered by detailed and documented procedures, it should be taken into account that the procedures in practice appear to be working well, as demonstrated by the quality of the database**. Furthermore, before initiating large projects for developing procedures manuals, more clarity about the future organizational set-up is needed. **Having said that, there is an urgent need to provide more support and staff to the ME**. First of all to enable the DO to consistently provide high-quality cost-risk analysis but also from an operational risk management perspective to reduce key-person risk.

56. **There is no separate unit in DO responsible for risk monitoring and control**. Its primary function would be to monitor whether all government debt management operations are within the authorities and limits set by government policies and comply with statutory and contractual obligations. With additional staff, ME would seem to be the natural place to put this function.

Recommendations

In the short term:

- Add at least one additional staff to the ME;
- Ensure that there is at least one staff back-up for all core functions.

In the medium term:

- Introduce a separate risk monitoring and control function;
- Initiate an internal project to identify and develop plans[19] for managing operational risk, including preparing detailed procedures manuals.

DEBT RECORDING

Sound practice

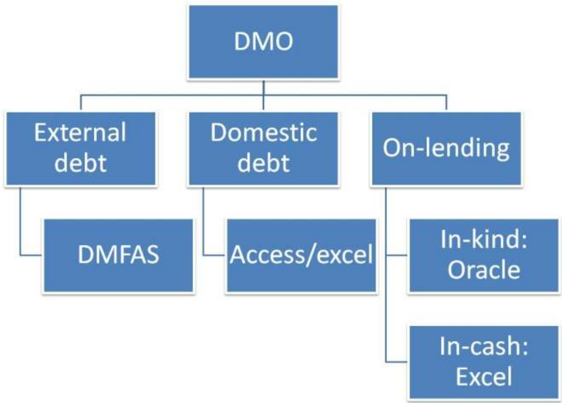
57. Debt management activities should be supported by an accurate and comprehensive management information system with proper safeguards. Countries should give a high priority to developing accurate debt recording and reporting systems. This is required not only for producing debt data and ensuring timely payment of debt service, but also for improving analysis as well as the quality of budgetary reporting and the transparency of government financial accounts. The management information system should capture all relevant cash flows, and should be fully integrated into the government's accounting system.

[19] This was discussed with DO by mission team.

Current situation

58. **The external and domestic debt, and on-lending are recorded by ED, ID, and the On-lending division respectively, and three different systems are currently used in the DO**: DMFAS for external debt and grants, Access for domestic debt, and Excel for on-lending in cash (Chart 5). The domestic debt is imported from Access to DMFAS, The Interface is functional and data are periodically migrated into DMFAS. For on-lending in-kind, that are handled outside the DO, an Oracle based system is used for recording.

Chart 5: Recording systems used in the DO



59. **The information in the debt recording systems are used as the basis for the monthly and quarterly reports, and, except for the uploading of the domestic debt, seems to be working well in the sense that there were no examples of disputes with creditors**. ME is responsible for collecting the debt information, and will liaise with the individual divisions if there is a need to double-check any data. For analysis (MTDS and DSA) ME will extract data on external and domestic debt from DMFAS.

Issues and recommendations

60. **The multiplicity of debt recording systems raises concerns of operational risk and transparency**. The operational risk refers to several aspects such as: Errors in entering data and transferring data to another system, inconsistencies of same data across systems, data verification procedures, etc. Transparency issues involve reporting that adequately aggregates different data in a meaningful way, for instance cash and in-kind on-lending analyzed from different aspects. While the 'in-cash' on-lending is organizationally separate from DO with its own budget and staff, reporting and analysis would be greatly facilitated if all recording of transactions were consolidated in one system. Using one comprehensive debt recording system would imply a need for organizational adjustments.

61. **Before making a decision on how to move forward in this area, the MoF should make sure that the system needs are thoroughly analyzed**. For example, one

approach would be to try to identify a system that can handle both debt recording and have analytical functions, another approach is to focus on the basic debt recording functions, and to do analysis of cost and risk outside of the system. The latter approach is widely applied in OECD countries. A second, and closely related, step is identifying available systems solutions[20], including the cost of purchase and maintenance. An important criterion for choosing a system is the availability of access-controls and audit trails.

Recommendations

In the short term:

- With a view to introducing a unified system for debt recording and reporting, analyze needs and availability of systems that can meet those needs. The options identified should include an upgrade of the existing debt recording system. It is recommended that an experienced consultant should be hired to develop a detailed proposal. Live systems demonstrations are part of the analysis.

In the medium term:

- Record directly both external and domestic debt in the debt recording system.
- Integrate all on-lending in the debt recording system;

DOMESTIC SECURITIES MARKET DEVELOPMENT

Sound practice

62. In order to minimize cost and risk over the medium to long run, debt managers should ensure that their policies and operations are consistent with the development of an efficient government securities market. By promoting the development of a deep and liquid market for its securities, debt managers, in tandem with central banks, supervisors and regulators of financial institutions, and market participants can achieve lower debt service costs over the medium to long term. In addition, the yields on government securities serve as a benchmark in pricing other financial assets, thereby serving as a catalyst for the development of liquid money and bond markets generally. This helps to buffer the effects of domestic and international shocks on the economy by providing borrowers with readily accessible domestic financing. This is especially valuable in times of global financial instability as witnessed through the global financial crisis. Governments should exercise particular care in borrowing in external markets.

Current situation

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[20] The universe of cost-effective systems for recording of public debt is currently quite limited. One option is to upgrade the current version.

63. **Domestic debt amounts to approximately 7.4 percent of GDP.** Of that, 60 percent is marketable debt, with the large majority being in T-Bills with maturities below one year. The remainder of domestic debt consists of 2-year bonds with variable interest rate. Securities are not re-opened, resulting in a portfolio with many individual issues, and hence small outstanding amounts, which is unsupportive of trading in secondary markets. The domestic marketable debt has increased sharply since 2009, but maturities have not been extended. Government securities are issued at auctions held by NBM, with the cut-off price at the multiple price auctions are decided by the Minister of Finance. A group of 12 Primary Dealers (12 out of 15 commercial banks are Primary Dealers) can participate in the auctions. The requirements, rights and obligations of the primary dealers are defined by an agreement between the NBM and primary dealers.

64. **The market for domestic securities is characterized by a very narrow investor base, and very little trading activity**. The commercial banks dominate the market, holding 98 percent of the outstanding securities, and are typically not trading the securities acquired in the primary market.

65. The market is characterized by structural excess liquidity due mainly to inflows of remittances, which is sterilized by the NBM through issuance of certificates with maturities of 7 and 14 days. In February the reserve requirements were increased from 8 to 11 percent, and starting in August the requirement will be further be increased to 14 percent. This will relieve some of the pressure on the short end of the market, and on the balance sheet of NBM.

Issues and recommendations

66. **Developing an effective secondary market for government securities in Moldova would have substantial benefits not only for the issuer, but for the economy in general**. Developing a market where the starting point is a limited investor base and a situation of structural excess liquidity is a complicated and long term endeavor. Regarding the investor base, it is unlikely that the government will be able to substantially lengthen maturities in the absence of a pension and insurance sector looking for long-term investments, and foreign investors. Also, a long-term solution to the issue of excess liquidity would have to be identified and implemented by NBM. It is important to note that an effort to develop the market should include not only DO, but also the market participants, NBM, the financial market regulator, and others. Perhaps more importantly, though, a precondition for market development would be economic and political stability – the market participants indicated the uncertainty about the future in combination with the short average maturity of time deposits as the main reasons for their currently limited appetite for longer term securities.

67. **The DO can support the development of a market by being transparent and predictable in their primary issuance**. Based on discussions with market participants

the DO is already fulfilling this requirement, but stronger commitment to issuing the quantities announced in the borrowing calendar would provide further support. Currently, the relatively short maturities and small volumes issued in individual securities is not helping to develop the market. Extending maturities and increasing volumes would be very difficult in the current environment, and it is very likely that an extension of maturities would result in higher cost in the short term. However, this higher cost would come with a higher protection against refinancing risk, and would be a first step in the direction of developing the market.

Recommendations

In the short term:

- Analyze the options of extending maturities,

In the medium term:

- With the assistance of an *external consultant*, prepare an action plan for government securities market development.

ANNEX 1. THE DEBT MANAGEMENT OFFICE – MAIN FUNCTIONS AND REQUIRED SKILLS

The functions and required skills of the three main divisions of a Debt Management Office (DMO) - namely, the Front, Middle and Back Offices- will be described in this note. In addition, there is a similar description for a Legal Unit of the DMO, which is sometimes included in one of the other offices.

FRONT OFFICE

The Front Office (FO) or portfolio management unit is responsible for the analysis and efficient execution of all portfolio transactions, consistent with the debt management policy and strategy. The degree of sophistication of its functions will largely depend on the types of funding available for that particular country. Typically there will be a learning curve as countries advance from official sources (concessional and non-concessional multi-lateral and bi-lateral) to more market-based funding, both domestic and international. The learning curve continues as the DMO starts using debt transactions such as exchanges and buy-backs, as well as hedging transactions including derivatives such as currency and interest rate swaps. The FO may also be involved in transactions of on-lending to sub-national governments and extending guarantees of various types to other government entities and/or the private sector. In some countries it may also be involved in executing cash management operations.

Typical front office functions

- Designing and executing funding transactions, both from domestic and international sources of funding. This may involve an analysis of competing financial proposals across different currencies, markets, maturities and transaction structures. Steps can include the evaluation, negotiation, pricing, launch of bond issues/contracting of loans, and subsequent market monitoring
- Designing and executing trading and hedging transactions, to move the actual debt portfolio closer to the strategic targets or benchmark (e.g. including debt buy-backs and exchanges, interest rate and currency swaps, etc.)
- Continuous monitoring and reporting of market conditions, including analysis of its potential investor base, both domestic and international
- Managing investor relations, possibly both domestic and international
- Investing foreign currency liquidity and any excess cash balances associated with the government's daily departmental cash management (in countries where the DMO is responsible for cash management)
- Analyzing projections of funding needs (in partnership with the middle office and Treasury/fiscal unit) and giving input on implications for a funding strategy
- Providing input on the design of a sovereign's funding strategy (together with middle office)
- Offering advice on government policy initiatives to foster the development of the primary and secondary government bond markets
- Offering advice on possible market reaction to new fiscal information

- Evaluating funding requests by SOEs and sub-nationals (relevant in some countries, and possibly in partnership with the middle office) which would result or not in an authorization from the DMO for their contracting new debt; or possibly in on-lending by the central government
- Evaluation of expected cost/pricing of contingent liabilities such as guarantees (e.g. by the central government to SOEs or sub-nationals) (in some countries and possibly in partnership with the middle office, sometimes the middle office takes the lead).

Front office skills required

The mix of skills will be important, and will differ according to the level of development of the country and the markets being sourced for funding and debt management transactions.

The degree of training required will depend on whether the new staff already has the required type and level of skills, or whether it is necessary to build up some or most of these modules:

- Advanced finance and financial markets know-how (money markets, debt markets, both international and domestic, primary and secondary, main players, etc.)
- Knowledge of non-market sources of funding, e.g. IFI's and their funding characteristics
- General macroeconomic notions
    - In particular, links of debt management with monetary policy, cash management and fiscal policy
- Knowledge of the role of a modern debt management office and within it, the functions and responsibilities of the three main divisions
- Public policy skills (e.g. to carefully manage relations with the markets in a suitable context, and understanding risk-taking in a public sector context).
- Strong communications skills (e.g. for managing investor relations, negotiations, etc.)

More precisely, knowledge of:
- Analysis, pricing and execution of :
    - funding transactions (domestic and international; capital markets, non-capital markets)
    - debt management related transactions, such as derivatives including currency and interest rate swaps, debt exchanges (e.g. by maturity,) buy-backs of illiquid bonds, etc.
    - guarantees extended by central government
- Conceptual framework for portfolio and risk management, the role of strategic targets and/or benchmarks in public debt management, and the role of the front office in complying with a benchmark

- Monitoring of, and reporting on, different financial markets and market participants, both domestic and international; (including knowledge of Reuters, Bloomberg, etc.)
- Relationship management with market intermediaries and investors
- Public finance and cash management and how to determine the government's funding needs;
- Domestic government money market and bond markets, so as to be able to provide advice on policy initiatives to foster the development of the primary and secondary government markets
- Investment of foreign currency liquidity and excess cash balances associated with daily cash management (in those countries where the DMO is also in charge of cash management).
- Pricing of guarantees and other contingent liabilities, and methodologies for evaluating expected cost (with middle office staff)
- For some offices, evaluation of funding requests by public entities such as SOEs and sub-nationals, so as to provide them with the corresponding authorization (with middle office staff)
- English language training, if transacting in the international markets
- Specialized IT training (related to pricing of transactions, market monitoring and reporting, practical knowledge of Bloomberg, Reuters, etc.)

MIDDLE OFFICE – ANALYSIS AND COMPLIANCE

The core competence of the Middle Office is the design of a public debt strategy, for final authorization of senior government authorities, which will involve risk/cost modeling and an analysis of macroeconomic and market constraints. Another important but more operational function is monitoring and compliance. In those countries where the DMO is also involved in cash management the MO will participate in proposing a strategy for managing the portfolio of cash surpluses.

Typical Middle Office Functions

Middle Office (MO) functions typically include:

- Risk modeling of the aggregate debt portfolio (initially deterministic scenario analysis and subsequently stochastic simulations)
- Analysis of potential constraints on debt portfolio management (macroeconomic, financial market, etc.) and their influence on debt strategy
- Debt strategy formulation and design of strategic targets and/or benchmarks
- In some DMOs, acting as Secretariat to a Debt Management Committee which advises the Finance Minister on debt management strategy, both on design and monitoring of execution.

Many MO's in debt offices also handle one or more of the following areas:

- Monitoring compliance with the established portfolio and risk management policies including regular reports monitoring market and credit risk
- Performance assessment (if there is active trading vis-à-vis the strategic targets,)

- Preparation of input to the state budget (reports on debt servicing forecasts, etc.)
- Operational risk control (together with back office)
- Producing reports on debt management for different parties (e.g. the Finance Minister, the Debt Management Committee, Congress, multilaterals), etc. and providing input on debt management to the corresponding website (working closely with the Back Office)
- New product development (together with front office)
- For some debt management offices in low income countries (LICs), knowledge of Debt Sustainability Analysis, in conjunction with other government units and the central bank (ideally this would be carried out by the Fiscal Policy Unit, not the DMO)
- For some DMOs, the MOF may be involved in analyzing cost risk trade-offs and designing a strategy for the management of cash surpluses.

Middle office skills required

The skills requirements listed below are needed to create a strong Middle Office function. The mix of skills will be very important for the success of a middle office, and will differ according to the level of development of the country, the ambition of the Ministry of Finance for the development of this area and the level of risk exposure of the government to different types of financial risk. In general terms there is a need for the following:

- Advanced technical skills in finance and risk analysis, in particular, risk quantification and portfolio management
- Financial market skills; given the impact from debt management on debt market development, an understanding of the workings of the local markets is also important
- Experience in managing the types of market, credit and operational risks associated with the Middle Office's responsibilities.
- Public policy skills – an understanding of the role of debt management within the context of the overall macroeconomic policies. Preferably some experience in public sector financial management and some macroeconomic knowledge for analyzing integration with the rest of the economy
- Strong mathematical and modeling skills
- IT skills are necessary for quantification of cost and risk of the government's debt; at a minimum, advanced knowledge in the use of spreadsheets, but ideally strong skills in different analytical software packages. For many countries, a practical knowledge of Bloomberg/Reuters is required.
- Strong communication skills – ability to translate analysis into material than can be the basis for the Minister's decisions on debt management

More specifically, good working knowledge of:

- Debt risk indicators and reporting on debt portfolio profile
- Risk modeling of debt servicing cash flows; scenario analysis, stochastic analysis

- Debt strategy design, and the influence of other considerations apart from cost/risk tradeoffs, on the debt management strategy (e.g. the need to develop the domestic money and debt markets)
- ALM framework for public debt management (and possibly cash management)
- How to monitor compliance with the established portfolio and risk management policies including regular reports monitoring market and credit risk
- Performance assessment (if there is active trading vis-à-vis the strategic targets)
- Preparation of input for the Government budget (reports on debt servicing forecasts, etc.)
- Operational risk control (together with back office)
- Producing reports on debt management for different parties (e.g. the Finance Minister, the Debt Management Committee, Congress, multilaterals), etc. and providing input on debt management to the corresponding website (working closely with the Back Office)
- New product development
- For some DMOs in LICs, knowledge of Debt Sustainability Analysis, in conjunction with other government units and the central bank (ideally this would be carried out by the Fiscal Policy Unit, not the DMO)
- For some DMOs, the MOF may be involved in analyzing cost risk trade-offs and designing a strategy for the management of cash surpluses.

THE BACK OFFICE

The core competence of the back office is operational, involving transaction confirmation, settlements, reconciliation and payments, as well as maintaining records of new contracts, disbursements, payments, debt restructuring and on-lending. In some countries the DMO may be requested to have a register of debt of sub-national entities.

Typical Back Office Functions

The typical responsibilities of the Back Office (BO) are:

- Confirmation of the transactions undertaken by the front office, i.e. independently verifying with the counterparty's back office that the terms of the transaction are as the front office stated;
- Settlement of the transactions once they have been confirmed, i.e. issuing/receiving payment instructions to/from counterparties;
- Reconciliation of bank and custody accounts to ensure that they agree with the organization's own records.

In addition, there are usually a number of administrative functions that are undertaken by the BO, including:

- debt registration and management of the debt data base (which may include not only the central government debt, but also debt of sub-nationals and SOEs, as well as guarantees of various sorts)

- administering loan documentation
- external reporting requirements (together with the middle office, but at a minimum providing basic statistics)
- operational risk management, including business continuity and disaster recovery arrangements, as well as documented guidelines for overall operational risk management
- managing the relationships with fiscal agents (e.g. the central bank)

Back Office Skills required

The BO handles very significant transactions and processing errors can be extremely expensive. Improved technology can help reduce the incidence of these, but few systems are failsafe. Therefore the BO requires professional staff with strong operational skills, including strong numeric skills, attention to detail, an ability to follow procedures and identify quickly when exceptions have occurred. More senior settlements staff will need negotiation skills, to manage exceptions with counterparties, and be able to stand up to front office staff, who typically enjoy a higher status in the organization.

The degree of training that will be required will depend on the extent to which the DMO can "buy" as opposed to "build" the skills it needs. To obtain the specialized knowledge listed above, the vendors of IT systems (e.g. DMFAS and COMSEC) and operators of payment and custody systems and exchanges usually provide training.

External training may also be possible in areas where the local private sector has similar requirements, e.g. the management of operational risk, training in market instruments for settlements staff.

In most DMOs, there is significant on-the-job training of back office staff in addition to external sources, because of the unique mix of instruments and IT systems that a sovereign borrower uses. Also, all organizations have developed procedures to manage operational risk which, while similar in principle, may differ in detail. For this reason, it is important that sufficient senior staff is retained to train new employees and ensure continuity of knowledge in the organization. This can be supplemented by cross-training and rotation through different positions.

In order to perform their role, BO staff requires specialized knowledge that will reflect the environment in which they work, including:

- Basic finance and financial markets
- Basic accounting
- Administration of loan documentation
- Strong IT skills
- the rules and conventions of the payment systems, custody systems and exchanges that they use (both in the local and international markets), as well as how to use any electronic interfaces with these entities;
- an understanding of the financial instruments in which their organization transacts;

- management of the IT systems the organization uses for transaction processing and debt recording (e.g. COMSEC, DMFAS etc).
- administrative procedures of the lenders and/or donors from which they borrow;
- other procedures and requirements of external organizations, e.g. for reporting purposes.

More specific public debt management skills required would include:
- Debt registration and database management in the particular IT system being used by that DMO
- Reporting and statistics required by third parties (e.g. IFI's) and by law
- Settlement and payment systems in use and for potential use
- Operational risk management for DMOs

LEGAL UNIT

Debt managers must ensure that they receive appropriate legal advice and that the transactions they undertake incorporate sound legal features. As such the legal unit, or the lawyers incorporated in one of the main units e.g. MO, have an important role to play.

Typical Debt Office Legal Functions

Typically, the legal staff/unit of the debt management office should:

- Actively contribute towards ensuring that the DMO's operations are conducted according to the law.
- Provide assistance in the form of legal research and advice, especially on new operations such as derivatives (e.g. swaps)
- Participate in the drafting of the regulations governing the activities of the DMO, and the primary and secondary markets of Government securities.
- Take an active part in negotiations on contracts, and ensure that the "legal' clauses do not excessively bind the borrower, that the borrower can fulfil its obligations without undue hardship, and that the contract at least is not stricter than the contracts entered into by other sovereign borrowers with similar credit status.

Debt Office Legal Skills required

The degree of sophistication of its skills requirements will largely depend on the types of funding available for that particular country. Typically there will be a specific set of legal skills required for countries obtaining funding from official sources (concessional and non-concessional multi-lateral and bi-lateral), and then a learning curve for legal skills related to more market-based funding, both domestic and international.

The legal skills learning curve continues as the DMO starts using debt transactions such as exchanges and buy-backs, as well as hedging transactions including derivatives such as currency and interest rate swaps. The FO may also be involved in transactions of on-lending to sub-national governments and extending guarantees of various types to other government entities and/or the private sector. In some countries it may also be involved in executing cash management operations.

As long as the DMO only borrows and enters into transactions in the domestic market, it is enough that the lawyers have solid knowledge of the domestic legal system, particularly financial and public law. Once the DMO transacts in foreign markets, broader skills and knowledge are required, as the foreign legal system will determine what the borrower legally can do. As most of the foreign capital markets have some form of consumer protection, the lawyer should be aware and check that the requirements for soliciting and offering securities to retail investors have been met.

Also, loan documentation becomes more complex once the borrower enters foreign markets. Here the sovereign must be prepared to follow the rules of the market. The banks/investors normally want the same protection as they have when lending to main corporate borrowers, i.e. representations and warranties, default clauses (sometimes even cross-defaults and cross-acceleration clauses), negative pledge, and a waiver of sovereign immunity. Apart from being capable in reading and understanding these loan contracts, the lawyer also must be a skilled negotiator. The legal unit normally is the only function within the DMO which keeps record on the contractual restrictions on the sovereign.

Once the borrower enters the international derivatives market, the legal issues become even more complicated. The standard agreement used, the ISDA agreement, is complex. The lawyers also must check if the contract is enforceable against the counterparty, which is governed by the counterparty's home jurisdiction. If some kind of credit support for the exposure is called for, foreign rules on pledges also need to be reviewed.

More specific needed skills include, but are not limited to, knowledge of:

- Public sector law, in particular, law for public sector indebtedness, on-lending, guarantees, etc.
- Securities law, both domestic and international
- Basic finance for lawyers, including financial markets and IFIs and official sources of funding
- Financial instruments, both domestic and international, and hedging instruments, and debt-related transactions and their contracts(e.g. debt exchanges and buy-backs, guarantees and on-lending contracts)
- Legal negotiation of funding and bond issuance contracts
- Drafting of regulations governing the DMO
- Basic international securities legislation
- Important clauses in international financial agreements
- Structure of the ISDA agreement and related legal issues in derivatives transactions

ANNEX 2. DEBT SUSTAINABILITY ANALYSIS

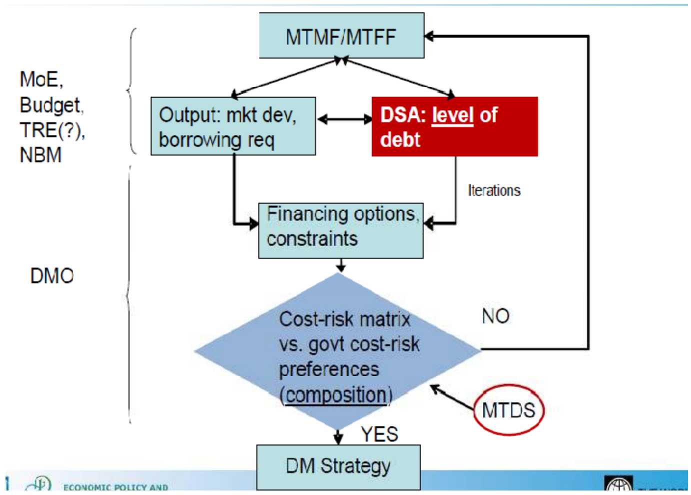
Sound practice

Debt managers should inform the government on a timely basis of any emerging debt sustainability problems, if this is not already addressed in other units. Although the responsibility for ensuring prudent debt levels lies with fiscal authorities, debt managers' analysis of the cost and risk of the debt portfolio may contain useful information for fiscal authorities' debt sustainability analysis (and vice versa). In addition, debt managers play an important role in setting the composition of debt through their borrowing activity in financial markets on behalf of the government. This places them in direct contact with market participants and their observation of investor behavior in both primary and secondary markets, as well as their discussions with market participants, may provide useful insights into the willingness of investors to hold that debt. This window on investors' views can be a useful input into fiscal authorities' assessments of debt sustainability, and may help policymakers identify any emerging debt sustainability concerns. Thus, debt managers should extract relevant indicators from their debt portfolio cost-risk analysis, and gather and analyze financial market participants' views on the sustainability of the government's debt in a systematic fashion. They should also have the appropriate communication channels in place so that they can share this information with fiscal authorities on a timely basis.

Current situation

There is no in-house capacity in the Ministry of Finance for undertaking a debt sustainability analysis. The only DSA undertaken was prepared by external consultants roughly five years ago for the purpose of the Paris Club debt restructuring. A DSA typically constitutes an integral part of budget preparation, see chart 6. Often, several iterations of different budget versions are conducted with feedback effects on macroeconomic assumptions as well as on debt burden trajectories. When the medium term primary deficit is determined together with the appropriate broad financing and macro assumptions, this will result in flows of new debt. Based on estimates of the size of new debt flows and an analysis of cost and risks embedded in the existing debt portfolio, a detailed distribution of external and domestic financing instruments for new debt flows is then produced by the DO.

Chart 6. The process of developing a debt management strategy



Currently, analysis of the budget impact on liquidity or solvency indicators is limited to forecasting the budget interest payments and analyzing the nominal central government debt-to-GDP ratio for the next three years. Also, changes in budget projections do not feed back into macroeconomic forecasts, which are undertaken jointly by the Ministry of Economy and NBM.

Issues and recommendations

Analytical considerations regarding the impact of the primary balance trajectory on debt burden indicators as well as sensitivity analysis of the underlying baseline scenario is vital for fiscal policy decisions. At roughly 25 percent of GDP, Moldova's central government debt level is relatively small and at concessional terms. This said, the recent financial crisis has emphasized the fragility of public finances causing a significant widening of the primary deficit and a depreciation of the exchange rate over a period of two years. Looking forward, Moldova's development needs are sizeable and future investments should be maximized while maintaining a sustainable debt level. Finally, the international environment remains volatile and Moldova's proximity to Europe poses certain risks in case of disorderly market-based defaults in some European countries and, thus, possible financial contagion.

Often the responsibility for preparing DSAs rests with the debt office. It is, however, important to keep in mind that the DSA is fundamentally a fiscal policy analysis rather than an analysis of the structure and risk exposure of public debt (MTDS). Therefore, the responsibility for conducting debt sustainability analysis would be better placed with the Budget Office rather than the Debt Office. This is not to say that determining the composition of debt does not have potential spillover effects on fiscal sustainability, but these can be considered to be of secondary order. It is therefore important that the DO not only provide input on borrowing and debt, but play an active role in the analysis.

Recommendations

In the short term:

- Establish a small working team consisting of five members. These members would be technical staff from the Budget Office, Treasury, DO, Ministry of Economy, and NBM[21]. The working group would be led by the Budget Office;

In the medium term:

- Prepare DSA's as needed, but at least annually, and integrate the DSA into the MTEF publication[22].

[21] The mission also provided a brief hands-on DSA training to an audience from the Budget Office, DO, MoE, and the Treasury.
[22] As discussed in the debt management strategy section, the medium term debt management strategy should be a self-standing document.