

Report No. 27599-TUN

Republic of Tunisia Strategy for Public Debt Management

January 2004

Social and Economic Development Group
Middle East and North Africa Region
The World Bank



Document of the World Bank

FISCAL YEAR 2004

July 1 – June 30

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Valuable support from the counterpart team in the Ministry of Finance in Tunisia is gratefully acknowledged. The team also benefited from discussions with the Central Bank of Tunisia, the Direction de la Prevision of the Ministry of Development and International Cooperation, the Securities Commission, the Direction of the Stock exchange, and a number of banks and “*Specialistes en Valeurs du Tresor*”.

The team benefited from comments by: Domenico Fanizza (IMF), Abdourahmane Sarr (IMF), and Dimitri Vittas.

PREFACE

Over the past two decades, the Government of Tunisia successfully controlled its debt burden, gradually decreasing it, despite the country's exposure to unfavorable external shocks. Tunisia successfully developed its access to international capital market, and is among the few emerging market borrowers that have investment grade rating. At the same time, a domestic market for government fixed-income instruments was launched, and the Government is gradually implementing a shift from exclusively external to domestic sources of funding.

To maintain these positive trends and consolidate Tunisia's position as one of the best-quality emerging market borrowers, the authorities plan to strengthen the public debt management strategy, with the aim of better managing risks while reducing the medium-term cost of the government debt portfolio. Introducing an action plan for active public debt management is part of the Government's strategy to maintain a stable macroeconomic framework, and is being supported by the *Third Economic Competitiveness Adjustment Loan* (ECAL III).

The need for an effective public debt management strategy has increased with Tunisia's stronger presence in the international financial markets and the larger exposure to changing borrowing conditions and exchange rate fluctuations. At the same time, there are better conditions today for public debt management, with the deepening of the secondary market for Tunisian debt instruments on the international bond market, while the public debt management strategy would be greatly strengthened by the steps taken to develop the domestic government securities market.

This study discusses options to the reform of the government public debt management practices, with the aim of increasing their efficiency, consolidating further the country's market access and containing the costs and risks of borrowing in both external and domestic markets. The study is intended to facilitate the introduction of an action plan for the implementation of the public debt management strategy, as part of the set of measures aiming at strengthening the macroeconomic framework in ECAL III.

Chapter One presents debt sustainability scenarios and discusses the underlying vulnerability factors. Chapter Two examines key principles of a strategy for public debt management, and presents a discussion of how active risk management can be progressively introduced in Tunisia. The analysis benchmarks Tunisia's debt situation against other emerging economies with comparable characteristics. Chapter Three addresses reform options to step up the development of domestic government securities market—a key component of the strategy. Finally, Chapter Four considers options in institutional reforms that would facilitate the implementation of the desired innovations in debt management strategy and operations.

REPUBLIC OF TUNISIA

STRATEGY FOR PUBLIC DEBT MANAGEMENT

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Executive Summary

Over the past two decades, the Government of Tunisia successfully controlled the public debt burden, gradually decreasing it, while pursuing a very prudent debt management policy. During this period, the share of private market borrowing in the government debt portfolio has grown substantially, while aid flows have stagnated and capital grants declined, reflecting the country's progress in development and higher levels of income per capita. Tunisia successfully developed its access to international capital market, and managed to avoid serious contagion from the emerging market crises. Tunisia is among the few emerging market borrowers that have investment grade rating. In the same period, Tunisia had launched a domestic market for government fixed-income instruments, and is gradually implementing a shift from exclusively external to domestic sources of funding.

Tunisia's financing program is anchored in the Five-Year Development Plan and is further detailed in annexes to its annual budgets. To secure fiscal sustainability, Tunisia follows a simple but efficient principle, keeping the total amount of sovereign debt under 60-65 percent of its GDP. Its liquidity position has been comfortable during most of the past decade, with debt service to exports ratio staying below 20 percent, and in recent years hovering around 15 percent.

More recently, it has become evident that to maintain these positive trends and to consolidate its position as one of the best-quality emerging market borrowers, the Government of Tunisia will need to restructure its debt management policies and institutions. The share of external debt remains large, and, together with the structural deficit on the current account, makes the country vulnerable to the volatility of international financial flows. At the same time, structural characteristics of Tunisia's financial sector and the still narrow domestic investor base make the deepening of domestic capital markets a challenging task.

The current approach managed to stabilize Tunisia's overall risk profile, but the efficiency of public debt management could be enhanced. Outstanding issues remain with regard to the strategic vision and the scope of Tunisia's public debt management; the measurement and disclosure of risk; and the reinforcement of debt management institutions and domestic market infrastructure. Complementary actions should be envisaged on a number of fronts:

- (i) Anchoring the strategy in a medium-term, rolling macroeconomic and fiscal framework;
- (ii) Formulating an integrated risk management strategy, based on appropriate risk benchmarks, taking into account all types of risks the government portfolio of debts and related assets may contain;

- (iii) Taking steps to strengthen the domestic government securities market—especially its medium- and long-term ends—as this is the only viable means to manage the exchange and rollover risks while reducing borrowing costs.
- (iv) Working towards the reorganization of the debt management institutions, to improve focus and flexibility, so as to enable the implementation of an effective public debt management strategy.

Because Tunisia is vulnerable to shocks, debt management should be cast in a medium-term framework that helps reckon the underlying risks for debt sustainability.

Risks to medium-term debt sustainability may arise from persistent external shocks, and may be exacerbated by existing rigidities in the budget. Promoting a robust medium-term fiscal policy framework will bolster the confidence of domestic and foreign investors on Tunisia's ability to cope with the surrounding risks, thus facilitating the move in due time towards active public debt management. International experience suggests that maintaining a sound macroeconomic policy framework is a prerequisite to reducing government financing costs over the medium to long term, as it enables the risk premia on government securities to decline. Such a framework also facilitates the development of government securities markets—especially extending the yield curve on domestic government securities into the medium and the long term—by strengthening investor confidence and improving the incentives to invest in government securities at reasonable market conditions.

Tunisia has a good track record of prudent macroeconomic management, but the transition to greater integration into global markets will raise challenges for debt sustainability due to competitive pressures and increased exposure to volatility.

A prudent macroeconomic policy framework is a valuable asset in public debt management and the development of the domestic government securities market. A prudent monetary policy has held inflation subdued, while helping keep external imbalances to sustainable levels. Fiscal consolidation has progressed, and despite a persistent primary structural budget deficit, the fiscal stance has been generally counter cyclical. Tunisia's choice to promote greater integration into global markets will lay the ground for faster growth, further bolstering investor confidence, and supporting debt sustainability. However, trade liberalization will make it more difficult to reduce both current account and budget deficits, while growth and the external balance may suffer setbacks from the increased volatility of tourism and travel.

In a baseline scenario that reflects Tunisia's good medium-term growth prospects, despite some tension on the external and internal balances, public debt would be sustainable.

Total public debt would decline to about 54 percent of GDP by 2012, from 61 percent in 2002. Domestic debt would increase to about 30 percent of GDP, partly substituting for foreign public debt. Total foreign debt would decline to about 44 percent of GDP—after accounting for foreign non guaranteed private debt rising to 20 percent of GDP, owing to the persistent current account deficit and reflecting the improved access of the private sector to international capital market financing. The favorable total public and foreign debt dynamics in the baseline scenario depend critically on the projected strong growth of the Tunisian economy.

The downside risks to GDP growth, stemming from Tunisia’s transition to a more competitive international environment, represent the main threat to debt sustainability in the medium term. A “stress test” for debt sustainability highlights the downside risks associated with a worst-case combination of unfavorable external shocks and a slow export recovery. In such a low-case scenario, total public debt could increase by as much as 20 percentage points of GDP compared to the baseline. Most of the increase in public debt would come in the form of domestic debt (13 percentage points of GDP), due to the increase in the primary budget deficit. Owing to a significant widening of the primary current account deficit, foreign debt would become unsustainable, increasing by about 20 percentage points of GDP by 2012 (including private non guaranteed debt).

Creating more fiscal space would help accelerate the reduction of public debt while hedging public debt against the surrounding downside risks. Tunisia’s foreign debt ratio is higher than in the average of other countries with a similar sovereign rating, suggesting that a faster reduction of public debt could yield substantial benefits in terms of access to international capital markets. Moreover, adjustment to preserve debt sustainability in a low case scenario would call for an important fiscal consolidation effort—estimated to 3.6 percentage points by 2012, assuming away the use of other adjustment options. The fiscal adjustment that would be required to stabilize debt levels underscores the needed additional room in the budget to prevent an increase in domestic and foreign debt if the highlighted shocks were to occur in the medium term. Main steps in this direction would call for improving the flexibility of the budget and further fostering public expenditure efficiency—as this will free up budgetary resources and help create the fiscal space needed to hedge the downside risks to public debt.

Taking early steps in fiscal consolidation would also hedge public debt from future calls on the budget that may arise from the contingent and implicit liabilities of the public sector. Contingent liabilities may arise from foreign exchange guaranties issued by the government—especially if policy adjustment to persistent external shocks were to partly rely on exchange rate adjustment. Funded guarantee schemes—such as the “*Fonds de péréquation des changes*”, whose liabilities are increasing rapidly, now amounting to 5 percent of GDP—may also generate losses, as suggested by the significant decrease in the Fund’s reserves. In the absence of reform, the pension system may soon become a source of implicit liabilities for the government due to its generosity (especially the CNRPS).

Contractual guarantees and other explicit contingent liabilities must be viewed as part of the government liability portfolio, and risks coming from them should be factored into the overall public debt strategy. The management of contingent liabilities requires the adoption of more sophisticated tools not only by debt managers, but by the Budget Office, and other government agencies. These tools allow the Ministry of Finance to make an informed choice across the whole spectrum of financial instruments, and, when deemed necessary, to set up appropriate provisioning levels for explicit contingent liabilities of the state. Public debt management, therefore, could consist of three “concentric” activities: *management* of the government contractual obligations proper; and *government authorization and monitoring* regime for other types of public sector

liabilities not covered by the sovereign guarantee; and primarily analytical follow-up of the implicit liabilities of the government.

For a small sovereign issuer such as Tunisia, the challenge is to define a set of strategic, market-neutral benchmarks, which will allow to reduce the overall exposure to portfolio risk. This will also be an important first step towards active public debt management. But active debt management should not be confused with high volume of transactions which constantly “chase” the benchmark. Active debt management calls primarily for a comprehensive, strategic vision of risk faced by a sovereign borrower. Periodic rebalancing of the portfolio is advisable only to the extent it serves this strategic vision. The functions of a debt benchmark include: incorporation of strategic objectives, limitation of risk, and measurement of performance. Recent international practice has defined five main principles for building portfolio benchmarks:

- Benchmarks should be tested and be efficient through a large number of market scenarios, with as little as possible reliance on assumptions about the future economic and financial environment;
- defined “for the long run”, possibly over the lifetime of government debt;
- provide the lowest cost for the chosen level of risk;
- simplicity and transparency—to be understood and followed by the common sense;
- reflect the current structural and institutional constraints of a sovereign issuer

Tunisia is perceived by investors as one of the safer emerging market borrowers, but its rollover (refinancing) risk is still tangible. For external debt, the share of short term debt in the total debt portfolio is now well below 15 percent. However, due to its current account vulnerability, Tunisia has little choice but to be prudent, as its ratio of short term debt to international reserves is on the high end of other countries in MENA. Domestic rollover risk is higher, despite the fact that demand from Tunisian investors, primarily commercial banks is stable. Measures aimed at increasing the average maturity of the public debt portfolio and avoiding bunching of maturities (using buy-backs and exchanges) decrease the rollover risk. However, in examining such measures, tradeoffs between different risks must be carefully considered.

Tunisia also faces a considerable exchange rate risk, despite the stability of the real effective exchange rate of the Dinar. The country has to cope with both types of exchange rate risk: (a) possible change in the value of the foreign currency debt due to the fluctuations of the exchange rate of the domestic currency; and (b) cross currency risk reflecting the risk exposure due to the currency composition of the foreign debt portfolio. These risks require that two separate benchmarks are defined. The currency benchmark should be formulated, with the aim of defining a desired proportion between foreign and domestic currency debt. This should reflect the Treasury's capacity to carry exchange rate risk, after taking into consideration the attractive characteristics of the foreign currency portfolio (often longer maturity, lower interest level, and much broader investor base). The second benchmark should address the cross currency risk in the foreign debt portfolio. Since the JPY risk is already swapped away, the main value of the cross currency risk benchmark would be in gauging the risk coming from other major

currencies (USD and Euro) as well as from the smaller currency components. In taking decisions on swapping away exchange rate risk of specific liability positions, it has to be ensured that counterpart ceilings are set at prudent levels.

An interest rate benchmark would help determine the acceptable level of interest rate risk more precisely. On the external debt side, the share of floating-rate debt has grown steadily since mid-1970s, from about 15 percent of the total external long-term debt to almost 35 percent in recent years. Since the overall level of debt service is significant, and since the budget is cash-based, fixed rate debt should be generally favored, even at the expense of increased cost of the borrowing program, because it makes interest expenditure more predictable over the medium run. However, Tunisia's exposure to interest rate risk is generally in line with MENA, but is much lower than in other comparable market borrowers. Hence, there may exist some potential to increase this exposure somewhat further, after accounting prudently for expected interest rate trends. A fix-floating mix benchmark should be formulated to measure the risk and the performance of the overall portfolio. The benchmark should be formulated with full awareness of Tunisia's likely limited and costly access to the interest swap market and should also take into account acceptable limits on counterpart risk.

In March 2003, Tunisia became the first member country of the World Bank to sign a Master Derivatives Agreement with it. This Agreement will assist the Government of Tunisia in reducing its currency and interest rate risks via a range of hedging products offered by the World Bank, including currency swaps, interest rate swaps, caps and collars and, on a case by case basis, commodity swaps. In providing these financial products, the World Bank stands between market institutions and its borrowers, entering into separate financial contracts with each of them. Tunisia therefore would benefit from financial terms that reflect the Bank's AAA credit rating.

The Tunisian Authorities have taken important steps to develop the market of the domestic public debt, since this is the only viable way to cope with exchange risk and towards lower rollover risk. Should the access of Tunisia to the international capital markets be temporarily restricted, the existence of a domestic liquid market would be essential to limit financing stress. Moreover, the development of a robust and liquid domestic market would give rise to a domestic yield curve, which could be used as reference for domestic issuers, the diversification of risks and the reduction of the long-term cost of the debt.

However, despite adequate technical infrastructure and regulatory framework, issuance in the primary market remains limited while the secondary market remains fairly inactive. The average maturity of domestic debt remains short—about 41 percent of total outstanding domestic debt has remaining maturity of less than one year and new issuance is skewed towards shorter maturities even more. Moreover, bonds outstanding are concentrated in the hands of a limited number of investors, the majority of which are public entities—such as, for example, the CNSS. The concentration of issues on a limited number of public sector investors, suggests that the primary market is still somewhat artificial.. The number of transactions in the secondary market is still very limited, and

most of these transactions take place *within* investment groups or in an over-the-counter market, where transparency is lacking. The absence of secondary market prevents the emergence of a yield curve.

The reasons for the inadequate functioning of the Tunisian public debt market are multiple and mutually reinforcing. Main bottlenecks can be traced back to five factors:

- the limited activity in the money market—an important underpinning of the bond market—partly due to the monetary policy operating procedures and partly to the incentives structure in the banking system;
- the narrow investor base;
- the issuing strategy of the Treasury on the primary market;
- institutional deficiencies that hamper the secondary market;
- psycho sociological factors

The stability and the predictability of the money market rates have hampered the development of an active money market. To achieve intermediate targets for credit growth, the Central bank of Tunisia (CBT) relies on the control of the volume of bank refinancing. The instruments used create dependence of banks to CBT refinancing facilities, and convey to the CBT a dominant position in the money market. In addition, the absence of a yield curve prevents adequate assessment of credit risks, leading to generalized credit indexing on the money market rate (TMM). Since the interest rates of many deposits and loans agreements are indexed on the money market rate (TMM), changes in monetary policy are likely to be quickly reflected in the financial system and the economy as a whole. This has created rigidity in interest rates, promoting dependable and easy access of banks to liquidity at a predictable rate. The easy and foreseeable access of Banks to CBT refinancing has discouraged the development of an active interbank market. The delay in the introduction of repurchase agreements has also inhibited money market development. interest rate rigidity also discourages the development of secondary bond markets, wherein transactions rest primarily on differences in anticipated interest rate changes.

The Treasury, despite its stated willingness to adhere to the rules of the market in order to meet the government's financing needs, finds it hard to build its credibility as an issuer. Treasury issuance is perceived as lacking transparency, because the issuance calendar undergoes many changes, such as cancelled auctions, sometimes for a long period. One reason is that Treasury does not participate in the interbank market. The lack of transparency and predictability makes market participants uncertain about the issuing policy and reduces the perceived liquidity of the market. The Treasury's credibility is also hampered by a reluctance to issue at yields deemed higher than what it considers as the appropriate market levels. As a result, bond auctions meet little success. The Treasury encounters particular difficulty to issue in the long term end of the yield curve. Along with adhering to the rules of the market, it is important to ensure that sufficient competition from market participants prevails in the Treasury's offerings. Regulatory safeguards that prevent collusive behavior in the market should, thus, be enhanced, while collaboration between the Central Bank and the "Comité du Marché Financier" should be strengthened.

Developing an efficient domestic public debt market is a long-term endeavor and entails a cost at the beginning. This is suggested by the experience of countries which acquired the status of a high grade sovereign issuer, along with the associated advantages in terms of issuing conditions, reduction of public debt cost and of the financing cost in the national economy as a whole. The benefits come only later on, when the credibility of the Treasury as an issuer has been well established. A rule to enhance credibility would call for the Treasury to issue *not when it needs but when it can*. Moreover, the limited amount of securities outstanding do not support the liquidity and the development of the secondary market. The BTA buy back policy of the Treasury does not contribute to increase neither the outstanding stocks nor the liquidity of the market.

Although the secondary market remains inactive, there exists a "parallel" secondary market for intra-group transactions. The secondary market transactions have to take place in the framework of the Stock exchange (Bourse de Tunis) but these transactions are non-existent. Nevertheless, over-the-counter, intra-group transactions exist. These transactions lack transparency, as they are not reported to the market authority (the Stock exchange), while their financial conditions may also be questionable, as they may be underpinned by accountancy and balance sheet reasons. Improving the transparency of these transactions, mainly carried out by the banks, would help the development of the secondary market, but would call for close coordination between the supervisory authorities of the banking system and the capital market. Moreover, the obligation of quotation is not constraining enough to support the development of the secondary market.

The development of domestic markets government securities has been held back by the absence of domestic or international investors with a strong appetite for long maturities. The pension funds are not largely developed in Tunisia, while the global financial health of the insurance sector is precarious and life insurance is still in its infancy. By contrast, the Collective Investment Institutions are reasonably well developed, with total assets of SICAVs surpassing 5 percent of GDP and growing fast. The SICAV could contribute to the development of the secondary market and the establishment of a yield curve if the "intra-group" transactions were properly regulated. Further strengthening of supervision would also be needed, especially to ensure proper valuation of assets and compliance with custodial and auditing rules. With an appropriate framework in place, the development of a capitalization pillar for the pension system would contribute to increased institutional savings and reinforce the development of a domestic bond market. .

Partially opening of domestic debt issuance to foreign investors could be seen as a step to strengthening the demand for government securities. However, this opening implies a meticulous preparation to guarantee its success, since a false step might prove expensive in terms of investor confidence (investors do not make the difference between loans in currency and domestic loans) thereby influencing Tunisia's access to international capital markets. An option would be to open a new line of three-month BTCT , which would be entirely open not only to residents but to foreign investors as well. That would help familiarize foreign investors with the local market given that liquidity is less of concern for short-term paper than long-term bonds, while Treasury

would retain control of stocks outstanding. Depending on experience, this access could be gradually broadened.

In Tunisia, debt management practices are strong, but will benefit from greater centralization and functional focus. Government debt management is scattered across several agencies. The current setup provides good control over the individual debt instruments, but does not support the integrated view of public debt portfolio, and could obstruct active risk management. The debt management function must be centralized; and debt management units must be given more operational flexibility. A new government function for risk management must be created, and a sustainable medium-term debt strategy must be formulated, relying upon clearly defined quantitative benchmarks.

These needs can be met most efficiently via the establishment of a specialized Debt Agency, to manage the whole liability portfolio of the Tunisian government, and a High Debt Committee to steer the Agency and to set the medium-term debt strategy. The Committee should be chaired by the Minister of Finance, and have senior-level representation from all relevant government institutions as well as the BCT. Internally, it is advisable to organize the Debt Agency by function, as follows: the Back Office (debt recording and accounting), the Middle Office (risk management and analysis) and the Front Office (borrowing and hedging operations). Within the new structure of the Debt Agency, the Middle Office should be responsible for drafting a comprehensive medium-term liability management strategy. Once the strategy is approved by the High Debt Committee, the Middle Office should supervise its implementation. In doing this, the Middle Office should not engage in debt transactions, but serve as a risk “watchdog”.

Strong capacity for active debt management requires an adequate system of incentives. Tunisian government debt managers should have attractive remuneration and promotion structures, comparable with the private sector investment institutions, which need similar skill profiles. The Debt Agency should have greater autonomy in managing its pay scales and hiring procedures.

Institutional reform requires strong political leadership and a new legal framework. The reform would entail deep shifts in the mandates of various government agencies. Strategic vision and leadership is needed to escape bureaucratic impasse, and to realize long-term gains from the new institutional structures. A coherent legal framework, giving the newly created Debt Agency a strong risk control mandate, must shore up the envisaged reforms. It is advisable to pass a new Law on Public Liability Management, endorsing the contemplated reform of debt management institutions and processes.

Summary of recommendations and sequencing of reforms

<i>Objectives</i>	<i>Short-term actions (over 24 months)</i>	<i>Medium-term actions (over 2-4 years)</i>
<p>I. Anchor the strategy in a sound, medium-term macroeconomic framework</p>	<p>a) Adopt an integrated government debt and risk management strategy, anchored in a rolling medium-term fiscal framework and the five-year development plan, and comprising all types of government liabilities, including the contingent ones; update annually, as part of the annual budget exercise</p> <p>b) Create more fiscal space to hedge the public debt from the surrounding downside risks and from future calls on the budget that may arise from the contingent and implicit liabilities of the public sector. Main steps in this direction would call for improving the flexibility of the budget and further fostering public expenditure efficiency to free up budgetary resources.</p>	
<p>II. Formulate an integrated risk management strategy</p>	<p>a) Ensure regular in-year (at least quarterly) consolidation of all relevant public debt data, including on contingent liabilities of the government, public sector debts on onlending operations, to allow regular updating of debt sustainability scenarios and portfolio benchmarks.</p>	<p>a) Formulate benchmarks for the composition of the debt by maturity, currency and interest rate; adopt more formal techniques to manage and diversify the risks;</p> <p>b) Introduce quantitative risk measurement methodologies for the portfolio of financial guarantees and other contractual liabilities of the Government, including the guarantees of the loans of the non-financial companies and the banks, as well as the exchange shortfall guarantees (perequation des changes)</p>

III. Take steps to strengthen the domestic government securities market

a) Promote an active interbank market and a short-term yield curve by reforming the implementation of monetary policy away from controlling interest rates, towards controlling bank reserves. Accelerate the implementation of monetary control based on open market operations.

b) Enhance the Treasury's credibility as "Sovereign issuer", in particular with regard to (1°) the predictability of its issuances, (2°) to pay the market prices at the auctions and (3°) to limit its issuances to a few bonds chosen after consultation of the market.

c) Accelerate the drafting of a new Code of duties for operators in the domestic government securities market. Pay particular attention to the remuneration of the S.V.T. and the obligation of quotation. Other technical measures (legal framework of the repo operations, improvement as regards settlement and liquidation, revision of the auctions procedures) should be quickly implemented. Enhance cooperation of supervisory authorities and regulatory safeguards—including penalties in the SVT duties agreements—in order to prevent collusive behavior in the market.

d) Improve the transparency of the secondary market, in particular for the intra-group transactions. At the minimum, make compulsory the reporting of the intra-group transactions to a regulatory authority, which would daily publish an "official yield curve", whether the transactions take place on the stock exchange or elsewhere.

a) Open up progressively domestic debt issuance to foreign investors to strengthen the investor base for government securities. Phase in measures in tandem with the improvement of the liquidity of the secondary market.

b) Continue efforts at privatization and restructuring of public banks, to strengthen incentives for active participation in money and bond markets.

	<p>e) Initiate a consultation on the structural reforms that would strengthen the investor base and promote skills in the debt market (opening of the banking sector; promotion of long term savings—especially of a capitalization pillar for retirement benefits). The reforms in these fields are delicate, will not bring their effects before long, and may be costly, so that it is important to begin at an early stage.</p>	
<p>IV. Reorganize the debt management institutions</p>	<p>a) Centralize the national debt management (including State Contractual guarantees) in a Specialized Public Agency - Debt Agency; organize this Agency by function, starting with the creation of a department (Middle Office) responsible for the elaboration of a medium-term debt and risk management strategy of public debt portfolio, and transfer to the debt Agency all debt departments in charge of reporting (<i>Back Office</i>) ;</p> <p>b) Establish the intergovernmental Committee of Debt in charge with adopting the medium-term debt strategy;</p> <p>c) Equip the Treasury Debt management Units with qualified, well-paid staff, and an adequate information processing system, to form an integrated view of the government debt management function;</p>	<p>a) Establish a quantitative framework for risk measurements of the national debt portfolio and the Agency performance as an entity managing the national debt; insure the follow-up on the achievement of quantitative objectives;</p> <p>b) Transfer to the Debt Agency all departments in charge of debt transactions and working with investors and financial brokers (Front Office);</p> <p>c) Strengthen the fiscal agent function of the Central Bank of Tunisia by adopting an Agent Agreement between the Treasury and the CBT and clearly defining the agency functions of the CBT.</p>

I. Coping with risks to medium-term debt sustainability

I.1 Creating an enabling environment for active debt management: the role of a sound macroeconomic policy framework in the face of risks

1. ***Public debt management and the development of a government securities market is more successful when a consistent medium-term macroeconomic policy framework is in place.*** Domestic and foreign investors will be reluctant to hold government securities, especially medium- and long-term maturities, when there are expectations of macroeconomic imbalances, leading to high inflation, overvalued exchange rates, and raising even remote risks of default. Public debt management is, therefore, supported by a sound macroeconomic policy framework with a credible commitment to prudent and sustainable fiscal policies, stable monetary conditions, and a credible exchange rate regime (World Bank/IMF, 2002). Maintaining a sound macroeconomic policy framework is a prerequisite to reducing government financing costs over the medium to long term, as it enables the risk premia on government securities to decline. Moreover, such a framework facilitates the development of government securities markets because it bolsters investor confidence and improves the incentives to invest in government securities at reasonable market conditions. Stable expected monetary conditions—including a credible exchange rate—is a precondition for extending the yield curve on domestic government securities into the medium and the long term.

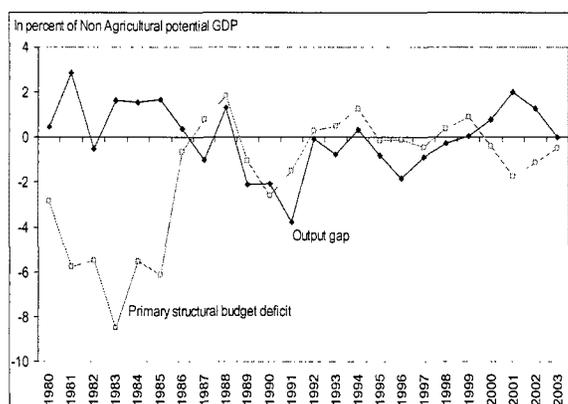
2. ***Promoting a robust medium-term fiscal policy framework is key to strengthening policy credibility and bolstering the confidence of domestic and foreign investors.*** Creating an enabling environment for active debt management calls for consistency among fiscal, monetary, exchange rate, and capital account policies, and also requires a financially healthy banking system. However, maintaining a robust medium-term fiscal framework is the key underpinning of debt sustainability and also determines the ability of the government to cope with macroeconomic risks and unexpected calls on the budget. Such a fiscal framework should be able to efficiently collect direct and indirect tax revenues; provide an effective budgeting and expenditure control system that ensures flexibility without compromising expenditure efficiency; and be able to account for contingent liabilities of the public sector—including public pensions and diverse government guarantees.

3. ***Tunisia has a good track record of prudent macroeconomic management, which is a valuable asset in the move towards active public debt management and the development of the domestic government securities market.*** A prudent monetary policy has held inflation subdued, while helping keep external imbalances to sustainable levels. Fiscal consolidation has progressed, and despite a persistent primary structural budget deficit, the fiscal stance has been generally counter cyclical—as suggested by the positive correlation between the estimated primary structural budget deficit and the output gap (*Figure I-1*).¹ When Tunisia faced severe external shocks, as in 2002, swift fiscal

¹ The structural budget deficit was estimated after removing the cyclical component from the actual deficit, due to the operation of fiscal automatic stabilizers. Automatic fiscal stabilizers in Tunisia are related to the

adjustment has been forthcoming to help absorb part of the external financing gap. For example, in 2002, the withdrawal of fiscal stimulus amounted to 0.6 percent of GDP, while the 2003 budget maintains a similar pace of fiscal consolidation.

Figure I-1. A counter cyclical fiscal stance, despite a persistent structural budget deficit



Source: World Bank staff

4. **Over the past two decades, Tunisia successfully controlled the public debt burden, but faster reduction of foreign debt could yield substantial benefits.** Prudent macroeconomic policies have helped Tunisia improve its access to international financial markets, allowing borrowing at long maturities and under relatively favorable conditions (see Chapter 2). However, Tunisia’s foreign debt remains high in international comparison, especially in view of the country’s exposure to external shocks. Because of the structural current account deficit and the persistent primary budget deficit, public debt hovered at around 60 percent during the 1990s (of which, 39 percent foreign and 22 percent domestic debt in 2002). Tunisia’s foreign debt ratio is about 12 percentage points of GDP higher than in the average of 10 other countries with a similar sovereign rating (BBB-, BBB, and BBB+), suggesting that a faster reduction of public debt could yield substantial benefits in terms of access to international capital markets.²

5. **Tunisia has made the firm choice of integrating more closely the world economy—a strategic move that will lay the ground for faster growth and support debt sustainability.** Ongoing trade liberalization, spurred by the Association Agreement with the EU, will facilitate integration of Tunisian firms into EU cross-border production networks, thus further improving Tunisia’s attractiveness as a hub for export-oriented foreign direct investment. Increased domestic and foreign investment and development of new competitive niches will create an enabling environment for faster growth, helping Tunisia to meet the growth challenges of the 10th Development Plan and beyond. Fast and

procyclical changes in direct and indirect taxes. However, because the tax base of direct taxes—which are far more sensitive to GDP changes—is narrow, the cyclical component of the budget is relatively small. The cyclical component hovers around an estimated ± 0.5 percent of GDP, so that the estimated structural budget deficit comes very close to the actual deficit.

² The comparators are Latvia, Poland, China, Lithuania, Slovak Republic, Trinidad and Tobago, Croatia, Mexico, South Africa, and Thailand.

sustained growth will further bolster investor confidence as it will be critical in supporting Tunisia's debt sustainability in the medium and long term.

6. *But the transition to greater integration into global markets will also raise challenges, due to competitive pressures and exposure to volatility.* The tariff reductions scheduled in the Association Agreement with the EU, combined with the need for large imports of equipment and intermediate goods to support fast growth, will make it more difficult to reduce current account deficits. The loss of tax revenues on external trade will enlarge the financing needs in the budget. Also, with the gradual phasing-out of the MFA quota system by 2005, Tunisia's textile exporters will face stiffer competition from low-cost producers in traditional European markets (see World Bank, 2001). Deeper integration into EU markets will heighten Tunisia's dependency on economic swings in the EU, where growth has proven less resilient to global downturns, as seen in the 2001-2002 slowdown. Anemic growth in the EU, which absorbs more than 75 percent of Tunisia's exports and is home to more than 70 percent of the country's foreign visitors, is swiftly felt in Tunisia, as in the sharp slowdown seen in 2002. In the emerging international environment with heightened security concerns, growth and the external balance may also suffer setbacks from the increased volatility of tourism receipts.

7. *Because of Tunisia's vulnerability to shocks, debt management should be cast in a medium-term framework that helps reckon the underlying risks for debt sustainability.* Risks to medium-term debt sustainability may arise from persistent external shocks, and may be exacerbated by existing rigidities in the budget. The strategy of public debt management will thus need to go in tandem with initiatives that further strengthen the fiscal framework, with the aim of increasing the government's ability to cope with the surrounding risks. To highlight how such risks may affect Tunisia's current account and fiscal balances, and the dynamics of foreign and domestic debt, two scenarios are reviewed below. Both cover a ten-year period, up to 2012, to allow for long-term adjustments of debt in the face of shocks.

- A baseline scenario, reflecting Tunisia's good medium-term growth prospects, underpinned by deeper integration into global markets, sound fundamentals, and a good track record of prudent macroeconomic management in the face of shocks.
- A low-case scenario, reflecting the downside risks and Tunisia's vulnerabilities in the transition towards deeper international integration. This scenario should be considered as a benchmark, reflecting a combination of risks that would give rise to a "worst-case" outcome. A number of intermediate scenarios would become likely in the presence of milder shocks.

1.2 The medium-term baseline scenario: debt sustainability secured by fast growth

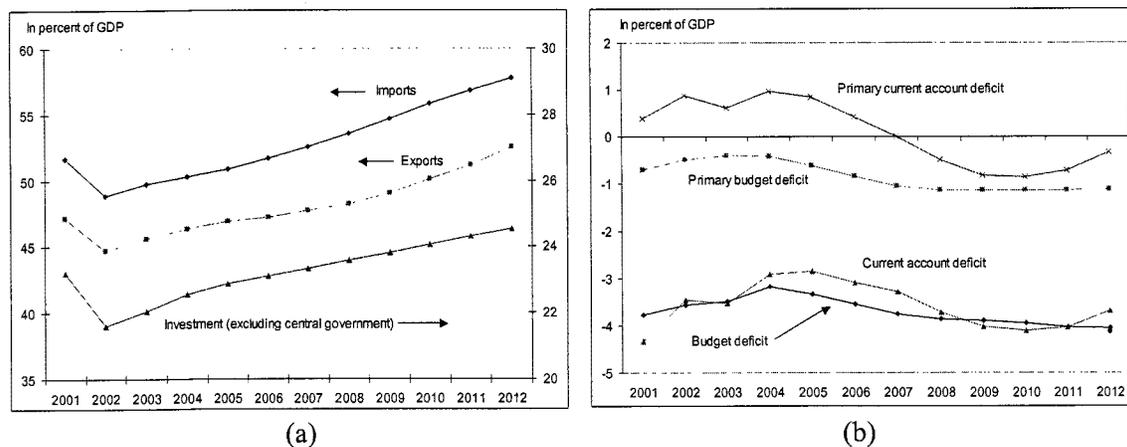
8. *The baseline scenario assumes steady GDP growth, but accounts for current account pressures and loss of fiscal revenues in the run up to the free-trade zone with the EU.* Real GDP grows by an annual rate of 5.6 percent on average, leading to a nearly doubling of Tunisia's per capita GDP by 2012 (see Annex 1 for a detailed description). Growth is underpinned by healthy investment and productivity growth, while export growth, spurred by better competitiveness and export-oriented FDI, provides added

impetus to GDP growth (Figure I-2a). However, reflecting steady growth of equipment imports and the dismantlement of tariff protection, the primary current account turns from a small surplus into a deficit of nearly 1 percent of GDP (Figure I-2b). Because imports from the EU account for more than 75 percent of Tunisian imports, the completion of the Association Agreement with the EU will entail a sizeable loss of fiscal revenue from external trade taxes. Despite improved tax collection, the primary budget deficit worsens by 0.6 percentage points of GDP compared to 2002 (Figure I-2b).

Figure I-2. The baseline scenario: Drivers of growth and macroeconomic imbalances

Growth is underpinned by healthy investment and increased integration with global trade...

...but tariff dismantlement exerts pressure on external and internal balances



Source: World Bank staff

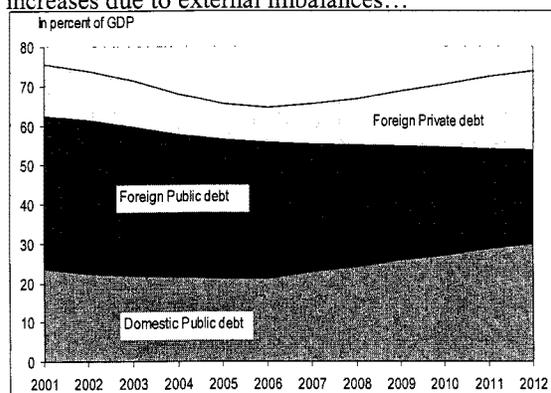
9. **Despite some tension on the external and internal balances, debt would be sustainable.** Total public debt declines to about 54 percent of GDP by 2012, from 61 percent in 2002—although at a much slower pace after 2006 due to the widening primary current account and fiscal deficits. At the same time, the persistent fiscal deficit entails an increase in domestic public debt to about 30 percent of GDP. Domestic debt is thus partly substituted for foreign public debt (Figure I-3.a). By contrast, foreign private debt increases to 20 percent of GDP, from 12 percent in 2002, owing to the persistent current account deficit and reflecting the improved access of the private sector to international capital market financing. However, total foreign debt declines to about 44 percent of GDP, from 51 percent in 2002 (Figure I-3.b). Owing to the favorable foreign debt dynamics, external vulnerability somewhat recedes, with the debt service ratio hovering around 11 percent of total exports, down from about 14 percent in 2002.

10. **Debt sustainability is secured by high growth rates.** The favorable total public and foreign debt dynamics in the baseline scenario depend critically on the projected strong growth of the Tunisian economy. With growth projected at 5.6 percent per year, significantly above the real interest rates on foreign and domestic debt (see Annex 1), the likelihood for debt sustainability improves dramatically, provided the primary current

account and fiscal deficits remain below reasonable margins.³ The downside risks to GDP growth, stemming from Tunisia's transition to a more competitive international environment, represent the main threat to debt sustainability in the medium term.

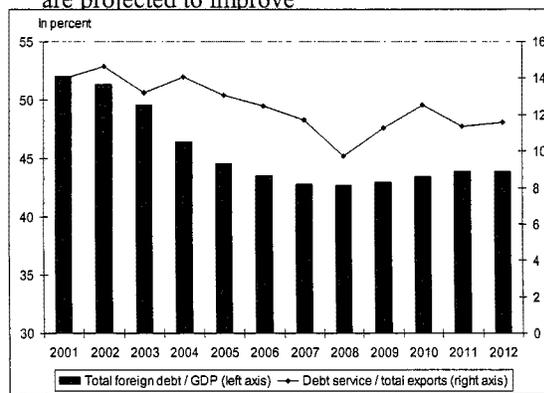
Figure I-3. Debt dynamics in the baseline scenario

Total public debt is reduced while foreign private debt increases due to external imbalances...



(a)

...but indicators of external vulnerability are projected to improve



(b)

Source: World Bank staff

I.3 A stress test: Persistent external shocks would put medium-term debt sustainability at risk

11. ***The low-case scenario highlights the downside risks of combined unfavorable external shocks and a slow export recovery.*** In this scenario, Tunisia suffers a decline in export demand for goods and services in 2005, due to a combination of adverse developments:

- A possible slowdown in growth of its main trade partners;
- A loss of market shares in textile and clothing exports due to the removal of MFA quotas;
- A drop in tourism receipts, similar to that seen in 2002, possibly due to slow economic activity in the EU and/or to renewed security concerns in international travel.

The drop in export revenues lasts for two years, while sluggish export growth lowers exports by about 6 percentage points of GDP by 2012 (*Figure I-4.a*). The lowering of tariffs and the completion of the Association Agreement with the EU would be likely to boost import demand despite the slowdown of activity. The primary current account deficit widens by about 2 percentage points of GDP compared to the baseline scenario, to reach 2.5 percent of GDP by 2012 (*Figure I-4.b*).

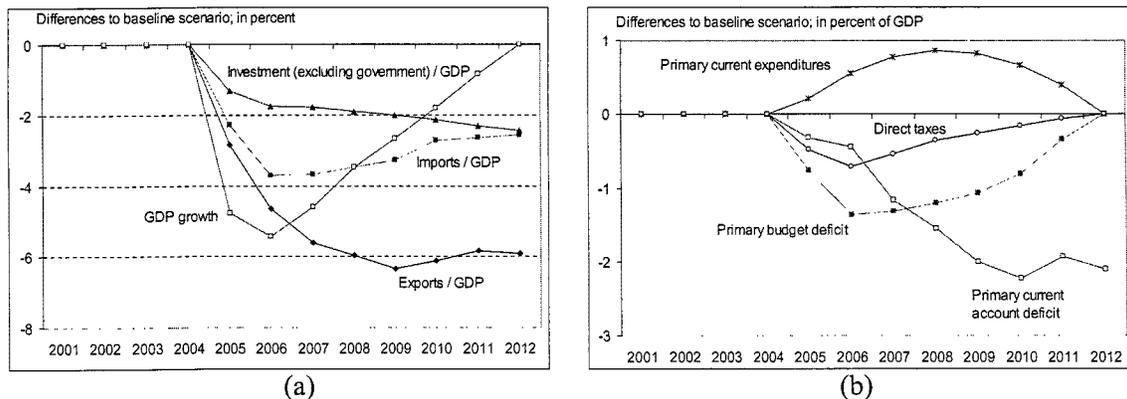
³ As established in previous studies (World Bank, 2001), with a growth rate of 5.5 percent and a real implicit interest rate on foreign debt of 3.3 percent, Tunisia could afford a primary current account deficit of up to 1.1 percent of GDP without compromising foreign debt sustainability.

12. Persistent external shocks would spread over to domestic demand, thus exacerbating the downturn. Domestic investment drops, thus, by about 2.5 percentage points of GDP compared to the baseline scenario (Figure I-4a). Foregone growth is about 5 percent per year on average during the first three years after the shock, with growth only gradually resuming thereafter, to reach the baseline by 2012.

Figure I-4. The low-case scenario: A downturn driven by persistent external shocks

Reflecting trade liberalization, shrinking exports are only partly offset by a decline in imports...

...leading to an unsustainable current account deficit, while the primary budget deficit temporarily increases



Source: World Bank staff

13. Sluggish growth would broaden the budget deficit, thus further boosting public debt. Slower economic growth would exert pressure on the primary budget deficit, on both the expenditure and the revenue sides.

- On the expenditure side, the main vulnerability stems from the sizeable government wage bill—accounting for about 56 percent of primary current public expenditures (about 12.3 percent of GDP). Because wage agreements span over three-year periods, while employment in the public sector still constitutes a significant source of job creation (World Bank, 2003), the wage bill remains relatively inflexible and it would likely display inertia in case of a downturn. The low-case scenario assumes that, eventually, the government wage bill keeps pace with slower average GDP growth, so that by 2012 it remains constant as a proportion to GDP. However, because of lower wage and employment flexibility in the civil service, the wage bill increases as a share of GDP during the initial stages of the downturn, by as much as 1 percentage point compared to the baseline (Figure I-4b).
- On the revenue side, tax revenues are generally procyclical as they are proportional to incomes or expenditures. But the progressivity of some direct taxes, especially the tax on personal income, makes such tax revenues elastic with respect to GDP growth. The share of direct income tax revenues in GDP varies

thus positively with the rate of income growth.⁴ In the low-case scenario the slowdown spurs a transitory decline in income taxes by about 0.7 percentage points of GDP, with the tax ratio gradually returning to its initial level thereafter (Figure I-4b).

Reflecting the limited flexibility of current public expenditures and the foregone direct income tax revenues, the primary budget deficit increases by as much as 1.3 percentage points of GDP, before returning to the baseline level by 2012.

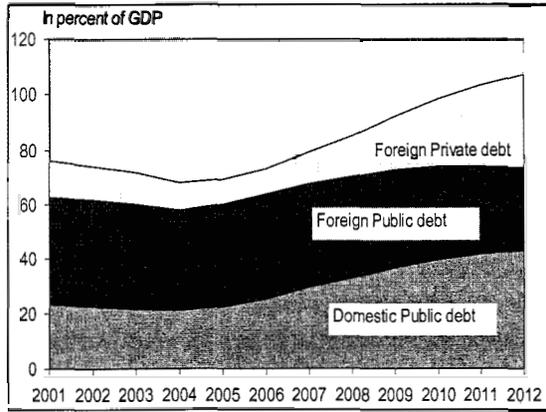
14. In the low-case scenario, total public debt could increase by as much as 20 percentage points of GDP compared to the baseline. Most of the increase in public debt would come in the form of domestic debt (13 percentage points of GDP), due to the increase in the primary budget deficit (Figures I-5a and I-5b). Due to the increase in public debt, the burden of interest payments rises to 4 percent of GDP by 2012, compared to 3 percent in the baseline. Interest payments would thus end up absorbing nearly 16 percent of tax revenues, up from 11.5 percent in the baseline. Once again, it should be stressed that the low-case scenario is meant to be a “stress test”, associated with a worst-case combination of unfavorable shocks. A number of intermediate scenarios would be likely under milder downside circumstances.

15. Owing to a significant widening of the primary current account deficit, foreign debt would become unsustainable. Foreign debt would increase by about 20 percentage points of GDP above the baseline scenario by 2012 (Figure I-5b). Most of the increase reflects private foreign debt, due to assumed greater private sector access to international capital markets (Figure I-5a). Larger foreign public debt accounts for about 6 percentage points of the increase in total foreign debt. The unfavorable debt dynamics would exacerbate external vulnerability, with the debt service to exports ratio rising by 6 percentage points compared to the baseline (Figure I-6). The spiraling foreign debt reflects the unsustainable primary current account deficit, which—contrary to the primary budget deficit—would fail to close down under the low-case scenario assumptions. For this level of the primary current account deficit to be sustainable, growth would have to resume at a steady rate much higher than in the baseline, of about 8 percent per year (see World Bank, 2001).

⁴ Reflecting the progressivity of the tax rates, the elasticity of direct taxes to GDP was estimated at 2.3, while the elasticity of indirect taxes was estimated at 0.9. Corporate tax revenues are also elastic, despite a flat statutory corporate tax rate, owing to the numerous exemptions that reduce taxable corporate income, thus making the effective corporate income tax progressive.

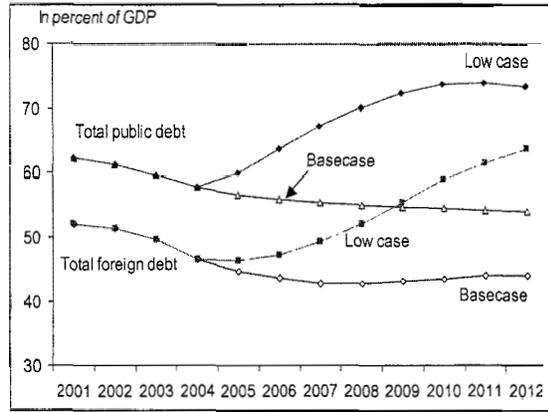
Figure I-5. Debt dynamics in the low-case scenario

Total public debt and foreign private debt spiral up...



(a)

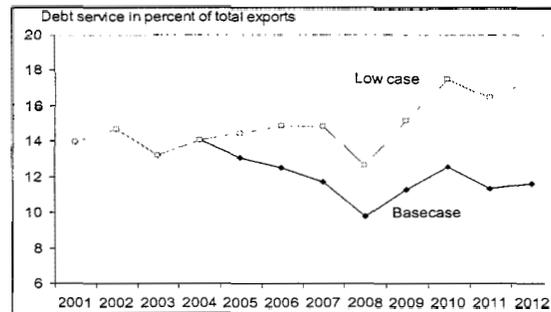
...by about 20 percentage points of GDP



(b)

Source: World Bank staff

Figure I-6. In the low-case scenario external vulnerability would increase



Source: World Bank staff

16. *Short of an exceptionally fast resumption of growth, restoring external sustainability would call for a significant improvement in competitiveness to revitalize exports, along with policy adjustment to absorb part of the financing gap.* Policy adjustment would be needed, because Tunisia's external vulnerabilities highlighted in the low-case scenario may give rise to quasi-permanent shocks, in the sense that the effects of such shocks could persist for a significant period of time. Complementary policy options would have to be envisaged on different fronts:

- Tightening fiscal policy to reduce the primary fiscal deficit, which would further dampen domestic demand and the demand for imports, thus preventing the deterioration in the current account balance;
- Tightening monetary conditions to further rein in the growth of domestic demand and hold back the growth of imports;

- Adjusting the exchange rate to offset the loss of competitiveness, due to the structural shifts in the demand for Tunisian exports and the increased penetration of imports in the context of trade liberalization.

17. Policy adjustment would reduce fiscal and current account imbalances, but the effect of different adjustment options on debt dynamics would be uneven. In particular, monetary restraint and exchange rate adjustment would also have an effect on public debt. The increase in domestic interest rates would increase interest payments on domestic debt, enlarging the fiscal deficit, and making it harder to reduce the debt ratio. Exchange rate depreciation would raise the burden of foreign debt and debt service. On impact, a 10 percent exchange rate depreciation would increase the public debt by an estimated 3.8 percentage points in proportion to GDP, while the debt service would increase by 0.7 percentage points of GDP. Moreover, fresh debt may need to be issued to pay for contingent liabilities related to the foreign exchange guarantees granted by the government to foreign borrowing by public enterprises and banks (see below).

18. The required fiscal adjustment to prevent an increase in domestic and foreign debt in a low-case scenario would depend on the parallel use of other policy options. As a benchmark, the fiscal adjustment that would be required to keep the public and total foreign debt constant in percent of GDP was estimated assuming away other complementary options of adjustment. Placing the burden of adjustment on fiscal policy would increase the size of needed action, but would be free of drawbacks in terms of larger interest payments on public debt and higher foreign debt burden associated with other policy options. Intermediate cases of milder fiscal consolidation could be considered, depending on the parallel use of other adjustment options.

1.4 Creating more fiscal space would hedge public debt from downside macroeconomic risks and the contingent liabilities of the public sector

19. In a low-case scenario, options for fiscal consolidation would have to rely primarily on expenditure reduction. The required fiscal adjustment was estimated assuming the concurrent use of three fiscal options:

- Holding primary current expenditures constant in real terms throughout the projection, from 2005 to 2012. Primary current expenditures would be reduced by about 2.5 percentage points of GDP by 2012, with the onus of the adjustment (2 percentage points) falling on the government wage bill.
- Reducing capital expenditures by one percentage point in proportion to GDP.⁵
- Taking measures aimed at broadening the tax base, to offset the temporary drop in the share of tax revenues in GDP that would occur in a low-case scenario.⁶

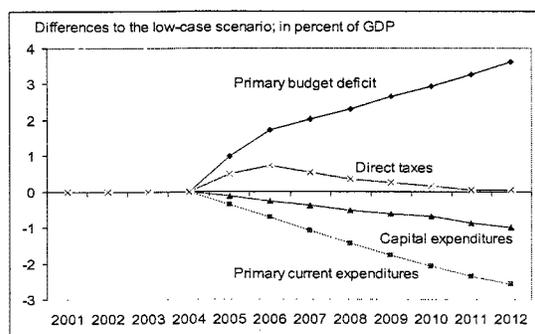
⁵ Reducing public capital expenditures would be facilitated by greater private sector participation in infrastructure, supported by an accelerated opening up of network industries and infrastructure services to competition. This would also enhance non debt creating sources of external financing—thus relieving pressure from the capital account and allowing a more rapid reduction of external debt—as foreign direct investment inflows have been greatly boosted by services liberalization across developing countries.

20. **Adjustment to preserve debt sustainability would call for an important fiscal consolidation effort.** The required adjustment in the primary fiscal deficit would gradually rise to 3.6 percentage points by 2012 (Figure I-7a). With private sector investment and savings assumed to remain constant in proportion to GDP, the fiscal consolidation would be matched by a decrease in the current account deficit that would prevent the unsustainable rise in the foreign (private and public) debt associated with the low-case scenario. Reflecting fiscal consolidation, both debt ratios would converge to their baseline levels by 2012 (Figure I-7b).

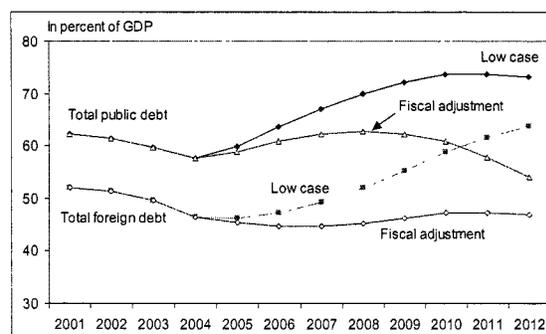
Figure I-7. A fiscal consolidation scenario to maintain debt sustainability in the face of external shocks

Adjustment would call for a significant fiscal effort...

...that would prevent an increase in total public and foreign debt



(a)



(b)

Source: World Bank staff

21. **Accelerating privatization, and using the receipts to reduce public debt, may provide an additional cushion to hedge downside risks, thus reducing the size of needed fiscal consolidation.** However, privatization receipts may be volatile, because they depend on market conditions, and do not provide a sustained source of fiscal revenue. Though this option may provide some relief, it should not be viewed as a viable alternative to fiscal consolidation.

22. **Creating more fiscal space would insulate the public debt from the surrounding downside risks.** The fiscal adjustment required to stabilize debt levels in a low case scenario underscores the additional flexibility in the budget that would be needed to hedge public debt management from persistent external shocks during Tunisia's transition to a more open trade and financial regime. Taking early steps in fiscal consolidation would create enough room in the budget to prevent an increase in domestic and foreign debt if the shocks highlighted in the low-case scenario were to occur in the medium term. Creating enough fiscal space would be appropriate not only to secure debt sustainability in the face of risks, but also to possibly allow some counter cyclical fiscal

⁶ Such measures could, for example, come in the form of streamlining the generous system of tax incentives to investment, which in 2001 entailed an estimated fiscal cost of 1.8 percentage points of GDP (DT 528 million, on account of foregone fiscal revenues for VAT, tariff duties, and corporate income tax rebates—World Bank, 2002).

stance to offset part of the downside impact of external shocks. Main steps in this direction would call for further strengthening public expenditure management with the aim of fostering the efficiency of public expenditures (achieving better outcomes per unit of money spent) and improving the flexibility of the budget (*Box I-1*).

***Box I-1. Enhancing Expenditure Effectiveness and Budget Flexibility:
Mutually Reinforcing Steps to Secure Debt Sustainability in the Face of Downside Risks***

Promoting greater efficiency of public expenditures will free up budgetary resources and help create the fiscal space needed to hedge the downside risks to public debt. Improving the efficiency of public expenditures generally calls for arrangements that facilitate expenditure reallocation towards the most valuable uses, by ensuring that there is no under-provision of key public services, or over-provision, in the form of programs that are unnecessary or fail to adapt to changing circumstances. Greater flexibility in expenditure allocation will make overall public expenditure easier to control, thus increasing the capacity of fiscal policy to meet unforeseen developments and external shocks that may put into risk an otherwise sound public debt management policy. Greater public expenditure efficiency and enhanced budget flexibility are, therefore, mutually reinforcing. Policy options may be considered along a number of different (but not exclusive) directions:

Performance-based budgeting. Efficiency of public expenditures calls for spending public money where it has the greatest impact, within the limits of the global resource envelop available. This is facilitated by performance-based budgeting, which requires linking reallocation with information concerning the effectiveness of expenditures, based on multi-year impacts and program outcomes. Such a framework would need to be underpinned by institutional arrangements between central budget authorities and line departments that facilitate expenditure reallocation towards the most valuable projects. To this end, appropriate performance indicators should be developed, within the context of a Medium-term Expenditure Framework. Owing to the complexity of the issues involved, a shift towards performance-based budgeting would have to be progressive. It thus becomes important that steps in this direction be taken from an early stage.

A Medium-Term Expenditure Framework. A MTEF would help anchor annual expenditure appropriations in medium-term projections. This would involve establishing expenditure targets within a baseline projection, which would help measure the fiscal impact of policy changes and reckon the implications of downside risks. The baseline possibly covers three to five years, and is rolled over with each annual budget. Experience suggests that a MTEF helps recognize the implications of current budgetary decisions for government finances in the future, thus limiting inefficiencies arising from annual appropriations for multi-year capital projects. The establishment of multi-annual budgets within a comprehensive macroeconomic framework, based on realistic projections, would help prioritize projects that should be carried out immediately and program those that might be spread over several years.

Promoting efficiency in the operation of the civil service. Experience suggests that flexible incentives in the civil service help strengthen management of the wage bill and improve public service provision. Options may involve more market-oriented and flexible approaches to public sector pay determination; conditions of employment; redeployment; and staffing levels; with the aim of creating scope for efficiency gains through reduced operating expenditures and improved public services. Options may also involve contracting out, while the introduction of modern accounting and reporting systems greatly facilitates performance assessment.

Source: World Bank staff.

23. Taking early steps in fiscal consolidation would also hedge public debt from future calls on the budget that may arise from the contingent and implicit liabilities of the public sector. Contingent and implicit liabilities pose fiscal risks, as they may burden the

budget directly (when cash payments are required), or indirectly—through higher interest payments, when they lead to an increase in public debt. Contingent and implicit liabilities arise from a variety of sources (see also table in Annex 2): (i) The non-provisioned non-performing loans accumulated by public banks. Non performing loans would be likely to spike in a low-case scenario, owing to the growing exposure of banks to the tourism industry and to exporting sectors. (ii) The unfunded liabilities of the pay-as-you-go pension system; (iii) Guarantees for credits extended by financial institutions to borrowers (such as those provided by the “Fonds National de Garantie” or the FOPRODI); (iv) guarantees on the foreign-currency debt issued by public enterprises; (v) foreign exchange guarantees issued by the “Fonds de péréquation des changes”; (vi) Performance guarantees to private providers of infrastructure services, through BOT or BLT agreements, may also give rise to contingent liabilities in the future.

24. In a low-case scenario, contingent liabilities may be boosted by the foreign exchange guaranties issued by the government. Foreign exchange guaranties may generate fresh debt if the policy adjustment to persistent external shocks were to partly rely on exchange rate adjustment. This would be the case with the non-provisioned foreign exchange guaranties provided by the government to external borrowing by public non financial enterprises. But funded guarantee schemes—such as the “Fonds de péréquation des changes”, which issues foreign exchange guaranties for loans by local or foreign banks operating in Tunisia—may also generate losses.⁷ The Fund’s liabilities increased by about 40 percent in 2002, reaching TD 1,4 billion (5 percent of GDP). Moreover, there is a significant currency mismatch in the Fund’s portfolio of guaranties: about one-third of its liabilities is in Yen, 16 percent in dollar and the rest in Euro, while Tunisia’s export earnings are mainly in Euro. Reflecting the Dinar’s depreciation, outflows have outpaced the Fund’s revenues every year since 2000, and the Fund’s reserves have been almost halved since 1999, amounting to only 5 percent of outstanding liabilities in October 2002. Using market-based instruments to hedge foreign exchange risk would be a superior option, despite the possibly higher cost for the borrowers. This would also promote the development of better foreign exchange risk management skills and credit culture in a context of progressive opening up of the capital account.

25. In the absence of reform, the pension system may soon become a source of implicit liabilities for the government. Because of Tunisia’s relatively young and fast growing population, the fundamentals of the pay-as-you-go pension system will not become critically unfavorable for some time to go. The dependency ratio for those aged more than 60 is projected to remain constant to around 17 percent of the working-age population until 2010, and then start rising to reach some 27 percent by 2030—still below the strongly unfavorable trends projected for the rapidly ageing societies in the EU. However, owing to the generosity of the current pension system, financial liabilities are projected to accumulate very soon (Ben Braham, 2002). Contribution periods remain relatively short and replacement ratios are high, close to 80 percent of the last salary for

⁷ The “Fonds de péréquation des changes” is funded by commissions on the guaranties issued to the beneficiary financial institutions; foreign exchange gains upon loan reimbursement; a 0.5 percent commission on bank loans included in lending interest rates; a participation in the net revenue of the Central Bank of Tunisia.

both the public pensions fund (CNRPS) and the civilian pensions fund (CNSS). A typical employee may expect to recover during retirement an amount of pensions about 4.5 times larger than the amount of his contributions in the case of the CNRPS, and 5.5 times larger in the case of the CNSS. The urgency of reform is, however, greater for the CNRPS, because this fund (covering about 30 percent of social security contributors) is projected to be in deficit of more than DT 800 million by 2012—with accumulated liabilities reaching about DT 3.5 billion by then. This financing gap could be covered only partly by the (declining) surplus of the CNSS. On current policies, the liabilities of the overall pension system by 2012 are estimated at about DT 1.5 billion (5 percent of GDP).

II. Debt and risk management strategy

26. The first Chapter provided a broad sustainability framework for Tunisia's public debt management. This Chapter focuses on Tunisia's debt strategy, evaluating it from two perspectives – macro/fiscal policy perspective and portfolio management perspective. The macro/fiscal policy perspective looks at **what** the government debt management should do, defining its scope and sustainability goals; the portfolio management perspective looks at **how** to achieve these goals. Both perspectives are vital, and both should be pursued concurrently. The chapter argues that on both counts Tunisia's debt strategy can be enhanced. To achieve this, senior-level decisions are needed to reshape the formulation and the implementation mechanisms of the sovereign debt strategy.

II.1 Objectives of Government Debt Management

27. *The central objective of public debt management is to finance the budget at the lowest possible cost with the acceptable level of risk over long-term. Both* goals (cost and risk) are equally important, and the attainment of one at the expense of the other is a weakness of a debt strategy. The right cost/risk balance is achievable only over the medium-to-long term horizon. Otherwise, the choice of borrowing instruments may be skewed towards shorter maturities, which do have lower costs, but carry higher refinancing risk for the borrower. In the past decade, many governments adopted debt management practices from the corporate world, and sought increasingly standardized and quantitative solutions to the cost/risk dilemma.. Of course, this standardization of risk control tools does not mean the standardization of debt strategies themselves, which remain very country-specific.

28. *No single strategy can deliver the correct cost/risk balance for every country under any circumstances.* Substantial differences remain even within one sovereign creditworthiness rank. These can be traced to the constraints imposed by a country's macroeconomic, fiscal and monetary policies, maturity of its domestic financial markets, its access to international markets and participation in the global division of labor. Nevertheless, all good debt management practices abide by the following key principles:

- The public debt manager's risk tolerance should be low, mirroring risk tolerance of the taxpayers. The debt manager handles public funds, and may not gamble with them;
- Consequently, the debt manager would be ill advised to take positions against the market, or to favor seemingly cost-saving short-term debt instruments, as these may turn out to be excessively risky over medium-term;
- Equally, government debt manager should not attempt to eliminate risk from the debt portfolio completely, as this would inevitably be very costly, if, indeed, possible at all.

29. ***Over the past decade, Tunisia had earned its reputation of a cautious and responsible sovereign borrower, which already follows many of the good international practices in sovereign debt management.*** This has paid off: the country's sovereign rating has been repeatedly upgraded, and now stands at BBB - one of the not so numerous investment grade ratings in MENA. Tunisia's financing program is anchored in the Five-Year Development Plan and is further detailed in annexes to its annual budgets. From the macro/fiscal sustainability perspective, Tunisia follows a simple but efficient principle, keeping the total amount of sovereign debt under 60-65% of its GDP. Its liquidity position has been comfortable during most of the past decade, with debt service to exports ratio staying below 20 percent, and in recent years hovering around 15 percent. This is effected with the macro/fiscal policy tools, rather than with the debt portfolio management tools, the latter being used only on selective risks and infrequently, which is also a good practice.

30. ***However, the strengthening of sovereign debt management practices is far from complete.*** In order to preserve and further strengthen Tunisia's sovereign rating reforms in this field of public policy must continue, embracing all three key dimensions –policy, institutions and market infrastructure. Outstanding issues remain with regards to the strategic vision and the scope of Tunisia's public debt management; the measurement and disclosure of risk should be upgraded; and debt management institutions and domestic market infrastructure should be strengthened further. Box II-1 takes stock of Tunisia's current position, benchmarking its debt management practices against the Guidelines for Public Debt Management developed by the World Bank and IMF, and highlighting the major tasks that lie ahead.

31. ***The efficiency of Tunisia's public debt management can be enhanced on both counts – fiscal framework and portfolio management:***

- Although the medium-term *fiscal framework* exists, it is too rigid to support active debt management. The central goal of public debt management currently is to control the overall debt burden; in this context, important medium term considerations may get neglected. Efficient public debt management should rely upon more flexible updates of fiscal scenarios (at least on an annual, best if on quarterly basis), to reflect the changing composition of debt portfolio risks. Furthermore, the anchoring of debt management in the fiscal policy is incomplete, as the fiscal framework covers the budgetary sphere *stricto sensu*, while the risks coming from the broader public sector are not factored into the borrowing decisions. Contractual guarantees and other explicit contingent liabilities must be viewed as part of the government liability portfolio, and risks coming from them should be factored into the overall public debt strategy;
- On the *portfolio management* count, while the Government is aware of specific risks present in its debt portfolio, it has neither a full picture of portfolio risks, not a comprehensive approach to control them. Tunisia is, and will remain the price-taker in the international markets, due to the small size of its borrowing program, and the structural nature of the current account deficit, which makes the country vulnerable to external shocks. Consequently, debt portfolio management must quickly assess and flexibly respond to the changing risk composition.

Furthermore, an integrated vision of public liabilities as one portfolio is absent, which may distort decisions with regard to handling risks of individual classes of liabilities. For example, *Fonds de péréquation des changes* continues to extend coverage for Yen-denominated contracts, despite the fact that on the side of direct debt Yen risks are being swapped away.

Box II-1. Benchmark Tunisia: Progress Towards Sound Debt Management Practice

COMPONENT OF SOUND PRACTICE	STATUS QUO AND OUTLOOK FOR TUNISIA
<ul style="list-style-type: none"> Ensure that the government's financing and payment obligations are met at the lowest possible cost, taking into account the cost-risk tradeoff. 	Tangible progress, further improvements are possible
<ul style="list-style-type: none"> Clearly define and disclose the objectives of the debt strategy and measures of cost and risk. 	To be done
<ul style="list-style-type: none"> Unambiguous delineation of responsibilities and close coordination among the agencies involved (e.g., Central Bank and Ministry of Finance). 	Clearer delineation of mandates and stronger interagency cooperation are needed
<ul style="list-style-type: none"> Regular publication of stock and profile of debt and financial assets including their currency, maturity and interest structure. 	Impressive record to date, but further progress is needed, with greater attention to portfolio structure
<ul style="list-style-type: none"> Develop an accurate, comprehensive and timely management information system. 	Management information should be improved with risk analysis and scenario simulations
<ul style="list-style-type: none"> Establish code of conduct and conflict of interest guidelines for staff in the management of their financial affairs. 	To be done as part of the broader institutional reform agenda
<ul style="list-style-type: none"> Take into account the risks associated with foreign-currency and short-term or floating rate debt. 	Successful handling of some risks; more systematic approach needed
<ul style="list-style-type: none"> Conduct regular stress tests of the debt portfolio on the basis of the economic and financial shocks to which the government and the country are susceptible. 	Some analysis under medium-term macroeconomic scenarios; portfolio scenarios to be formulated
<ul style="list-style-type: none"> Borrowing decisions should take into account the impact of contingent liabilities on the government's financial position and its overall liquidity position. 	Limited analysis; consistent policy and control framework absent
<ul style="list-style-type: none"> Operations should be consistent with the development of an efficient government securities market. 	Limited progress to date, substantially more can be done
<ul style="list-style-type: none"> Achieve a broader investor base with due regard to cost and risk and treat investors equitably. 	Greater progress on external than on domestic markets; further efforts needed
<ul style="list-style-type: none"> Use market-based mechanisms, including competitive auctions and ensure transparency and predictability in the primary market. 	Commendable initial steps, more to be done
<ul style="list-style-type: none"> Promote the development of secondary markets. 	Major near-term agenda
<ul style="list-style-type: none"> Ensure adequate controls regarding stock of debt and strengthen documentation. 	Strong controls and documentation overall, further progress needed

32. Most importantly, specific risks are not quantified and not managed as one portfolio. The lack of an articulated risk management approach is only partly due to Tunisia's structural constraints (insufficient flexibility in its access to external markets and underdeveloped domestic markets). This deficiency has more to do with the fragmentation of the public debt management function (see Section Five). Only some elements of a guarantee management strategy exist, and these are not integrated with the management of direct government obligations; the guarantee risk is perceived as essentially project risk. Similarly, there exist no specific procedures to control the risk of the onlending operations. The quality of information available to debt managers and decision-makers can also be improved.

33. Recommendation:

- In order to increase the efficiency of public debt management, formulate an **integrated** risk management strategy, based on the rolling medium-term fiscal framework, and considering all risks that affect the government's liabilities and related assets (e.g. onlending) as one portfolio.

II.2 Scope of a Public Debt Management Strategy

34. The scope of public debt management varies from country to country, but the overall trend of the past decades has been to broaden it. In traditional practice, governments only cared about their direct debt obligations. However, the history of financial crises demonstrates that a government's debt position is vulnerable to financial situation in the broader public sector. Indeed, the financial performance of different parts of the public sector is intricately connected - both via budgetary and off-budget mechanisms. A recent study by Kharas and Mishra (2001) suggests that actuarial fiscal deficit⁸ is a much better explanatory variable for the accumulation of public debt and the incidence of currency crises, than the conventional budget deficit. While formulating its debt management strategy, governments should not ignore financial operations of other parts of the public sector – local authorities, social security system, SOEs, and state-owned financial institutions, even if these are not covered by state guarantees. Active debt management should take into account intricate connections between different parts of the public sector. An increasing number of governments view their debt strategy in this broader perspective - as a fiscal risk mitigation tool, redefining the task of government debt manager as public liability management.

35. Poor management of contingent liabilities has led to significant losses for governments, and many now seek to manage them in a more prudent and systematic fashion. Some governments have given their debt management units an important role in managing contingent liability risks, often in close coordination with the Budget Office. In some other cases, Ministries of Finance have enhanced their monitoring and analysis of potential fiscal risks arising from financial operations of local governments, SOEs, other parts of the public sector and the broader economy. The management of contingent liabilities requires the adoption of more sophisticated tools not only by debt managers,

⁸ Actuarial deficit is defined as the sum of conventional budgetary deficit and hidden deficits of the broader public sector. For further detail see Annex 2.

but by the Budget Office, and other government agencies. For example, proper management of the costs of a guarantee is impossible under cash-based budgeting, while accrual budgeting and accounting allow to compare a contingent obligation with a direct one. These tools allow the Ministry of Finance to make an informed choice across the whole spectrum of financial instruments, and to set up appropriate provisioning levels for both direct and contingent obligation of the state.

36. *There exist, however, certain dangers in extending the scope of public debt management.* Both public sector borrowers and their creditors may interpret this behavior as an implicit government guarantee, and may be tempted to practice adverse selection, favoring more risk-laden operations and weaker prudential practices. It is never possible to eliminate moral hazard altogether, but good practices contain it with clear separation (via legal, operational and informational means) of the government's own fiduciary responsibilities and those of the broader public sector. For example, there may be a provision in the law that the central government is not liable for the default of any other public sector entity with a separate balance sheet, unless the debt in question is covered by a sovereign guarantee. In reality such "Chinese wall provision" is never fully enforceable, due to the ownership and control relationships within the public sector. The second best solution is for the government to have a comprehensive ex ante monitoring system, comprising all forms of public sector debt.

37. *Public debt management could consist of three "concentric" activities:* active management of the government contractual obligations proper (comprising direct debt and guarantees); government authorization and monitoring regime for other types of public sector liabilities not covered by the sovereign guarantee; and primarily analytical follow-up of the implicit liabilities of the government. This concentric strategy can be illustrated by the fiscal risk matrix presented in Annex 2, with items to be under direct management regime highlighted with blue, items for which an authorization regime is more suitable highlighted with yellow, while other items mostly require good monitoring and analysis. Comprehensive control of fiscal risks present in all three concentric areas can be done by the government as a whole, with the debt management office taking the lead on the inner circle of direct government debt and guarantees, and coordinating closely with other parts of the government responsible for fiscal and macroeconomic policy, and with the Central Bank, in order to better delineate the goals of government debt management and monetary policy.

38. *For Tunisia, like for other countries which consider gradually liberalizing the capital account, another relevant question is the impact of private sector borrowing on the government's creditworthiness.* Once the cross-border movement of capital is liberalized, external debt of Tunisian private sector may rise significantly. While it is not advisable for the Government to manage liabilities beyond its own balance sheet, close monitoring and analysis of non-guaranteed external debt would be needed, both on the macro- and micro level. On the macro level, since private borrowing operations may have a lasting impact on the balance of payments, debt sustainability scenarios conducted by the Treasury should include private non-guaranteed debt. This means that good detailed information on this class of external debt should be available to the CBT and the Government of Tunisia. On the micro level, any large borrowing operation of a private sector entity is likely to affect the government's own access to external markets, since

any unusual bunching of issues from one country will inevitably push up the cost of borrowed funds for everyone, including the sovereign. Even top-rated sovereign borrowers such as Denmark reserve the right to **advise** its private sector borrowers on the timing of their debt placements. Finally, since investors tend to perceive any government monitoring and analysis of private debt as a sign of implicit guarantee, the Government and the CBT must practice a firm policy of no bailouts to troubled private borrowers. Moral hazard and fiscal costs are minimized only if the boundaries of government responsibility are clearly marked and do not extend beyond its direct debt and guarantees.

39. Tunisia's public debt management strategy could benefit from broadening its scope and from making its formulation and implementation more cohesive. So far, the debt management's scope is largely confined to direct debt, whose monitoring is comprehensive, but is done only on nominal basis, with no market valuation attempted. Precise valuation of direct debt portfolio is impeded by the delays with which loan disbursements are reflected in the central debt database (SIADE). Likewise, the probabilistic analysis of guarantee portfolio is absent, which prevents extending the scope of public debt management to this class of public liabilities. No attempts are made to value and manage risks of other off-budget liabilities, such as those generated by social protection and the pension system and the broader public sector.

40. Recommendation:

- Focus the government debt strategy on the contractual obligations of the government, but anchor it in a comprehensive view of fiscal risks arising from the public broad sector and the economy as a whole.

II.3 Strategic Benchmarks for Public Debt Management

41. Balancing cost containment with portfolio risk mitigation points to the need for strategic benchmarks for the public debt portfolio. In practical terms, benchmarks can be defined as market-neutral compositions of debt portfolio, which allow the debt manager to avoid excessive risk. Market neutrality is the key feature of a government debt benchmark. It is unrealistic to assume that government debt managers possess superior information or judgment compared to that of other market participants and/or able to transact more efficiently than the latter, which is required for being able to lower borrowing costs without incurring more risk.

42. If the government is viewed as manipulating the market, trust will evaporate, and investors will not be willing to reward the issuer by accepting lower yields. Even on the domestic market, where a sovereign is often the largest issuer, and the regulator of the financial system, an opportunistic stance may undermine the strategic priorities of developing the market and the sovereign issuer's investor base. The markets' perception would become even more risky if interest rate or currency positions taken by a government were to signal its view on the future direction of interest rates or the exchange rate. An opportunistic public debt management may thus severely undermine the implementation of monetary policy. In foreign markets, government debt managers have no "edge" on other market participants. In recent years, several governments and/or central banks (e.g. Thailand) have lost billions of dollars in the derivatives market. Among the OECD countries, *experiences* are more diverse, with some actively managing

their foreign currency debt in order to generate savings, or to allow their debt managers to accumulate greater market knowledge; other governments refrain wholly from tactical trading. Taking a position on the future market movement contradicts the fundamental principle that the government debt manager's market stance should be risk-averse - aligned with the expectations of the taxpayers.⁹ *Among the minority of OECD sovereigns undertaking active debt management, the positions taken are controlled by strict limits and represent a small proportion of the total debt portfolio.*

43. An active debt management stance should not be confused with high volume of transactions which constantly “chase” the benchmark. Active debt management calls primarily for a comprehensive, strategic vision of risk faced by a sovereign borrower. Periodic rebalancing of the portfolio is advisable only to the extent it serves this strategic vision. The more aggressive the portfolio “churning” aimed at risk-mitigation is, the higher is its cost. Finally, data required to measure the effectiveness of a proactive operational stance may be fragmented, and/or unavailable, making it difficult to assess the true cost of frequent portfolio rebalancing. Recently, some of the most proactive debt managers in the OECD, such as the Swedish SNDO and Irish NTMA heralded a “return to the basics” – to the strategic dimension of debt management. Indeed, a government may gain more (in terms of reducing the long-term risks of its debt portfolio) from further strengthening the link of debt management with its fiscal policy, thus ensuring debt sustainability. *For a small sovereign issuer such as Tunisia, the challenge is not to choose between merely taking the market's terms and aggressive trading, but to define a set of strategic market-neutral benchmarks which will help reducing its overall risk exposure .*

44. The functions of a debt benchmark include: incorporation of strategic objectives, limitation of risk, and measurement of performance. International best practice stresses five main principles for building portfolio benchmarks:

- **Robustness:** Benchmarks should be tested and be efficient through a large number of market scenarios, with clear and narrow limits for opportunistic market operations. Benchmarks should have as little as possible reliance on assumptions about the future economic and financial environment. It is wrong when a certain currency mix of the foreign debt portfolio is based on certain assumptions about future changes in the value of different currencies or the proportion of floating rate debt is changed based on assumptions about future yield movements;
- **Long-term horizon:** Benchmarks should be defined for the long run, preferably over the lifetime of government debt. Decisions targeting short-term portfolio gains may increase the risks and costs in the long run.
- **Efficiency:** provide the lowest cost for the chosen level of risk effectively guide decision-making in respect of tradeoffs between expected cost and risks, taking into account the government's risk preferences and important macroeconomic policy objectives;

⁹ The World Bank/IMF *Guidelines* stress that the “debt managers who seek to manage actively the debt portfolio to profit from expectations of movements in interest rates and exchange rate...should be aware of the risks involved and accountable for their actions. These risks include possible financial losses, as well as conflicts of interest, and adverse signaling with respect to monetary and fiscal policies.”

- *Transparency*: - understood and followed by the common sense. and clearly specify the risk parameters within which the portfolio should lie.
- *Feasibility/realism*: the benchmark should reflect the structural and institutional constraints of a sovereign issuer - the maturity of domestic debt markets, capacity of the Debt Office, structure of the country's financial flows, and relative role of and compatibility between the domestic and external capital markets. These factors define what is feasible when the benchmark is set up; it should not be sought for the sake of doing it.

45. In recent years, several simple methodologies were developed that simplified the construction of market-neutral performance benchmarks . Two examples are Cost-at-Risk, formulated by the Danish National Bank, described in Box II-2, and Budget-at-Risk, used by the Italian Ministry of Finance.

Box II-2. Cost-at-Risk and Budget-at-Risk

In Denmark, Government Debt Management applies a Cost-at-Risk (CaR) model, which is a stochastic simulation model for the analysis of trade-off between expected costs and risk in government debt portfolio. In methodological terms, CaR is related to VaR, a risk-management instrument which is widely used by corporate portfolio managers, and which expresses the maximum loss in a portfolio's market value with a given probability over a given horizon. CaR expresses the maximum increase in the annual interest payments on the debt with a given probability in the medium and long term. CaR entails quantification of the risk, depending on the probability distribution of the future market development. The purpose of the CaR analysis is to assess the differences between various strategies in the longer term, i.e. the strategies' average characteristics. The risk related to short-term fluctuations in market interest rates is countered by e.g. spreading borrowing across the year. This reduces the government's exposure to short-term volatility.

In CaR model, actual quantification of the risk requires assignment of different probabilities to the cost scenarios, allowing to quantify the trade-off between costs and risk. The basis is information on the existing debt portfolio (outstanding amount of all government securities and swaps) and the government's expected future budget surplus. Another input into the model concerns the strategic focus of the government debt policy, including the distribution of future borrowing on various maturity segments, the frequency at which new securities series are opened, and the volume of future swaps and buy-backs of government securities. This information gives the government's current borrowing requirement, the distribution of new borrowing on various securities and the government's interest-rate exposure. New redemptions and interest payments are subsequently included in the future borrowing requirement. The interest costs are calculated on the basis of simulated zero- coupon-yield curves. The yield curves are applied in the model to determine coupon rates for new loans, the swap interest rates, and prices for bonds subject to buy-back. The calculations are made for 2,500 scenarios. Each describes a particular development in interest rates on a quarterly basis over 10 years, and thereby a specific scenario for the development in the interest costs on the debt. On the basis of the 2,500 scenarios, a probability distribution for the annual interest costs during the simulated period can be determined. The expected future annual costs of a given strategy are calculated as the mean value of the calculated costs, The risk is summarized in two measures: absolute CaR and relative CaR. Absolute CaR for a given year states the maximum costs with a probability of 95 per cent. Relative CaR is the difference between absolute CaR and the mean value. Relative CaR is thus a measure of the maximum increase in costs from the mean value for a given year, with a probability of 95 per cent.

Source: Danish National Bank (2003)

II.4 Risks in Tunisia's Debt Portfolio

46. Rollover (refinancing) risk remains the key concern in emerging markets. While all types of risks are present of all debt management environments, a fundamental difference between emerging and mature markets is that in emerging markets the rollover risk

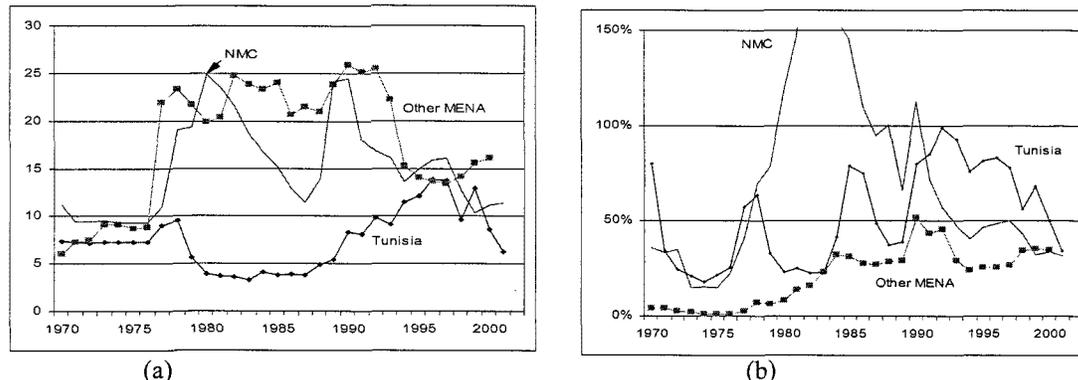
dwarfs all other types of risk. Rollover risk defines an emerging market, which is classified as such because it does not possess sufficient depth and flexibility, and thus does not offer the borrower the ease of refinancing. Volatility is typically higher in an emerging market, which further constrains a government in its refinancing options. Rollover risk may cause a dramatic increase of interest cost to the budget, and in the worst-case scenario it can lead to sovereign default. Other types of risk, particularly currency risk, often act in concert with rollover risk to precipitate or exacerbate a crisis. Measures aimed at increasing the average maturity of the public debt portfolio and avoiding bunching of maturities (using buy-backs and exchanges) decrease the rollover risk; however, in recommending such measures, tradeoffs between different risks much be carefully considered. For example, reducing rollover risk by using indexed instruments can significantly increase market risk, and worsen, not buttress the debt sustainability.

47. Tunisia is perceived by investors as one of the safer emerging market borrowers, but her rollover risk is still tangible. For external debt, the simplest measure of rollover risk – the share of short term debt in the total debt portfolio - confirms an earlier observation that government debt strategy has been very prudent: this indicator peaked in 1996-1999, and is now well below 15 percent¹⁰. Except for short periods the share of short term debt in total debt was substantially lower than MENA average (Figure I-1.a). However, Figure I-1.b makes also clear that Tunisia has little choice but to be prudent: due to its current account vulnerability, its ratio of short term debt to international reserves is, on average, substantially higher than average for other MENA (30-year averages are: 52 percent for Tunisia but 21 percent for other MENA)—although this ratio has declined steadily during the 1990s.¹¹ Tunisia is less well-equipped to cope with short-term external shocks and Figure I-1.b also reveals a **cyclical** nature of short term debt indicator if measured as a percentage of foreign exchange reserves. This suggests that rollover risk is still very much present, but that it is primarily related to weak current account position and not to financial difficulties as such.

¹⁰ This analysis focuses only on government and government-guaranteed debt. For short term debt, a DRS definition is used - debt with an original maturity of less than one year. This definition may understate the rollover risk, since it does not include longer-term debt which fully matures in the coming year. World Bank DRS data. Other Bank and Fund sources report 1996-2001 levels that are 2-3 percentage points higher than reported by DRS, [possibly since the latter numbers include maturing longer-term debt.

¹¹ The two comparator groups are: *Other MENA* - Algeria, Djibouti, Egypt, Iran, Jordan, Lebanon, Morocco, Oman, Syria, and Yemen, and *Non-MENA Countries* (NMC) - Chile, Dominican Republic, Hungary, Malaysia, Pakistan, Philippines and Romania. The composition of groups is discussed in Annex 4.

Figure II-1. Short-term debt as percent of (a) total external debt and (b) foreign reserves



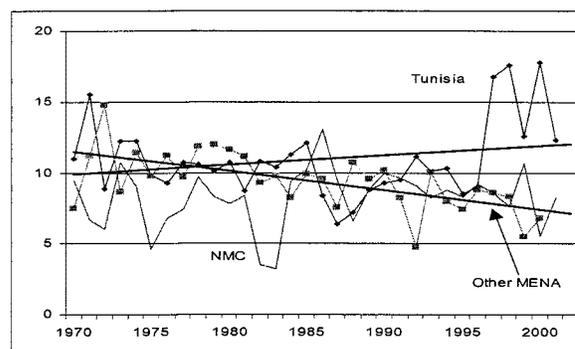
Notes: indicators for both groups are simple averages.

Source: The Treasury of Tunisia, World Bank Debtor Reporting System (DRS).

48. **Average maturity of Tunisian external debt has remained broadly stable over the past 20 years.** It increased by less than one year in the 1990s compared to the 1980s (from 16 years to 16.8 years), and in both decades remained close to MENA average. This indicates strong control over the external rollover risk. The success of Tunisia's prudent approach to debt management is most vividly demonstrated by the extension of average maturities it commanded on the private markets: while for other MENA countries these maturities have declined (from 9.6 years in 1980ies to just under 8 years in the 1990ies, strengthening creditworthiness helped Tunisia to extend the maturities of its long-term debt from 9.3 to 12.1 years over the same period (see trendlines in Figure II-2).

49. **Another measure of rollover risk is the diversification of sources of finance.** All else equal, the more these sources are diverse, the less vulnerable a country would be. **Table II-1** suggests that overall, Tunisia was less successful in diversifying its rollover risk than some other MENA countries. The share of private creditors in Tunisia's debt has fallen deeper in 1990s than in the rest of the region; over time, Tunisia has become more, not less dependent on a small group of official creditors. Source diversification declined in non MENA group as well, but from much more comfortable levels. The only type of instruments, for which Tunisia's efforts to promote its sovereign risk have paid off were international bonds. On the contrary, debt to commercial banks ended the past decade sharply lower, which is generally believed to be a sensible rollover strategy. Tunisia is one of the few MENA countries, which had successfully tapped the international bond markets over the past decade. Still, the share of bonds in Tunisia's total external debt is well below the level achieved by non MENA countries.

Figure II-2. Average Maturity of Debt from Private Sources



Note: for definitions of groups see Annex 4.

Source: The Treasury of Tunisia, World Bank Debtor Reporting System (DRS).

Table II-1. Structure of external debt outstanding by creditor

	Tunisia		Other MENA		NMC	
	average 1981-1990	average 1991-2000	Average 1991-2000	average 1981-1990	average 1981-1990	average 1991-2000
Official creditors	69%	78%	62%	73%	43%	59%
Private creditors	31%	22%	38%	27%	57%	41%
Of which: Bonds	1%	7%	1%	2%	8%	24%
Banks	10%	5%	13%	10%	41%	13%
Other private	20%	10%	22%	14%	8%	4%

Source: The Treasury of Tunisia, World Bank Debtor Reporting System (DRS).

50. **Domestic rollover risk is higher, despite the fact that demand from Tunisian investors, primarily commercial banks is stable.** The average maturity of domestic debt remains short - about 41 percent of total outstanding has remaining maturity of less than one year; new issuance is skewed towards shorter maturities even more (*Figure III-1*). This suggests a considerable exposure to rollover risk. The only way to lower it lies in lengthening maturities of the traditional fixed rate nominal bonds in the domestic market¹². On the contrary, mitigating domestic rollover risk by switching to external funding sources (which arguably offer much longer maturities) would be merely a shift from rollover risk to currency risk, running counter the strategic vision of Tunisian Government.

51. **Tunisia still faces considerable exchange rate risk, despite the relative stability of Dinar exchange rate**¹³. Characteristically, even much more sophisticated OECD economies always viewed currency risk exposure as very undesirable, and worked to

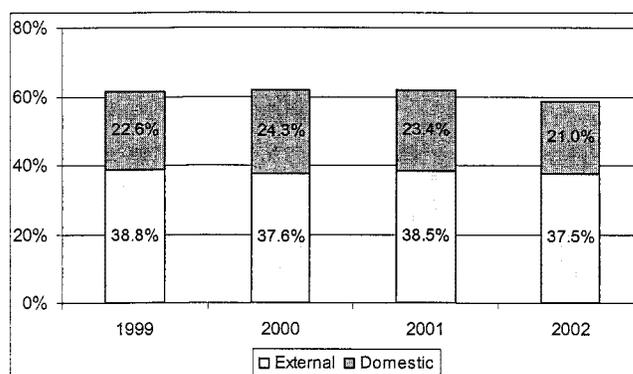
¹² This can only be a long-term goal. Over shorter time horizon, in countries where investors have not been willing to invest in longer-dated instruments, the authorities have used indexed instruments. Clearly this exchanges one type of risk (rollover) for another (market), but in some circumstances may be a valid tradeoff. Chapter 3 discusses issues in deepening the domestic market in greater detail.

¹³ Reflecting the policy of constant real effective exchange rate followed by the Central Bank, average fluctuations of real effective exchange rate in 1996-2001 averaged only 1 percent over each 12 month period. Among the key factors that threaten the Dinar's exchange rate, Tunisia's persistent current account deficit remains the most important. On the other hand, stable debt levels and low inflation help stabilize the currency.

substitute external debt with domestic fixed income instruments. Tunisia, whose economy and financial system are more vulnerable to external shocks, is also taking this route, but until the substitution is complete, Tunisia will continue to face exchange rate risk in two ways: (a) possible change in the value of the foreign currency debt due to the fluctuations of the exchange rate of the domestic currency; and (b) cross currency risk reflecting the risk exposure due to the currency composition of the foreign debt portfolio.

52. The government of Tunisia is fully aware of significant exchange rate risk present in its portfolio and takes mitigation measures. The main option to reduce this risk is by deepening the domestic debt market. In this policy, Tunisia's conduct is similar to other developed and middle-income countries, which are phasing out their external debt portfolios; there is a widening realization that long-term funding costs are always lower in the domestic market. Recent experience of less-developed EU member countries (Ireland, Portugal, and even Spain), which have launched specific market-development programs in the run-up to the EU accession, could be quite useful for Tunisia. More mature OECD economies, which faced balance of payments problems in the 1990s (e.g. United Kingdom and Sweden), coped with them partly by enhancing their domestic debt issuance programs.

Figure II-3. Structure of Tunisia's sovereign debt by creditor, percent of GDP



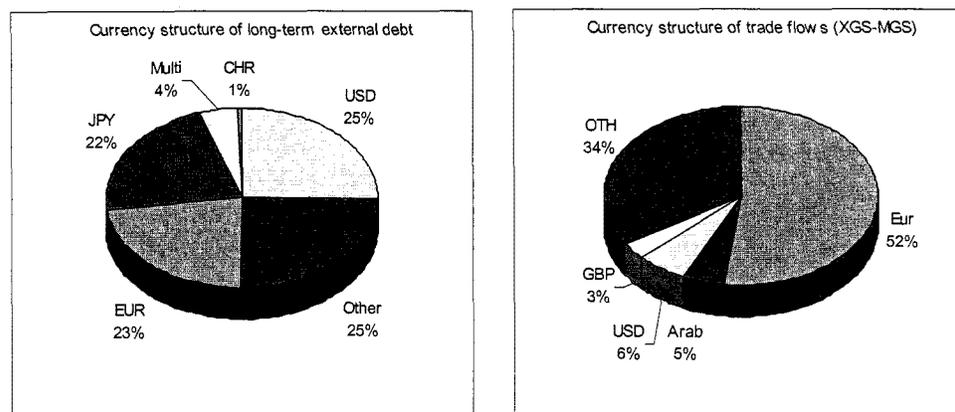
Note: consolidated central government debt only.

Source: The Treasury of Tunisia, World Bank staff estimates.

53. Due to the limited investor demand in the domestic capital market, financing of Tunisian public debt is still dependent on international borrowing, which remains at about 2/3 of the total public debt portfolio. While the cost of these instruments may seem lower than the cost the Treasury has to pay for domestic currency borrowings, external market access for Tunisia remains less than certain. The risk profile of foreign borrowing instruments is difficult to determine properly, their costs become evident only in the medium term, and the Treasury's freedom of maneuver in covering the exchange rate risk is limited. One way to assess the risk of foreign borrowing would be to undertake devaluation stress tests on the debt sustainability scenarios prepared by the Government, be it for the next borrowing operation or for the five-year plan. Since the domestic swap market is non-existent the only way to manage this exposure is by changing the issuance structure (i.e. issue more domestic currency denominated debt).

54. **Cross-Currency Risk appears to be significant.** The natural currency target for Tunisia is Euro, which predominates in the structure of the country's net exports. This Cross-currency risk is well understood by the Government and the CBT: the Yen component is routinely swapped away by the CBT. Thus, the main cross-currency risk is coming from the relative shares of two other large components – USD and Euro. For Tunisia, which receives only small US\$-denominated current inflows, the present share of US\$-denominated debt appears excessive (Figure II-4). Apart from these three major currencies, Tunisia has loans outstanding in other currencies and currency baskets (e.g. SDR).¹⁴ This represents approximately 29 percent of the total external portfolio, and adversely affect the size of the public debt. Of course, “other” currencies. can also be swapped, but the size of such operations would not necessarily deliver economies of scale. The residual cross-currency risk remains substantial. Such cost considerations should be more explicitly factored into Tunisia's debt strategy. Currently, the cost of swapping Yen-denominated debt is simply absorbed as inevitable, and is not assessed as part of the total cost of the portfolio.

Figure II-4. Currency composition of Tunisia's long-term external debt and trade flows



Note: currency structure of debt shown **before** the Yen swaps.
Source: The Treasury of Tunisia, World Bank DRS.

55. **Currency risk can be mitigated both by natural hedges and by specific portfolio rebalancing actions.**¹⁵ Since the natural hedges do not entail any costs, this is a highly preferable way for the government to cover a given risk. For example, in other MENA countries, large US\$-denominated debt (Table II-2) better matches their US\$-denominated foreign trade because contracts in oil and oil products are denominated in dollars. In Tunisia, however, net exports as a natural hedge may be only of limited use,

¹⁴ Mostly debt to the World Bank and the IMF.

¹⁵ A natural hedge is a situation when a composition of a country's foreign exchange inflows or stocks or reserves are close to the composition of currency structure of its debt service payments and other outflows, or , and no special actions such as currency swaps are required to limit the cross-currency risk. For oil-exporting MENA countries, US\$-denominated oil exports provide a natural hedge against risks from US\$ component of their external debt .

due to the persistent current account deficit: full advantage of natural hedge can be realized only in the situation of a current account surplus or equilibrium.¹⁶

Table II-2. Currency composition of long-term external debt, end of 2000

	Tunisia	Other MENA	Non-MENA
U.S. Dollar	30.4	53.2	53.8
Other currencies	24.6	19.3	6.6
Yen	21.6	7.8	17.9
EURO	16.3	10.8	8.1
Multiple currencies	5.8	5.5	13.6
Swiss Franc	0.6	1.1	0.3
Pound Sterling	0.5	1.2	0.3
SDR	0.2	1.1	0.6

Notes: Only public and publicly guaranteed debt. For definitions of groups see Appendix 4. Currency structure shown before swap operations. Figures for comparator groups are non-weighted averages. Figures may not necessarily add to 100 due to rounding.

Source: World Bank DRS.

56. In March 2003, Tunisia broke new ground in external debt management, becoming the first member country to sign a Master Derivatives Agreement with the World Bank.

The Agreement will allow the Government to use a range of hedging products linked to existing World Bank loans and will assist Tunisia in reducing its currency and interest rate risks via a range of hedging products offered by the World Bank, including currency swaps, interest rate swaps, caps and collars and, on a case by case basis, commodity swaps. The hedging products offered by the World Bank allow borrowers to use standard market techniques to transform the risk characteristics of their outstanding World Bank loans. In providing these financial products, the World Bank stands between market institutions and its borrowers, entering into separate financial contracts with each of them. Tunisia therefore would benefit from financial terms that reflect the Bank's AAA credit rating.

57. To help define an optimal proportion between foreign and domestic currency debt, Tunisian Treasury should formulate a currency benchmark.

This would reflect the Treasury's capacity to carry exchange rate risk, but also taking into consideration the attractive characteristics of the foreign currency portfolio (often longer maturity, lower interest level, and much broader investor base). Tunisia's investment rating makes the issuance of large, medium- and long-term bonds in the international market an attractive alternative to the domestic issuance even if the issuer has to pay a significant premium over the reference government bonds and, of course, takes over the foreign exchange risk from the investor. By definition, all foreign currency related issues should be taken into account in this benchmark. Including SDR denominated loans there was significant net

¹⁶ The actual potential for natural hedge may be somewhat greater than suggested by Figure II-4, which demonstrates a sharp imbalance between currency structure of debt and trade flows, since the full current account deficit is lower, as a proportion of GDP than the trade balance, due to large net inflows on tourism and workers remittances, which are denominated almost exclusively in Euro. The analysis of another natural hedge – Tunisia's foreign exchange reserves was impeded by the lack of data on their currency composition.

external financing in both 2001 and 2002 leading to an increase of share of the foreign currency debt (to about 60% of the total).

58. The second benchmark concerning foreign currencies should address the cross currency risk in the foreign portfolio. Tunisia's foreign currency debt is primarily serviced by the foreign currency cash flows generated by exports, remittances, tourism income and the financial income earned by foreign currency reserves denominated mainly in USD and Euro. Since the Yen risk is already swapped away, the main value of the benchmark would be in gauging the risk coming from other major currencies - USD and Euro, and from the smaller currency components. It is equally important to examine the exchange risk inherent in SDR-denominated and other currency basket loans.

59. Recommendations:

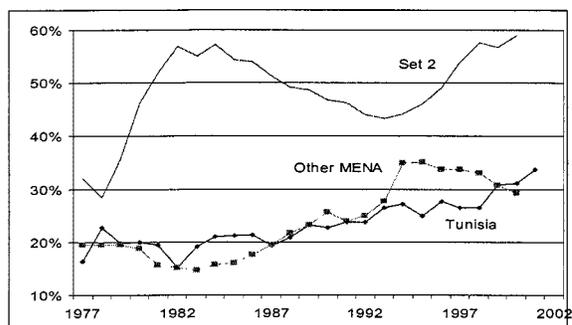
- Review the mix of external vs. domestic finance, taking into account **full** extent of foreign exchange risk;
- Formulate a currency benchmark to optimize the mix of external/domestic financing; and
- Formulate a cross-currency benchmark to manage risk in three key currencies (USD/EUR/JPY); while defining this benchmark, consider the **net** currency exposure of the government in USD and EUR;
- Quantify the cross-currency risk coming from "smaller" and basket currencies, and if the analysis suggests so, phase them out from the foreign portfolio;
- In taking decisions on swapping away exchange rate risk of individual liability positions, ensure that counterpart ceilings are set at prudent levels.

60. Interest Rate Risk. The Treasury does not have a procedure to define acceptable levels of risk from floating interest rates. On the external debt side, the share of floating-rate debt has grown steadily since mid-1970ies, from about 15 percent of the total external long-term debt to almost 35 percent in recent years (Figure II-5). The choice of fixed vs. floating instruments should be determined by how much volatility in cash outflows the budget can tolerate. Since the overall level of debt service is not insignificant, and since the budget is cash-based, the rule of thumb would be to favor fixed rate debt, which makes interest expenditure more predictable over the medium run, even if it increased the cost of borrowing program. This precisely has been the approach of the Government: the share of variable rate debt was growing but this trend was gradually reversed, and is significantly lower than in other countries with similar sovereign rating (BBB).

61. Tunisia's exposure to interest rate risk is generally in line with other MENA countries, but is much lower than in other comparable market borrowers. The current market conditions favor locking in historically low fixed interest rates; however, this decisions should be considered carefully, because runs counter the need to maintain market neutrality (discussed above). From this perspective, Tunisia's recent issuance

strategy could be revisited, as it continues to increase the share of floating rate debt, contrary to the trends in other MENA countries.

Figure II-5. Share of variable rate debt in external long-term debt



Notes: Definition of comparators are given in Annex 4; numbers for them are non-weighted averages.

Series begin in 1977, when Tunisia issued external debt on variable rates for the first time.

Source: The Treasury of Tunisia, World Bank DRS.

62. Much like in the case of rollover risk, the interest rate risk on the domestic market is significant. Over half of new domestic debt issuance is under one year and carries floating rates. Indeed, short-term Treasury Bills should be counted as floating instruments, since their yield may change several times in a year. Currently this exposure is dealt with by strict liquidity management policies of the Central Bank. However, as the domestic debt markets develop, and interest rates become more volatile, large portfolio of floating debt may hurt the Government's balance sheet. Over the medium term, it should aim at minimizing risks for the budget by shifting the portfolio structure towards longer-term fixed rate instruments in the domestic market.

63. Recommendations:

- Undertake analysis and formulate interest-rate risk benchmarks for the domestic and foreign-currency portfolios. The benchmarks should be formulated with full awareness of Tunisia's likely limited and costly access to the interest swap market (as compared to much easier access to currency swaps); take also into account acceptable limits on counterparty risk (see next paragraph).
- Select new borrowing instruments with explicit reference to the interest rate benchmark; recourse to interest rate swaps only in a limited fashion, if at all, to achieve the desirable proportions between floating rate and fixed rate debt.

64. Counterparty and Credit Risk. Credit risk can be defined as the inability of the counterparty to perform its contractual duties. In this narrow sense the Treasury faces limited credit risk as its main counterparties are the central bank and the primary dealers. In dealing with the latter the credit risk is limited due to the settlement system based on delivery against payment (DVP). In a broader sense the counterparties of the Treasury may be different entities in the public sector that are a recipient of onlent loans or guarantees. Though in their respect the Treasuries powers are limited, the use of credit enhancement tools (collateral, reserve fund) may limit the exposure to credit risk. On the external debt side, counterparty risk should be assessed for the CBT currency swap

transactions. It is understood that the CBT as the fiscal agent of the Government exercises prudence while choosing its counterparties, but there should exist comprehensive guidelines for this, in order for the Treasury to have a more complete picture of risk.

65. *Another form of credit risk is present in onlending operations, and may also be significant.* Often, onlending appears more attractive to a government than direct subsidies, since onlent funds are expected to be repaid. However, experience shows that the recovery of budgetary loans is typically poor, and has high administration costs. Where these funds are lent to inefficient public enterprises, they skew the playing field against more profitable new businesses. MOFs rarely have the institutional capacity to monitor and manage project risks inherent in the budgetary loans, which are often irrecoverable and thus turn into subsidies. Subsidies and budget lending serve similar economic goals, but the former are preferable on transparency grounds. While on-lending, the government incurs risks typical for a banking institution, which it is ill equipped to deal with. On-lending requires that the government actively manages the credit risk of debtor enterprises and has a strong recovery process. Efficient solutions are rare; for example, contracting this service out to an agent (such as a development bank) is also unlikely to reduce the risk. In Tunisia's current situation, where macroeconomic performance is threatened by a variety of adverse factors, the government should be wary of building too large an on-lending portfolio, and in any event should take steps to strengthen its risk management capacity in this area.

66. *Risks of contingent liabilities and other off-budget operations should be better assessed and controlled.* Off-budget risks are typically less well monitored and managed by governments, both developed and developing. These risks are not transparent and/or may reveal themselves only over the medium term; often they strike unexpectedly, being triggered by external developments or natural disasters. Such risks force the government to spend scarce budgetary resources to cover the losses of state owned financial institutions and enterprises, state social support institutions and other public entities, and sometimes even private sector entities, where the failure of such entity may endanger fragile macroeconomic stability. It is worth noting that fiscal risks may affect both expenditures and revenues, both assets and liabilities of the government. As a matter of priority, the Tunisian government should consider strengthening its budget procedures to cover unexpected losses from quasi-fiscal activities; expand its monitoring system to cover broader universe of fiscal risks; and extend the horizon for fiscal management, which helps to reveal longer-term costs of quasi-fiscal activities. Annex 2 provides further detail on the policies and institutions that help to control better off-budget risks on the liability side of the government's balance sheet.

67. *Recommendations:*

- **The Treasury** should establish and monitor counterparty limits based on the integrated vision of risk. While the relevant departments responsible for different types of issuance ("Front Offices") may make suggestions as to possible counterparties, the overall system of exposure limits should be established by the unit in charge of debt strategy formulation, i.e. by the "Middle Office". The approval of the limits should be done by the Minister of Finance.

68. ***Operational risk should be carefully reviewed.*** Based on the findings of the World Bank missions, operating procedures are sufficiently strong and security of sensitive information appear to be adequate. However, despite the strong culture of debt monitoring, there remain precedents of different government agencies coming out publicly with diverging debt information, which may negatively affect investor relations strategy and unduly increase the cost of borrowing. Another aspect of operational risk is related to the effectiveness of interagency communication, planning and coordination; this needs to be significantly strengthened. Chapter 4 of this report discusses the institutional aspects in greater detail.

69. ***To efficiently manage the diverse range of risks present in Tunisia's public liability portfolio, the most important measures are:***

- Compile a full view of different risks and introduce methods, such as accrual budgeting and quantitative valuation of indirect liabilities, to rationalize procedures for and rebalancing the structure of risks in order to prevent excessive exposures and to maintain overall sustainability of government finances;
- Formulate procedures for proper budgeting to cover fiscal risks;
- Examine the suitability of different techniques diversify the fiscal risk of onlending operations and contingent liabilities and to pass part of it back to the market.

II.5 Decision support mechanisms: the role of information and analysis

70. ***A government risk management strategy is only as good as the information used to formulate it.*** Tunisia has one of the best information systems among the countries at similar level of economic development. Databases on individual classes of government debt are modern, and support well transaction control and standardized reporting. However, there exists no unified debt database; consolidated debt reports are difficult to compile and even more difficult to customize, which makes it impossible to proactively respond to the changing market conditions.

71. ***On the external debt side, the Central Bank of Tunisia and the Ministry of Finance have sponsored the development of a centralized database (SIADÉ), which can justly be characterized as one of the best practices among the emerging market economies.*** The system has a modern open architecture design and is supported by a strong dedicated team of system specialists. SIADÉ covers all categories of public debts, including those not guaranteed by the state, as well as onlending operations. It includes a strong forecasting module, which generates loan-by-loan cash flow profiles. The database also supports the preparation of various aggregate reports.

72. ***While SIADÉ comfortably meets most of the transaction management needs, government experts still express concerns about the quality and timeliness of information, particularly with regards to the disbursements under project loans.*** Disbursement information is supposed to be provided by the sector ministries and entered in the database by its administrators – *Centre Informatique du Ministère des Finances (CIMPF)*. Sector ministries often delay such updates, which results in SIADÉ producing

less than reliable cash flow forecasts. These concerns, however, can be addressed within the existing information management framework.

73. Analytical systems supporting the risk assessment and strategy formulation, which are the Middle Office functionalities, are less developed. The system tools are insufficient to support a more disaggregated view of portfolio risks. Only nominal valuation of loan instruments is supported, and no mark to market valuation is available. Likewise, the guarantee portfolio is recoded in nominal figures, and no procedures exist for the valuation of guarantee risk. The report generation facilities cannot easily create customized reports required for more active debt management. On the domestic debt side, both information requirements and systems implemented are more basic. Data are kept and core parameters of domestic debt are calculated in simple spreadsheets.

74. The analytical systems are more basic and do not support the calculation of specific portfolio risk exposures. SIADÉ does not have such analytical capacities beyond cash flow forecasting for individual loan instruments. The Ministry of Finance does not regularly prepare debt sustainability scenarios, relying in this task on other agencies such as the CBT, Ministry of International Cooperation, and Ministry of Economic Development. As mentioned above, the existing debt system do not allow to quantify guarantee risk; similarly, no quantitative procedures exist to evaluate the risks of onlending operations and the risks of non-guaranteed debts of the broader public sector. Private external debt, which will have a growing impact in the future is tracked by the CBT, but this information is not regularly included into the debt sustainability scenarios. Finally, an important deficiency is the lack of consolidation for the total government portfolio (external plus domestic) except on highest level of aggregation, and only in nominal figures. Mark-to-market valuation of the whole government portfolio is still impossible¹⁷.

75. In order to support the public debt management strategy, the following upgrades are advisable for government information systems:

- Ensure regular in-year (at least quarterly) consolidation of all relevant debt data, including on contingent liabilities of the government, public sector debts on onlending operations, to allow regular updating of debt sustainability scenarios and portfolio benchmarks;
- Implement analytical systems supporting the measurement and forecasting of different types of portfolio risks, including those stemming from contingent liabilities of the government and non-guaranteed debts, to support an integrated asset/liability view of the government financial position.

¹⁷ This observation should not be interpreted as a recommendation of unifying all debt information (both external and domestic) in one database. International experience has shown that such integration is very costly and not necessarily efficient. One off-the-shelf solution advertised recently is a new version of CS-DRMS, shipped by the Commonwealth Secretariat, which can register both external and domestic debt. Implementation record of this version of CS-DRMS is still too short for conclusions about its efficiency in comprehensive debt portfolio recording. An alternative solution would be to equip the analytical modules with specially designed “data extraction channels” that would query the central databases and generate information in the format meaningful for portfolio risk analysis.

III. Promoting the development of domestic government securities markets

76. *The Tunisian Authorities are aware of the need to develop the market of the domestic public debt and have taken important steps in this direction.* Should the access of Tunisia to the international capital markets be temporarily restricted, the existence of a domestic liquid market would be essential to cope with financing stress. Moreover, elements such as the development of a domestic yield curve, which could be used as reference for domestic issuers, the diversification of risks and the reduction of the long-term cost of the debt also plead in favor of the development of a robust and liquid domestic market. This chapter examines more in depth options for the development of domestic debt markets - an essential precondition for a successful low-risk debt strategy.

III.1 Status of the domestic government securities markets

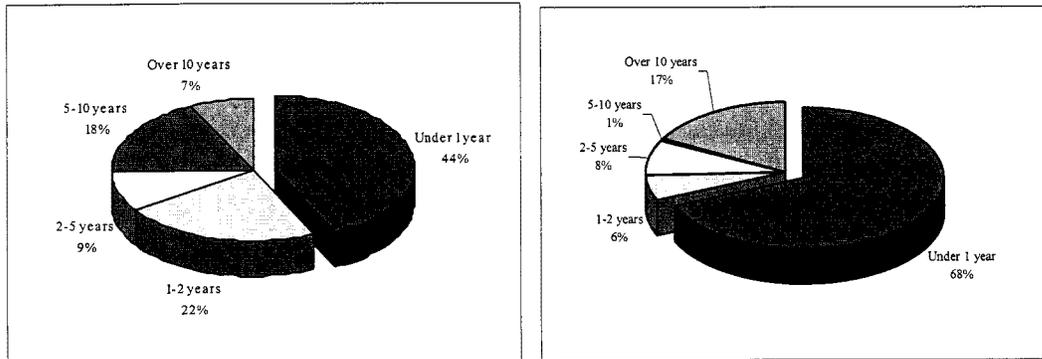
77. *The distribution of borrowing between domestic and foreign debt does not only depend on macro-economic constraints (such as the balance of payments deficit), but also on the material possibilities of issuance.* As regards the breakdown between the issues of long-term loans in TD and in currencies, it is conditional upon the refinancing of the maturing loans, the deficit being in theory financed half on the domestic market and half on the international market. Thus, 922 MDT were issued in 2000 in the form of BTA (“Bons du Trésor assimilables” - loans in TD with final maturities over one year) and that 617.4 MDT come from the international financial market, that is roughly speaking a breakdown of 60 % in TD – domestic- and 40 % in currencies- international. But the financing needs of the State on the domestic market are not entirely met, because the Treasury does not succeed in raising on the primary market at market conditions the amounts that it would like to issue or that it should issue. In particular, it finds it difficult to issue long maturities (Figures III-1a and III-1b).

78. *Treasury bond issuance is concentrated in the hands of a limited number of investors, the majority of which are public entities.* For example, at end October 2002, 80 % of the securities issued in the BTA 12-year bond were sold to the CNSS (“Caisse Nationale de Sécurité Sociale”).¹⁸ For the BTCT (short-term Treasury bill- maximum 52 weeks maturity), the situation is less clear, but the CNSS usually buys a share of roughly 40 % of the auctions. This concentration of issues on a very limited number of public sector investors, suggests that the primary market is somewhat artificial, rather consisting in shifting public funds from one sector of the State to another. The bulk of the financing needs of the State is thus covered by a transfer of capital within the public sector, either

¹⁸ The issues in the 12-year bond (BTA 8,25 % July 2014) represented end October 2002 54 % of the total issuance of a maturity over 1 year.

via auctions or other mechanisms of provision of funds, without any real call to the financial markets.¹⁹

Figure III-1. Maturity profile of domestic debt and of its issuance in 2002.



Note: Data are for October 2002.

Source: The Treasury of Tunisia, World Bank staff estimates.

79. The secondary market is still fairly inactive. In November 2002, the secondary market of the BTA entered 106 transactions, including 105 in "intra-groups", that is to say simple movements of accounts within the same financial group. The situation is even worse on the secondary market of the BTC: 555 intra-groups transactions, for a single transaction between different counterparts. The secondary market is thus more akin to intra-group transactions of limited transparency.

80. The absence of a secondary market prevents the emergence of a yield curve. A yield curve for government securities is key to enabling the "pricing" of other issuers' loans. It also makes it possible to evaluate the portfolios at market value and assess market risks realistically. The absence of a yield curve hampers more generally the perception by the public of the value of a fixed income asset.

81. An active money market is a prerequisite for developing a fixed-income securities market. An efficient money market supports the valorization of liquidity, providing necessary benchmarks for the valorization of fixed income assets that differ in terms of maturity, liquidity, and other risk characteristics. That provides the short-run anchoring necessary to the yield curve (Schinasi and Smith, 1998). At the same time, an active money market ensures the refinancing positions and the effective cash management for a number of participants, such as banks, stock exchange intermediaries, and non-financial enterprises. The money market supports the bond market by increasing bond liquidity and providing bond traders with a means of funding their temporary inventories. A liquid money market helps the financial institutions meet their needs for short-term liquidities and reduces the risks and cost of holding bonds in order to meet an investor's demands

¹⁹ Another indicator of this situation is the importance of deposits with the general Treasury. The deposits of the C.N.S.S. represented 900 MTD at the end of 2000; the direct deposits with the general Treasury were of 1,195.4 MTD at the end of October 2002, that is to say more than double the total of BTA issues at the same date (580.6 MDT for the issues over 52 weeks).

and finance their trading portfolios. By ensuring liquidity, the money market becomes thus a catalyst of bond market development. Despite some progress, the Tunisian money market is still inhibited by the reliance of banks on the CBT's refinancing facilities at stable and predictable interest rates (see below).

82. *The reasons for the inadequate functioning of the Tunisian public debt market are multiple, but can be traced back to five main factors:*

- the Central Bank's monetary policy operating procedures and the incentives structure in the banking system;
- the narrow investor base;
- the issuing strategy of the Treasury on the primary market;
- the absence of secondary market;
- psycho sociological factors, by nature difficult to apprehend.

83. *The various causes of the dysfunction interact and are mutually reinforced.* It is thus difficult to isolate one single element, the reform of which would lead to a drastic improvement of the market. Improving the functioning of the domestic public debt market would call for a coordinated strategy across these five dimensions. Elements of such a strategy are outlined in the last section, after reviewing more in depth the nature of the bottlenecks highlighted above.

III.2 An active money market is an important underpinning of domestic securities markets

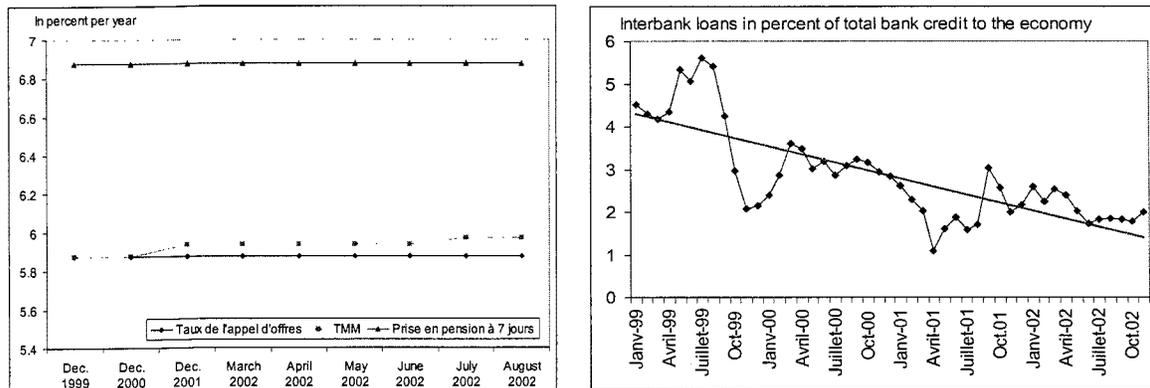
84. *The monetary policy framework plays an important part in the emergence of an active money market.* A rigid monetary framework, which does not support a sufficient flexibility of interest rates, hinders money market development. The framework of monetary policy in Tunisia is anchored on the defense of the external and internal value of the currency. The Central Bank of Tunisia (CBT) is responsible for controlling economic activity in order to preserve external balance (thus the currency's external value), while keeping inflation under control (in order to preserve the currency's internal value). With this intention, CBT's policy is centered on maintaining a constant effective real exchange rate. At the same time, credit growth, which is narrowly correlated with inflation and domestic demand growth, is used as an *intermediate policy target*. The existence of capital controls confers certain autonomy on monetary policy and makes it simultaneously possible to target the real effective exchange rate and domestic credit.

85. *To reach intermediate credit growth targets, the CBT relies on the control of the banking system's refinancing volume by using diverse instruments.* Weekly liquidity auctions (at the official intervention rate) constitute the main instrument that CBT uses to manage the banking system liquidity. A refinancing facility for a period of seven days, and up to 100 points above the official intervention rate, permits banks to satisfy some supplementary liquidity needs, when weekly liquidity auctions fall short of required reserves. The end-of-day operations finally permit a fine tuning of liquidity at a narrow rate, at $\pm 1/32$ the official intervention rate (World Bank and IMF, 2001). The dependence of Banks on easy refinancing by CBT has conveyed to the CBT a leading role in the

money market. This dependence, coupled with the narrow gap between the rate of deposits and the rate of refinancing by the CBT, discouraged the development of an active interbank market.

86. The absence of a yield curve prevents adequate evaluation of credit risks and leads to the indexing of the cost of credit to the TMM. Owing to the indexing of interest rates of many deposits and loans agreements on the TMM (“*taux du marché monétaire*”), the changes in the monetary policy are quickly reflected in the financial system, then in the economy as a whole. If this flexibility has the advantage to allow a fast response of the system to a change in interest rates, it also makes the CBT and the political authorities reluctant to changes in monetary policy, because such changes would quickly be passed on to the economy with the risk of increasing its funding cost in general and in particular that of the “strategic sectors”. This has created rigidity in interest rates (Figure III.2a), along with dependable and easy access to liquidity by the banks at a predictable rate. Therefore, although monetary policy seeks, in principle, to control growth in domestic credit as its main intermediate goal, in practice, monetary policy ends up focusing on interest rates as targets rather than as instruments to achieve the credit growth intermediate goals.

Figure III-2. Money market interest rates and interbank loans



(a), (b)

Source: The Treasury of Tunisia, World Bank staff.

87. Although the control of interior credit growth is the intermediate target of monetary policy, in practice, monetary policy implementation results in a limited flexibility of interest rates. Implementation of monetary policy effectively emphasizes interest rates as targets and not instruments used to reach intermediate objectives of credit growth. Besides, operational procedures don't rely enough on market instruments like open market operations, which could support the short-term market of treasury securities.

88. The stability and predictability of the money market rates inhibit the development of an active money market The money market remains narrow, because banks can easily refinance themselves at stable and predictable conditions from the CBT, rather than through the interbank market. Since 1999, interbank loans have shown a declining trend as a percentage of total bank credit to the economy, despite some recovery (Figure II-2b).

The rigidity of rates also discourages the development of secondary bond markets, where transactions rest extensively on different expectations of interest rate variations²⁰.

89. It is important that the structure of the banking system provides adequate incentives for banks to actively participate in the bond market. Banks which have short-term liabilities should play an active part in the short-end, rather than in the long-end of the bond market. But as the experience of developing countries, including Tunisia, has shown, if the banking system is dominated by state-owned financial institutions, incentives are not conducive to the development of active money markets. Thus, technical measures to promote the development of active money and bond markets may not pay off, unless there is parallel progress in privatization and bank restructuring (*Box III-1*). In Tunisia, even though there has been some progress in bank participation in the money market, it has been long in coming, and it may be related to the successful privatization of some of the smaller banks.

Box III-1. The role of bank incentives in the development of an active bond market

Experience suggests that, although many developing countries have succeeded in bolstering the domestic bond markets, others have been less successful as, in a sense, they tended to put the “cart before the horse” in trying to promote the market. Reform efforts often focused on technical issues (such as creating primary dealers and signing detailed duty agreements) or on establishing an institutional structure (creating a debt office within or without the central bank), but failed to address the more fundamental issues of possible conflicts between monetary policy and debt strategy and the incentives facing potential market participants. Of course, the technical and institutional aspects are very important. It would be wrong to ignore them. But the fundamental issues must also be addressed.

The incentives of potential market participants are linked to the dominant presence of state-owned institutions in banking, insurance, and social security. Maintaining some moderate state presence in banking and insurance may have some merit in terms of promoting certain financial policy objectives or delivering broad-based financial services. However, experience suggests that the managers of state-owned institutions do not have strong incentives to develop an active presence in the money and bond markets. They do not favor innovation and competition. Usually their performance is not evaluated on the basis of the profitability and solvency of their institutions. Of course, one or other state-owned bank could replicate the organizational structure of a private institution and encourage its managers to support an active presence in money and bond markets. But it is difficult to see all state-owned institutions doing so.

This raises serious doubts that efficient money and bond markets can be developed in a financial system that is dominated by state-owned institutions. To some extent, this is due to the way monetary policy is conducted. Indeed, the willingness of the central bank and the authorities to provide accommodation to banks on demand is not independent of the fact that it is the very same public banks that are in need of such accommodation.

²⁰ Reflecting the stable and predictable conditions of refinancing at the central bank, banks become somewhat less concerned about the quality of debtors, especially since granted loans could be used under certain conditions as collateral for refinancing from the CBT. That can have consequences for the stability of the whole banking system.

90. ***A number of other institutional rigidities discourage the emergence of an active money market.*** Main factors include:

- The absence of legislation on the repurchase agreements ("repos"). A draft of regulation on the matter was recently approved (11/12/2002) by the Council of Ministers, but it has yet to be implemented;
- The prohibition for the banks and other issuers to issue short term commercial paper was recently abolished (authorization was granted to issue certificates of deposit at 10 days), but this possibility should be extended;
- The CBT accepts other collateral than Government paper for its refinancing operations. Recently, the loans on certain high-quality debtors, belonging to the so called "strategic sectors" were accepted as collateral. Even though emphasis has recently shifted, from sectoral considerations to the creditworthiness of the debtors, this practice may not favor the emergence of an active government securities market since private credits are regarded as having a quality equivalent to sovereign paper. It is necessary to be sure that admissible collateral is not only of good quality, but that comes from debtors who meet strict transparency and auditing criteria.
- There is also the question of the limit imposed on the central bank for the holding of government securities (10 percent of Government tax revenues of the preceding year), with the aim of limiting the risk of debt monetization. This ceiling may inhibit the implementation of monetary policy based on open market operations.
- The rigidity and predictability of the money market interest rates has prevented so far the banks from developing their expertise as regards liquidity management.

III.3 The primary market for government securities

91. ***The technical organization of the primary market in Tunisian public debt follows international best practice.*** The Tunisian Treasury has indeed very largely inspired itself from the French experience—which, in turn, drew largely on the US model, whose success is well known. However, the primary market suffered from an initial weakness because the system of primary dealers in government securities ("*Spécialistes en Valeurs du Trésor*"; SVT), to whom was granted, at the beginning, the monopoly of participation to the auctions of the Treasury, was set up with the brokers only. Indeed, the banks showed little interest for a reform of the public debt market since the Treasury's former method of issuance ("*Bons du Trésor cessibles*") suited them well and they were no willing to change.

92. ***Implementation of the reform led to stiff competition between the SVT and the banking sector.*** SVT were distributing the public debt to investors, while banks were proposing other more remunerative products. The banks, as it should be, won the competition, taking advantage of their stronger capital basis and a better knowledge of the final investors needs. The SVT thus withdrew, one after the other (only one or two

still take part in the auctions), since they could not turn profitable the heavy investments they had to make to acquire the status of SVT. Thus, the Treasury had to call on to other market players, but the banks turned out to be less enthusiastic, since the reform of the domestic public debt market was initiated without their collaboration.

Box III-2. Primary dealers in government securities markets

The experience of the "developed" markets suggests indeed that final investors do not participate directly in the auctions. The reasons for this are basically two : (I) the secondary market usually drops at the moment of the auctions, so that it is less expensive for final investors to buy on the secondary market than at the auctions. The banks have the same concern, but they are more or less forced to buy : Primary Dealers are "remunerated" (in several different ways) in association with their presence in the markets, so they have an incentive to buy. It is said that some big banks have even a budget to "buy market shares"; (II) the timing and the auctioned bonds of the Treasury's auctions do not match per se the investor's needs and strategies.

The typical scheme is as follows: the "primary dealers" participate to the auctions and then sell to final investors on the secondary market the securities they acquired on the primary market. However, only the financial intermediaries that have a sufficient financial standing, the banks, can afford to take on their books the securities they acquired at the auctions. The brokers, by definition, do not have this capital.

Primary dealers (S.V.T.) in Western Europe are quasi exclusively banks. This is true for Belgium, Netherlands, Portugal, France, etc. Italy accepts as primary dealers some brokers, with a special legal status. These brokers, however, are only a few, and are disappearing, due to the consolidation of the Italian financial sector.

93. *The Treasury, despite its stated willingness to conform to the rules of the market in order to meet the government's financing needs, finds it hard to build its credibility as an issuer.* A first reason is the perceived lack of transparency of Treasury issuance. The issuance calendar is published, but it undergoes many changes, such as cancelled auctions, sometimes for a long period. There are objective reasons for these changes, such as insufficient offers of the bidders at the auctions, or the timing of the international issues. However, lack of transparency and predictability makes the participants uncertain about the issuing policy. Establishing transparency and credibility calls for making intentions known to the market and for conforming as much as possible to the announced plans. The Internet could be an appropriate means for the Treasury to publish its auction calendar and, before each auction, the range of amounts in which it intends to auction as well as other information relevant for the market . To be sure, the Internet is only a means of communication. There are others. What matters is the result: communication ²¹. As a rule of thumb, to enhance its credibility, the Treasury would have to issue debt on a regular basis, *not when it needs, but when it can*—respecting its commitments in the auctions' calendar.

94. *Owing to the absence of a yield curve and thus of reliable benchmarks, the process of "price discovery" is random.* This undermines the credibility of the Treasury—who is also reluctant to issue at yield levels that it feels exceed anticipated market levels, thus preventing bidders from making offers in line with market yields.. A systematic

²¹ It is highly desirable that the Treasury have its own Internet site, whether integrated into the Ministry of Finance's site or not; in any case, the Treasury must independently control its own content and its regular updates.

difference of appreciation with the market leads the Treasury to allocate amounts much lower than those preannounced, thus damaging its transparency and its credibility. The Treasury's stated main concern is to limit its funding costs and not to drive the other issuers out of the capital market. However, reluctance to pay the price asked by the markets casts doubt about the declared will to play the game of the financial markets. Of course, before adhering completely to market rates, the Treasury should make sure that sufficient competition from market participants prevails in its offerings. It is, therefore, important to enhance regulatory safeguards—including penalties in the SVT duties agreements—that prevent collusive behavior in the market. A formal protocol of collaboration between the Central Bank and the "*Comité du Marché Financier*" (see below) should consider monitoring the participation of the banks in the auctions to avoid possible collusion.

95. *As the Treasury is reluctant to issue at the levels above those deemed appropriate, bond auctions meet little success.* The Treasury encounters particular difficulty to issue in the long-term end of the yield curve. For example, up until October 2002, issuance for the year in maturities longer than 12 months amounted to TD 580.6 million, against TD 1,267.3 million in maturities equal or lower than 12 months (Figure III-1b). As discussed earlier, long-term issuance relies heavily on a few public sector entities, such as the CNSS. As a consequence, the primary market remains still artificial, since on the long-term segment the final investors are mainly State institutions, while on the short-term segment the State is still very present—with the balance of the issues taken by the banking system, which needs government paper to participate in the liquidity auctions of the central bank.

96. *Developing an efficient domestic public debt market is a long-term endeavor and entails a start up cost.* This is suggested by the experience of countries which acquired the status of a high grade sovereign issuer, along with the associated advantages in terms of issuing conditions, reduction of public debt cost and of the financing cost in the national economy as a whole. The benefits come only later on, when the credibility of the Treasury as an issuer has been well established. Political will is needed to accept the short-term cost of a strategy with a medium-term pay off. In this respect, Tunisia's good economic fundamentals and medium-term growth prospects, allow sufficient flexibility to set up significant reforms under favorable conditions without having to fight against time nor being confronted with insurmountable budgetary needs. This element is nonetheless precious and it is important not to waste it.

Box III-3. The costs of a reform strategy of domestic debt markets

An essential element of a reform strategy is the *cost* of the reforms. The experience of the countries of Western Europe suggests that the implementation of a performing public debt market has a cost at the start.

To take the example of Belgium, at the time of the reform of the domestic public debt market end 1980, begin of 1990 (introduction of the OLOs - linear bonds, Belgian equivalent of the French OAT and the treasury certificates, equivalents of the French BTF), the Belgian Treasury financed itself during long months at *Bibor +*, that is to say at conditions less favorable than those obtained by the domestic banks between themselves.

There are reasons for such a situation: the banks considered the Treasury as a "customer" like any other one and were not ready to grant it preferential conditions. And it is only with the gradual standardization of its issues, the concretization in the facts of its commitment to play the game of the financial markets, its transparency, the importance attached to the liquidity and well targeted "marketing" steps that the Belgian

Treasury built its credibility as a sovereign issuer (with as a consequence that the last 10 year benchmark bond has been issued in January 2003 (5 billion euros) at Bund + 16 basis points- Belgium comes from levels of roughly Bund + 300 bp at the beginning of the 1990s).

Source: World Bank staff.

97. ***The primary market is also inhibited by some institutional weaknesses.*** Most importantly, the participants to the auctions (SVT, banks) are not remunerated for their efforts. In accordance with the French model, the principal advantage of the SVT is the authorization to introduce (in certain limits and according to certain conditions) non-competitive bids, after the auction, at the weighted average price of the auction. However, taking into account the current situation (absence of a yield curve, lack of a secondary market, restrictive issuing policy), this advantage is rather formal and has little interest for them, so that in practice the Treasury has no incentive to support the success of its auctions. An additional factor of weakness of the primary market is the importance of deposits within the "*trésorerie générale*"—TD 1,195 million at end October 2002, that is approximately half of the total BTA outstanding. While this issue was not investigated thoroughly, part of these funds could be injected on the primary market and contribute to improve the issuance .

98. ***Moreover, the rapidity of the systems of bids to the auctions and of communication of the results could be improved.*** The current procedures are still somewhat slow, while practices such as bids to the auctions by mail could increase trading risks. Due to the lack of a performing secondary market, the situation is not too alarming at present but one should be aware that an upgrade of procedures and techniques must be considered quickly so that these deficiencies do not weigh on the development of the market.

III.4 The secondary market for government securities

99. ***The secondary market of the Tunisian public debt is inactive, with absence of a yield curve and thus no reliable benchmarks for "price discovery".*** This handicaps all the issuers, including the Treasury. Due to the absence of a yield curve, portfolios, investment funds, etc. are not valued at market value ("marked to market"), disregarding the legal provisions on the matter, but at face value. Moreover, the "yield" is calculated on the basis of the rate of the coupons, or with other ad hoc methods, rather than on the basis of the actualization of cash flows.

100. ***It exists nevertheless a "parallel" (over-the-counter, OTC) secondary market, in the sense that there are transactions between different entities within financial groups.*** This parallel secondary market lacks transparency, since the transactions in question are carried out inside the same financial group in an over-the-counter market (OTC), non supervised by any particular authority. It is thus hard to establish the transparency of this OTC market. Transactions between banks or SVT are obviously rare, owing to the opacity of this parallel secondary market, which prevents the emergence of a true yield curve. The financial conditions of these intragroup transactions might also be questionable, because of the legal relationship between various group entities, and their underlying reasons, often more for accountancy and balance sheet matters than for purely financial ones. Nevertheless, it will be noted that the Treasury has started to receive a

detailed list of these intra-groups transactions, which could be helpful as a basis of a yield curve.

101. *The transparency of this parallel secondary market should be improved by appropriate initiatives.* The institutional situation poses some problems. Banks are subject to prudential control by BCT, something lacking in the case of transactions carried out in the OTC market. As for CMF, the Article 16 of the Convention between banks and the Treasury could provide a basis for the control of these transactions. However, this opportunity remains unexploited for lack of an agreement with the CBT, that would allow to implement this control. So there is a gap in the law supporting intra-group transactions.

- as a first step, the Treasurer should publish daily in the media the yield curve that can be established from these intra-groups transactions.
- Then, it would be necessary to establish a **general obligation of transactions reporting** (all transactions, intra-group and OTC market transactions) to a "reporting" authority in charge of establishing **market transparency**, since "reporting" to the Treasury is only an imperfect option.
- As the prerogatives of the reporting authority only involve receiving transaction reports and establishing market transparency, with virtually no control over participants, it is probably unproductive to establish a new body—especially given that the Tunis Stock Exchange has both the material infrastructure and the requisite knowledge to perform these functions.

102. *Once the general obligation to report transactions has been introduced, supervisors will have to ensure that it is enforced by all players in the OTC market.* In this regard, there must be an agreement between CMF and CBT, in view of the institutional gaps mentioned above. This agreement should include, at least (i) a clear distribution of competencies between CBT and CMF with regard to verifying the integrity and content of reporting and (ii) a procedure of communication between authorities concerned about any "irregular" transactions, and the attempt to elude transactions reporting. The creation of a "Market Authority" for these OTC transactions could also be considered, but an effective agreement between BCT/CMF and the reporting authority will make the deal easier if the creation of yet another structure is to be avoided. Furthermore, there is the issue of identifying the market participants subject to the obligation of transaction reporting. The question merits carefully study, but, at the very least, transaction reporting would be essential for the financial intermediaries who act as counterparts, brokers, agents or commission agents.

103. *The obligation of quotation is not constraining enough.* It is limited to transactions above TD 20,000 and even at this level, it is not always respected. One should be aware that the development of the secondary market depends on the capacity of the financial intermediaries to bring liquidity to the market and thus to quote prices. If they do not quote, there cannot be a market. Implementation of an effective quotation requirement must go hand-in-hand with the establishment of OTC market transparency, since secondary market liquidity will be built on the capacity of players to propose competitive market prices, thereby ending the phenomenon of captive intra-group transactions.

104. ***The limited amount of securities outstanding do not support the development of the secondary market.*** International experience demonstrates that the degree of bond liquidity is largely related to the amount of stocks outstanding. It is recommended to target a critical mass in bond issuance in order to create a liquid Treasury bonds secondary market. ***But*** the BTA issue with the most significant stock outstanding as of October 2002 was the BTA 3/2009, with an outstanding amount of TD 509.5 million. Follows the 10/2004 issue (TD 483.8 million) and the 7/2014 issue (311.1 MDT). These limited amounts outstanding do not support the liquidity of the market. By comparison, Portugal sets an objective of 5 billion euros for its benchmarks (thus approximately 10 times more) and in Belgium, the objective is a minimum of 10 billion euros. The BTA buy back policy of the Treasury does not contribute to increase neither the outstanding stocks nor the liquidity of the market.

105. ***Restrictions on the ability of banks to make direct transactions with final investors do not support the secondary market.*** These restrictions are reflected in Article 7 of the convention between Treasury (with the exception of notification of adjudication results and client payment). It is questionable whether such a restriction is wise, insofar as it sets up an obstacle to player intervention in the secondary market. One of the key bottlenecks in the secondary market is precisely its lack of competition. The problems caused by the intra-group transactions should be regulated by general measures regarding transparency and market integrity rather than by barriers on secondary market competition. Similarly, the right to make secondary market transactions should be granted to all financial intermediaries without necessarily having to sign an agreement with the Ministry of Finance.

106. ***Other more technical factors also hamper the development of the secondary market.*** Prominent among them are the following:

- The absence of regulations on repurchase agreements transactions. The draft law authorizing and regulating the repurchase agreements is currently under discussion at the Assembly. A rapid implementation is necessary.
- The procedures as regards payment-delivery system could still be improved. Advanced projects exist in this field, in particular the multi-cycle and the shift to settlement in D+3.
- The system of "liquidity contracts" concluded between the banks and private investors are not likely to favor the emergence of an active secondary market for the domestic debt because : (I) they are not transparent (depending on the captive relations between a bank and its customers); and (II) they do not increase the liquidity of the market as a whole.

107. ***Some progress has been accomplished recently in tackling the obstacles to the development of an active government securities market.*** In particular, since the assessment of these issues in the context of the FSAP for Tunisia (November 2001—World Bank / IMF, 2001b), progress has been achieved in the following areas:

- The legal framework of the repurchase agreements is under discussion at the Assembly;

- Implementation of the repurchase agreements of the 3 months Treasury bills by way of auctions of the T.C.B. from 6/11/2001;
- Modification of the term of the end-of-day repo (from 1 to 7 days) by the T.C.B. from 2/1/2002;
- The interdiction for banks and other issuers to issue short term commercial paper was abolished;
- Reporting of intra-group and OTC market transactions to the Treasury;
- A decision of principle to open the local debt market to foreign investors.
- New banking law establishing the generic concept of credit establishment, which regroup at the same time the banks and financial establishments;
- Various other technical measures relating to the working of the banking activity (reinforcement of the regulation concerning the granting of credits and risk measurements, creation of a liquidity ratio, publicity of the conditions of the banks).

III.5 Reinforcing the investor base

108. ***Tunisia lacks domestic or international investors with a strong appetite for long maturities.*** There exist three categories of domestic long-term investors: pension funds, insurance companies and long-term savings. As discussed earlier, the pension funds are not largely developed in Tunisia, with the exception of some rare public pension funds. The financial health of the insurance sector is precarious. An in-depth rehabilitation is imperative for this sector to become an active player on the public debt market. Life insurance is not very well developed, for the same reasons as the pension schemes.

109. ***The Collective Investment Institutions are, on the other hand, reasonably well developed, and investment companies (SICAV) invest in Government paper.*** The sector is dominated by funds managed by banks, representing 25 out of the 28 existing funds in 2000. Total assets of the SICAVs grew fast since their introduction in 1992, amounting to 5.1 of GDP at the end of 2000.²² The large majority of SICAV (90 percent of total assets) are bond funds, investing about evenly on government securities (43 percent of their portfolio) and corporate bonds—including commercial paper. However, these purchases do not contribute, however, to the activity of the secondary market because they remain mainly "intra-group" transactions: the bank who buy securities at the auction simply transfer them to the in-house SICAV. The new accounting standards on mutual funds, introduced in 1999, set out modern valuation rules, including "mark-to-market" pricing of assets. However, in practice, most of debt instruments are still priced at their book value. The supervision of collective investment institutions by the CMF has been

²² The Tunisian law provides for the operation of both open-ended investment companies ("*Sociétés d'investissement à capital variable*"—SICAV) and unit trusts ("*Fonds communs de placement*"—FCP), but only the former have been established so far.

strengthened, but further steps are needed, as there are concerns that the valuation of assets may be deficient, while compliance with custodial and auditing rules may be inadequate (World Bank / IMF, 2001b).

110. ***Foreign investors cannot hold public debt denominated in TD, thus cutting the Treasury off a potentially important market.*** Tunisia has taken some steps in liberalizing the capital account and the government hopes to consolidate this progress and achieve full convertibility of the Dinar in the future. But a number of challenges should be addressed irrespective of the sequencing of capital account liberalization, among which the development of a robust government securities market holds a prominent place (IMF, 2002). A partial opening of the domestic market of government securities is being examined by the Treasury, (see below). Broader opening up of domestic debt issuance to foreign investors could be associated with further steps to open up the capital account in the future, but would call for ambitious steps to reinforce the banking system.

111. ***However, extending part of domestic debt issuance to foreign investors calls for careful planning because setbacks can be costly.*** In this field Tunisia cannot afford mistakes because a disappointed investor would be a lost investor, while setbacks in the domestic debt market will be also sanctioned in the international financial markets, raising the cost of Tunisia's foreign borrowing. Should non-resident investors be granted access to domestic debt, these investors must be able to exit the market as easily as they enter. Limited market liquidity on the domestic market would inevitably lead the foreign investors "to remain stuck" with their securities and the Tunisian debt would quickly acquire a bad reputation on the international markets. This would affect rapidly Tunisia's foreign currency borrowing because it is very unlikely that foreign investors distinguish between loans in local currency and loans in currencies when liquidity is at stake.²³ The "illiquidity premium" on sovereign borrowing would thus increase the cost of financing.

112. ***There are advanced projects aimed at opening the domestic government securities market to foreign investors (up to 5% of domestic debt outstanding) but it must be pointed out that this domestic market opening scheme is not very suitable in its current form.*** On the one hand, the system proposed is complicated and difficult to manage. International experience shows that rationing measures are not applicable in the secondary market, while foreign investors find it unattractive spending time trying to figure out complicated structural mechanisms. In addition, quota techniques are likely to disappoint foreign investors eager to buy or sell debt in local currency, even risking to drive them out of the domestic market and, consequently, out of the foreign currency bond market. For this reason, even though the gradual opening of domestic debt to foreign investors goes in the right direction, the currently envisaged application methods would need to be revisited.

²³ The internationalization of the holding of the debt in domestic currency is the key factor of liquidity. Non-resident investors have other views than the domestic players and it is precisely this diversity of interests that increases liquidity of the domestic market. The example of Belgium is very relevant: before the Euro, the OLOs (= Belgian OAT) were held 90 % inside and 10 % outside Belgium. The market was not very liquid, the Belgian players going generally at the same time in the same direction to buy or sell. Since the Euro, and due to constant efforts of marketing abroad, more than 50 % of the OLO are now held by foreign investors, this proportion reaching even 80 % for the OLO issued by way of syndication. The liquidity of the Belgian market has increased and is now similar to that of the French market.

113. *Psycho-sociological factors would also have to be addressed, because they are significant in shaping domestic investor appetite for public debt.* A frequently cited cause for the failure of the public debt market is the lack of financial culture of the market players, in particular with regard to the evaluation of the fixed income assets. Private investors are used to think in nominal value and do not actually realize that the market value of a bond varies according to market conditions. They do not seem to be prepared yet to accept that the valuation of their bond assets is lower than their nominal value. The fact that the investment vehicles are not evaluated at market value thus does not help the public to become aware of the financial risks of its investment.

III.6 Options for reform

114. *Although countries have adopted different approaches in the timing and sequencing of measures to develop a government securities market, experience suggests that some key steps are important prerequisites for success.* The main elements of programs that have proven successful are summarized in the World Bank and IMF *Guidelines for Public Debt Management*. Based on the diagnostics in this chapter, to assess in a snapshot Tunisia's progress in this process, a 4-level rating is attempted with regard to each of these criteria: (i) fulfilled; (ii) not entirely fulfilled; (iii) some progress; (iv) pending (Box III-4).²⁴

Box III-4. Benchmark Tunisia: development of an efficient government debt market

Early steps in developing securities market regulation to support the issuance and trading of government securities should include:	
Establishing a legal framework for securities issuance	Fulfilled
Developing a regulatory environment to foster market development and enable sound supervisory practices to be enforced	Fulfilled , but some further improvements desirable, such as reporting of intra-group transactions
Introducing appropriate accounting, auditing, and disclosure practices for financial sector reporting	Not entirely fulfilled due to the absence of mark-to-market evaluation of fixed income assets
Market infrastructure to help to build market liquidity and to reduce systemic risk, can be developed over time by:	
Introducing trading arrangements suitable for the size of the market, which include efficient and safe custody, clearing, and settlement procedures	Fulfilled
Encouraging the development of a system of market-makers to enable buyers and sellers to transact efficiently at prices reflecting fair value	Some progress
removing any tax or other regulatory impediments, which may hamper trading in government securities	Fulfilled
fostering, at a later stage, the scope for other money market and risk management instruments, such as repos and interest rate futures and swaps	Some progress (in view of the imminent introduction of repos)
Central bank operations to manage market liquidity	Some progress
Strengthening the demand for government securities involves acting on a broad front to build the potential investor base through measures such as:	
Removing regulatory and fiscal distortions, which inhibit the development of institutional investors (e.g., pension reform)	Some progress —reflecting reasonable SICAV development, but absence of pension reform
Eliminating below-market-rate funding through captive investor sources	Some progress (role of the general

²⁴ The benchmarking in Box III-4 should be interpreted carefully because in a number of cases, though the required regulatory steps have been taken and best-practice infrastructure has been put in place, the practice of market participants does not fully comply with the existing regulatory framework.

	treasury)
Implementing appropriate rules and regulatory regime affecting participation by foreign investors in the domestic market	Pending (some progress in view)
<i>In developing the supply of government securities the key elements for establishing an efficient primary market include:</i>	
Establishing clear objectives for security issuance and debt management	not entirely fulfilled
Developing basic projections of the government's liquidity needs	Some progress
Creating safe and efficient channels for the distribution of securities (e.g., auctions, syndication, possible use of primary dealers) targeted to investor needs and thereby lowering transaction costs	not entirely fulfilled
Progressively extending the maturity of government securities	Some progress
consolidating the number of debt issues and creating standardized securities with conventional maturities with a view to eventually provide market benchmarks	Some progress
moving towards a predictable and transparent debt management operation, e.g., with pre-announced issuance calendars, and greater disclosure of funding needs and auction outcomes	not entirely fulfilled (because in practice issuance is often scaled back or cancelled)

115. ***Moving forward, strengthening the market of the Tunisian public debt would call for measures in complementary directions.*** Three areas of reform seem more prominent: organizational; structural, and technical. Organizational measures are discussed in the last section on Institutions for active debt management, so that the discussion below focuses on the two other areas of measures and the phasing in of reforms.

III.6.1 Structural initiatives

116. ***A properly functioning government securities market has to be underpinned by a healthy bank sector.*** The reform of the public debt market is, therefore, linked to the reform of the banking sector as a whole, and in particular to the solution of the problem of the “bad loans”. With the assistance of the World Bank and other International Financial Institutions, the authorities have taken measures since the mid-1990s for the rehabilitation of the banking system, and have significantly tightened prudential supervision. However, the reforms in this field should be continued and intensified, to reduce the dependency of banks from Central Bank refinancing and allow more flexibility in money market interest rates.

117. ***Creating an enabling environment for the emergence of an active money market would call for a new framework of monetary policy.*** Monetary policy should move away from controlling interest rates, towards controlling base money. The current system of credit targeting through the control of the amount of bank refinancing appears sub-optimal, due to the unstable relationship between bank refinancing and credit growth (IMF 2003). By contrast, base money seems more closely related to credit. Adopting a monetary framework built around the control of base money would allow interest rates to fluctuate more freely and enabling the emergence of an active interbank market and a short-term yield curve. This should go in tandem with a move toward operating procedures for monetary policy based on indirect instruments, such as open market operations.

118. ***More specific measures to reform the framework of the monetary policy could facilitate the emergence of a government securities market.*** First, and until the

government securities market has been established, it will be important to insure that only private paper of good quality, matching strict criteria of transparency and audit of debtors accounts is eligible as collateral for the CBT refinancing operations. Second, the authorities could consider easing the rule of 10 percent of the annual revenues from taxes of the preceding year as limit to the holding of Government paper by the CBT. Even if it is advisable that the implementation of these two reforms takes place in a progressive way, their decision would give a clear signal to the market.

119. ***Promoting a capitalization pillar for retirement benefits would put the pension system on a more sound footing and would strengthen the basis for the development of domestic securities markets.*** International experience suggests that the development of funded private pension schemes that supplement the traditional pay-as-you-go pillar of the pension systems may potentially have large benefits for the development of domestic financial markets. Under some conditions, funded pension schemes may increase the rate of savings in a country, thus directly stimulating the development of domestic financial markets. But even without a direct impact on the rate of savings, funded pension schemes contribute to a shift in the composition of financial assets, by increasing the supply of long-term contractual savings. Better mobilization of long-term savings can support the development of the long-term end of domestic government securities markets, because private pension funds primarily invest in government securities (36 percent of pension fund assets in Chile, and as much as 60 percent in Poland and 70 percent in Bolivia). But the benefits from the emergence of pension funds depend on a number of preconditions. Attainment of critical mass; an enabling regulatory environment that frees up pension funds from overly constraining investment regulations; a supervisory framework that preserves integrity; prevalence of competitive market structures; are important preconditions for securing a positive impact on the financial system and increased efficiency (Vittas, 2000).

120. ***However, creating even a partially funded private pension system entails initial fiscal costs.*** Moving to a partially funded pension system involves foregone revenues for the pay-as-you-go pillar. Public finances will, thus, bear temporary fiscal costs, to pay for the retirement benefits of those who will not be covered by the capitalization pillar during the transition to the new system (existing retirees and old-age contributors). To keep such costs at a minimum it is important that the transition be implemented from an early stage, well before the projected deterioration of the demographic fundamentals and the associated worsening of the financial situation of the pay-as-you-go system. The Tunisian authorities are aware of the benefits of developing a properly regulated capitalization pensions pillar and have established various working groups for this purpose, although no initiative has been taken to date.

121. ***Opening up progressively domestic debt issuance to foreign investors would help strengthen the investor base for government securities.*** However, to the prerequisite for such a move would be a robust domestic government debt market, and more specifically an improved liquidity of the secondary market. Failure to do so would risk to damage investor confidence, not only on the domestic bond market but, most importantly, on the market for foreign currency Tunisian debt.

122. ***The establishment of a new Code of duties for the SVT could renew the momentum of the domestic debt market.*** The drawing-up of a good Code of duties is a

delicate undertaking, which is more related to negotiation than to a rational construction. The Treasury must be prepared to make concessions and, thus, to pay the short-term cost for the development of the market. The initiative for this maneuver lies with the Treasury, but the recommendation is to carry out the broadest possible consultations with all the players concerned and not only with the (future) SVT.

III.6.2 Technical measures

123. *The SVT Code of duties should be reviewed.*

- As seen previously, the current system of non-competitive bids is of limited value in the absence of a secondary market. Something else should thus be found to remunerate the S.V.T. in exchange of their obligations. One option could be the access of the S.V.T. to a refinancing preferential facility with the C.B.T., possibly modulated according to their own merits (activity on the primary and secondary markets, respect of the obligation of quotation, etc). The granting of a preferential refinancing facility to the S.V.T. could facilitate the adjustment of the monetary policy while offering them a remuneration, which would have some value in this case.
- Moreover, the SVT must post bid and ask prices and must quote, of course within reasonable limits, when they are asked for a price. This is a key precondition, as it is indeed impossible for the secondary market to emerge if the market players do not quote prices to the investors.
- Another important point of the Code of duties must be the requirement of a coherent internal structuring of SVT for the development of capital markets. The SVT must indeed have a trading room, centralized management of their own portfolios, their activities for a third party account, their activities in the international bond markets, their possible private bonds and options, etc., in order to support a permanent arbitrage between various financial instruments. In this regard, existing gaps in the Code of duties must be filled. The emphasis should be laid on ensuring an SVT structure that enables a more dynamic presence on the capital market.
- It is finally necessary to remove from the Code of duties all measures that might restrict competition on the secondary market. All SVT (and more generally all financial intermediaries, including the banks) must have the freedom to buy or sell to anyone in the secondary market.

124. *All intra-group transactions should be reported to the reporting authority, even if they are not carried out on the stock exchange.* The declaration should at least mention the following elements: identity of the counterparty, nature of the transaction (purchase, sale), underlying security, exchanged volume, price (or rate), and value date of the transaction. The reporting authority would thus have the necessary elements to establish the transparency of the market and to release a yield curve, even if these transactions do not take place on the stock exchange.

125. *Measures should also be considered concerning the intra-group transactions.* One option is to put in place “best execution rules”, in tandem with the reporting of the

transactions to a reporting authority (which could be the stock exchange), even if the transactions are not executed in the stock exchange but OTC. Of course, control of the rules of “best execution” should be enforced and enforcing such control would call for close coordination between the CBT and the CMF. Another option is the interdiction of the intra-group transactions and the centralization of these transactions on the stock exchange. This could be a way to bring these transactions to light, and consequently to create a secondary market, while limiting the ambiguous relationship that may exist between various entities of the same group. The market would be much more transparent if a SICAV was obliged to buy from another bank than the bank of its group.

126. ***Suppressing the indexation of the cost of credit to the economy on the TMM would add flexibility to the money market.*** This indexation can be justified within the framework of a stable monetary policy in which the rates remain constant but it will raise problems when the secondary market develops. The cost of credit to the economy must be determined: (i) in comparison with the yield curve of the Government securities—rather than on basis of the money market rates, even if a variable margin is applied to it according to the term of the credit; and, (ii) according to the quality and the creditworthiness of the debtor, as opposed to other economic policy priorities.

127. ***To build its credibility, the Treasury must respect its calendar and no longer cancel auctions, whatever the circumstances or the timing of the external issues.*** The Treasury must distinguish between its cash position management and its long-term funding policy. These are two different fields which must be managed separately and which should not interact. In other words, the Treasury must absolutely avoid regularly modifying its long-term funding policy in function of cash imperatives.

128. ***In this approach which separates Treasury financing and daily management of cash flows, the Treasury must study the possibility of becoming an interbank market player.*** The Treasury will thus have the ability to actively manage its daily cash needs. Indeed, its cash surpluses should not be “frozen” at the central bank but could become actively managed, thus reducing the cost of State financing. This reform would not affect BCT monetary policy, because Treasury will be a market player just like the BCT and others, and therefore monetary policy should be adapted according to the currency held by the Treasury, like any other market player.

129. ***The Treasury must respect the range of the needs it publishes and allocate at the price asked by the market.*** The Treasury should announce a minimum and a maximum amount for each maturity offered. Of course, initially, this policy will cost, but it will greatly help build credibility, thus favoring the emergence of a market of the public debt. If necessary, the Treasury must also re-examine the amount of the needs it wants to fund by way of auctions, in order to adjust its volume to the expected demand of the market. It will become therefore predictable in the amounts it allocates.

130. ***Limiting the number of issuance lines of BTA and increasing the outstanding amounts will improve market liquidity.*** Issues should be concentrated on a limited number of BTA, the benchmarks, to be chosen according to market demand. The optimal issuance size of a benchmark should be examined jointly with the market participants. Roughly, the Treasury should aim at an average outstanding of roughly one billion TD per benchmark line. Similarly, the buy back policy can be justified only insofar as the

Treasury buys back the old illiquid and cheap debt so as to issue more liquid and more expensive new debt. A dialogue with the market is necessary before deciding of a repurchase policy.

131. *Upgrading the public debt market would call for a “mise à niveau” of it’s the main players.* This would require a general effort for a better technical training: participation in organized seminars either locally, or in partnership (co-operation of managers of public debt and bankers of other countries for “training courses in total immersion”, participation in the seminars and meetings organized by certain international banks, training course, etc.). From this point of view, the opening of the banking sector to foreign banks would be particularly useful, because it would enable the exchange of experience and of ideas and the broadening of the financial domestic culture from which Tunisia would have much to gain.

132. *It is necessary to implement the mark-to-market valuation of fixed income assets, not only for government securities, but also for the SICAV, investment funds, etc.* The obligation exists legally but it not applied in practice. It will be necessary nevertheless to act cautiously given that a brutal passage to valuation in market value is likely to reveal losses and depreciations in the portfolios, with the consequences that can be imagined, not only legal, but mainly psychological since the population is not accustomed to this method of valuation.

III.6.3 Phasing in the reforms

133. *The phasing of the reforms would depend on the political agenda of the Government and on the market situation.* However, as a general guideline, the sequencing of reforms could proceed as follows:

- 1) The Treasury should make the distinction between (i) its mission of public authority, where its credibility has been well established, and (ii) its State financing mission as a market player, like the others. In this second mission, the touchstone to its strategy must be the long-term partnership with the financial sector. The task at hand is to work out beneficial opportunities for all market participants, as it is very unlikely that a market could be established by decree.
- 2) The Treasury must build its credibility as "sovereign issuer," particularly in the following areas: (1) issuance predictability (timetable and amounts to be raised), (2) payment of market prices at auctions, and (3) limitation of its issuance to some lines selected in dialogue with the market, so as to achieve a critical amount of stocks outstanding.
- 3) The drafting-up of a new Code of duties and the consultations this work requires are on the way. Particular attention should be paid to :
 - The SVT remuneration within the framework of a long-term partnership with the Treasury.
 - The SVT’s quotation obligation (with limits in centimes rather than in basic points for the BTA) and in reasonable margins to be determined in dialogue with the market and according to development of the secondary market (the current margins of 50 and 20 basis points appear too broad).

- The SVT internal structuring according to capital market needs - installation of a market room.
 - The opening of the secondary market to the competition of all financial intermediaries, which means that banks (and more generally all financial intermediaries) must be able to be active on the secondary market without preliminary authorization.
 - The term of S.VT. mandate should be shortened. Three years seems too long, compared to the practice in "developed" markets of one year or sometimes two.
 - The SVT selection should be reviewed. Not all banks or brokers have the capabilities to become SVT. It is necessary to aim for quality rather than quantity. The Treasury could - and must - be demanding in its choices, assuming that the SVT's activity is lucrative in view of the way they are remunerated.
- 4) Other technical measures (legal framework for repurchase agreements, improvement of compensation system and payment, revision of auction procedures, faster introduction of bids and faster communication of results), etc.) must also be implemented quickly.
 - 5) Initiate a consultation on the structural reforms (opening of the banking sector, reforms of the monetary policy, promotion of long term savings etc). The reforms in these fields are delicate and will not bring their effects before long; it is therefore better to begin or to continue the at an early stage, even if the concretization of the reforms takes time.
 - 6) Make the secondary market transparent:
 - In the immediate future, the Treasury must make public, every day before the market opening, the yield curve which it can establish from transactions declared by banks and S.V.T.
 - Then, it is necessary to quickly set up a general obligation of OTC transactions reporting. Effectiveness will hinge on good sharing of competencies between B.C.T. and C.M.F. The Tunis Stock Exchange could be in charge of this mission of reporting authority.
 - In a short period, reporting of all transactions, not only those related to government bonds, should be generalized.
 - If the compulsory transactions reporting is not enough to increase the secondary market transparency, it would be necessary to adopt more radical measure, such as the banning of intra-group transactions or their centralization on the stock exchange.
 - Reinforce the obligation of quotation in order to increase competition between market players and to enable investors obtain better prices on the market than from their "in-house bank". This reinforcement of obligation must go in parallel with the establishment of secondary market transparency.
 - 7) Re-examine methods of domestic debt opening to foreign investors. An option would be to open a new line of 3-month BTCT to both foreign and resident investors: (i) the difference in notation are less important on the short term than on the long term, (ii) it is important to familiarize foreign investors with the local

market. In this respect, foreign investors prefer initially buying short-term paper. (iii) Limited bond liquidity is less problematic for a 3-month BTCT than for a 12-year BTA, and (iv) The Treasury can maintain control of outstanding stocks. A target of 300 to 400 million DT can be aimed at in a first step. Such an opening to foreign investors could also have a favorable influence on short-term market rates.

- 8) The Treasury must consider the possibility of becoming a player in the interbank market, in order to manage its daily cash transactions.
- 9) When the secondary market starts developing and there is a yield curve, consider the valuation at market value of the fixed income assets for the SICAV, investment funds, etc. Even if this measure should not be immediate, market participants could start its study without delay, in particular with regard to phasing in and the transitional measures.
- 10) Initiate a program of “*mise à niveau*” of the financial culture in the near future, and make plans with regard to financing (bilateral grants or borrowing from multilateral institutions) and practical feasibility (technical assistance, training courses organized by international banks, choice of seminars, etc).

134. Immediate timetable. An action plan that can be carried out immediately can be summarized as follows:

- The Treasury must set up its Internet site, which will be the privileged tool of its relation with the market. To create and update an Internet site is not expensive and does not require a disproportionate workload.
- The Treasury must calculate a yield curve based on data that it receives. It must then make the yield curve public everyday before the markets open (that is important, as no market is interested in a three-day old curve). Examples include a publication in the daily newspaper, on the Tunis Stock Exchange Internet site, the bulletin of quotations of this stock exchange, etc.
- It is necessary to ensure the coordination between B.C.T. and C.M.F. in order (i) to regulate the transactions that are carried out by banks on the OTC and intra-group markets, and (ii) to establish a general mode of transactions "reporting". As for the authority of "reporting", the Tunis Stock Exchange appears to be a good choice, thanks to its good infrastructure and know-how.
- It would be recommended that the new SVT Code of duties goes in the direction outlined above. This does not require large investments but a political will to tie a new partnership with the market.
- Regulations on repurchase agreements transactions. The bill is under discussion in the Parliament, but the Treasury can already anticipate by preparing texts of application and by organizing the “*mise à niveau*” of the players.
- An action plan for the “*mise à niveau*” of financial market players (banks and institutional investors) must be elaborated. Several options are possible: Technical assistance by the Treasury, international organizations; courses and seminars organized by international banks; training sessions

organized by schools and universities; trainings given by private sector specialists.

- The opening of the local market (in DT) to foreign investors should start with the opening of issuance lines of 3-month BTCT without limitation for foreign investors neither on the primary nor on the secondary market. Then, according to the acquired experience, the access could be extended - BTCT to 6 months, etc. By all means, the operationalization of this market opening to foreign investors must be accompanied by an offensive "marketing" of appropriate scale.

IV. Institutions and Information for Effective Debt Management

135. *The two most visible trends in reforming public debt management institutions have been for the governments to: (a) centralize all aspects of public debt management function in one unit (the “Debt Agency”), allowing comprehensive management of all risks of government liabilities; and (b) organize the debt work by function.* Merely two decades ago, even in the most advanced economies, the function of debt management was scattered among government agencies, with domestic and foreign currency debt managed separately. Since different government units focused narrowly on their particular responsibilities, it was impossible to develop a portfolio view of government financial liabilities and the overall strategic risk orientation. The portfolio perspective was further clouded by bureaucratic rivalries. Meanwhile, the rapid pace of financial globalization had exposed the OECD governments to greater range of risks and higher market volatility. Loose fiscal policies led to over-borrowing, while poor debt management further increased the risks of rapidly growing government debt portfolios. By mid-1980s many OECD governments became concerned about excessive levels of debt, and initiated reforms to centralize government debt management operations; and obtain the right mix of market-focused skills. In the past decade, most OECD states have completed such institutional restructuring; more recently, many emerging economies have followed suit.

136. *Functional organization of a government Debt Agency, similar to the organization of an investment institution, has largely replaced traditional organization by product*²⁵. Under it, three operational blocks are distinguished:

- The *Front Office (FO)* implements the debt management strategy day-to-day, including the execution of all transactions. It participates in the design of the funding strategy, and takes the decisions concerning the amount and terms of loans to be obtained (choice of borrowing instruments), as well as new product development. It contacts with the FO of the counter parties (lenders), and concludes the transactions. The FO is the main vehicle for investor relations, marketing to investors both domestic and international, and communication with other Treasuries, the public, the press, etc. If a Government has a substantial on-lending operation, the Front Office would execute it. The FO is also in charge of portfolio management – it implements decisions to rebalance the portfolio bringing it closer to strategic benchmark. The same body may also manage the Treasury’s liquid assets in domestic and foreign currency, and do risk hedging. In some countries the FO manages the daily cash position of the Government in cooperation with the Central Bank.
- The *Middle Office (MO)* takes the lead in developing the debt management strategy. It analyzes public liabilities in terms of risk structure, develops

²⁵ In traditional organizational structure, operationally separate departments would exist for external and domestic debt; fragmentation would often go deeper, with separate departments for investment project loans and borrowing from the financial markets.

borrowing scenarios, and proposes medium-term and in-year risk mitigation measures. If the Debt Agency undertakes the management of financial assets of the government, the Middle Office would formulate asset/liability management methodologies and develop guidelines for onlending.

- The **Back Office (BO)** settles the transactions undertaken by the Front Office. It checks them with counterparties, issues payments instructions, and makes sure that sufficient funds are available in the Treasury account. It maintains debt databases, making sure that information on public debt is correct and up-to-date. It uses its databases to validate data from the FO, send instructions to the netting, clearing and settlement systems, and to report transactions to the Authorities and to the audit bodies. The Back Office would normally takes care of debt accounting and translate debt transactions into budget execution entries.

The boundaries of the *Front Office* and the *Back Office* are quite standard in different national environments. On the contrary, the boundaries of the *Middle Office* in a sovereign debt management structure vary from country to country, reflecting different institutional setup for the broader public finance function.

137. ***The focal point of the Government's Debt Management operation is the Middle Office, whose core competencies are drafting and supervision of the medium-term debt strategy.*** The strategy is adopted by the Government's decision endorsed by the Parliament). The MO translates general debt management objectives into manageable and quantifiable guidelines. The debt strategy is comprised of the primary market programs (what instrument to be issued and/or bought-back, at what maturity, in what currency and in what proportion, when, etc.); communication and marketing strategy; and new product and infrastructure development program. Portfolio risk management objectives (criteria to decide on the choice between domestic and foreign borrowing, on average maturity, duration, maturity profile, etc.) should also be part of the debt strategy. First, simple benchmarks should be developed. More advanced measures like "Budget/Cost-at-Risk", which quantify the government's risk, should be introduced when the environment becomes more sophisticated. The strategy is then translated into general directives to the debt management unit, to be signed by the Minister of Finance. These directives constitute the framework for the debt managers' actions. The MO, in close coordination with the analytical units in the MOF, Ministry of the Economy, and the Central Bank, analyzes the government borrowing policy to assure the consistency with the medium-term macroeconomic, fiscal, and monetary policies. The MO also monitors off-budget risks, particularly related to other public debt issuers such as the municipalities and public enterprises, government guarantee portfolio, and the like. With regards to the contingent liabilities of the State, MO competencies may range from minimal (collecting information) to coercion if necessary, depending on the political set up, the seriousness of risks, and the effectiveness of control instruments. In some countries, the MO monitors and offers advice even to large private sector borrowers.

138. ***The technical competence of the MO that underpins all its other functions lies in risk analysis and management.*** This competence is the key to strategy formulation, especially if the MO uses mathematical models (e.g. benchmark portfolios). In such a model, risks, which cannot be managed, are treated as "constraints". These constraints

must be accurately defined and politically accepted, as these set the boundaries of the feasible debt strategy. Risk analysis must be undertaken in a multiyear environment, and be comprehensive, i.e. cover all types of government liabilities, and risks on the asset side as well.

139. Related to risk analysis is the risk control function of the Middle Office. It should exercise this function both within the broader government and, in particular – vis-à-vis the main borrowing desk of the Government, which is the Front Office. The latter, as all market operators, tends to have a very detailed perspective on each borrowing operation. It also has to make expedient transaction decisions. As a consequence, the Front Office often has neither the capacity nor the time to analyze the entire portfolio of risks, and may exceed prudent risk limits. The Middle Office's role is defining these limits, embed them in the debt strategy document, and to enforce them once this document is adopted. The risk control function should prevent the FO from taking positions deviating from the risk profile approved by the Government. At the same time, the Middle Office assists the FO in developing new funding instruments.

140. The Middle Office also performs reporting on the government debt portfolio. It prepares and publishes the Annual Debt Report (annexed to the budget execution report to the Parliament), quarterly updates, and operational reports to the Management of the Treasury and other decision makers (the Cabinet, the MOF, etc.). A specific form of reporting is the MO's inputs into budgeting: it prepares inputs into the state Budget and updates the MOF regularly on the implementation of its borrowing program. A strong link with the Budget Formulation Department of the MOF is required, to monitor the evolution of the State's funding needs. These projections should include estimates of budget costs of contingent liabilities. Finally, the MO conducts research on public liability management and related issues.

141. The location of other functions may vary. The Back Office usually includes a dedicated information technology group, but it also can be a separate unit. A dedicated legal group is needed, to maintain documentation for foreign debt, syndications, and adaptations to the current legislation with regard to the development of the domestic market, collateralization, and ISDA contracts. These activities may be part of Front Office, Back Office, or it may be located elsewhere and service more than just the Debt Agency. However, an essential requirement for effective formulation and execution of a public debt management strategy is that all three units described above function as one organism.

142. Another important challenge is the degree of autonomy of the government Debt Agency. In the OECD countries, the recent trend has been to increase the operating autonomy of the Debt Agency, in order to protect it from political pressures that may lead to over-borrowing. This shift towards greater operational autonomy was pioneered by Sweden, Denmark and Ireland, and took different forms in different countries. Some developed and emerging market economies have opted for a completely separate debt agency (Hungary, Ireland, New Zealand). This happened simultaneously with the increased independence of central banks, required for clearer delineation between monetary policy and government debt management. Increased autonomy brought about the need to stronger coordination of debt management with other areas of government policy. The government debt portfolio is usually the largest liability portfolio in a

country, and can have major systemic repercussions on the macro/fiscal outcomes, the monetary policies of the central bank, and on the financial markets as a whole. Greater coordination helps prevent negative policy outcomes.

143. *For a given national institutional setup, the degree of autonomy of the government Debt Agency and effectiveness of its institutional model depend on the features of policy and market environment.* Greater autonomy can be justified only where the Debt Agency's actions fully influences the debt policy outcomes, and can be held accountable for its actions. Maximum operational autonomy makes sense only at certain level of maturity of the economy as a whole, and the financial markets in particular. Furthermore, the degree of autonomy of the Debt Agency refers to its ability to implement an agreed strategy - to transact without higher approval while remaining the risk boundaries set by a debt management strategy. Higher-level decisions about these risk boundaries, as well as other key fiscal parameters are made by Ministers of Finance, or policymakers of even higher level.

144. *In Tunisia, debt management practices are strong, but will benefit from greater centralization and functional focus.* Institutional structure existing in Tunisia is akin to what existed in most OECD countries 10-15 years ago, with debt management scattered across several agencies and fragmented along borrowing product lines. The Treasury is in charge of domestic debt issuance; the Ministry for International Cooperation deals with loans from multilateral financial institutions; and CBT handles borrowing on foreign markets. The Treasury exerts overall control over the debt servicing payments for direct government obligations, but does not play an active role in formulating the debt strategy. The Central Bank of Tunisia is the banker of the State, and is responsible for debt service payments in foreign currency. While the CBT's professional capacity is impressive, coordination between the MOF and the CBT in debt management could be strengthened. Tunisia's institutional setup provides adequate control over the individual debt instruments, but does not support the integrated view of public debt portfolio, and could obstruct more active management of its risks.

145. *The need for greater cohesion of different components of Tunisian debt management is evident on the policy, operational, and information levels:*

- *Policy:* The macro-framework for Tunisian debt policy has been strengthened over the past decade, allowing the government to contain its debt burden within sustainable boundaries. However, this macro-framework is formulated for the Five Year Plan, and is too generic and inflexible to supply the debt manager with meaningful operational benchmarks. Efficient debt management requires more flexible policy setting, synchronized with the budget process. This problem can be resolved by greater coordination between the Budget department of the MOF and the Treasury in formulating the borrowing plans as part of the rolling medium-term fiscal framework;
- *Operations:* Debt management is organized by product, allowing robust control over the risks of individual financial products; what is lacking is the adequate control on the overall level of risk in the government debt portfolio. Fragmented and ad hoc perspectives on risk can lead to erroneous choice of borrowing instruments, resulting in the unjustified increase in the cost of borrowing and

portfolio management decisions. This calls for a decisive reformulation of approaches to debt operations: each should be viewed as part of the portfolio of government liabilities;

- *Information and analysis:* While the quality of information on sovereign debt is good overall, it is also fragmented by type of debt and is thus neither sufficient nor up-to-date to support active debt management.

Box IV-1. Evolution of Debt Management Institutions in the OECD Countries

In the 1980s, public debt levels and financial risks in the debt portfolio of various OECD countries rose considerably. This generated a strong impetus toward modernizing and reforming government debt management. DMO functions were consolidated and gradually public debt management was separated from the implementation of monetary policy. Debt management was increasingly seen as an instance of portfolio management having distinct objectives in terms of cost minimization within risk limits. In an attempt to increase the efficiency of debt management, a number of governments delegated the operational dimensions of debt management to separate debt management offices. Other OECD countries did not see the need for a separation between DMO and Ministry of Finance and questioned whether it was advisable to operationally isolate public debt management from public policy. These countries favor a balance between public policy and financial portfolio management in their approach to debt management. Though debt management functions remained in the Ministry of Finance, existing departments were consolidated and modernized and clear objectives, guidelines and accountability mechanisms were adopted. Regardless of the location of the DMO, four issues were identified as crucial for the success of active debt management:

- The formulation of a risk-averse, market-neutral debt strategy in the context of sustainable fiscal policies,
- Creation of mechanisms for successful delegation of debt management function to and accountability to the Ministry of Finance and Parliament.
- Strengthening institutions and cadre of debt management for both financial portfolio management and sustainable debt policy;
- Modernizing debt information systems.

In Hungary, two important institutions were created in 1996, to improve budget execution and debt operations: the Treasury and the Debt Management Agency (*Allamadósság Kezelő Központ, ÁKK*). The ÁKK prepares the financing strategy of the Treasury, which is approved by the Ministry of Finance, and carries out the borrowing decisions. It has two other important functions: organizing the domestic market and providing information for market participants. The management of the foreign portion of the public debt was transferred from the National Bank of Hungary (NBH) to the ÁKK in 1997, after one year of discussions and preparations.

The Hungarian State Treasury is an independent organization operating under the supervision of the Minister of Finance. In practice, the Treasury and its branch network was built around budget implementation functions that were carried out by the State Development Institute and the NBH. The ledger system of NBH, containing the accounts of government agencies, was transferred to the Treasury. To facilitate the recruitment and retention of qualified staff, the Treasury obtained a special salary scale for its public employees and absorbed experienced professionals from the State Development Institute, the NBH and its 19 county directorates.

In March 2001, in a move to modernize debt management, ÁKK was established as a joint stock company, organizationally independent but under the supervision of the Ministry of Finance. The tasks of the new agency include, among others, the fine-tuning of instruments for the issuing of public debt, and the systematic use of benchmarking in order to minimize risk and costs associated with securities, both denominated in HUF and in foreign exchange. The ÁKK monitors debt risks in order to ensure the long-term sustainability of the Hungarian debt.

Source: *Source:* Currie et al. (2003), Buzas, L. (2002).

146. ***Most important, the risk management function is insufficiently developed in Tunisia.*** While each of the government agencies responsible for a certain type of debt conducts assessment of risks present in it, these assessments are aggregated only in very general exposure indicators prepared by the MOF for the budget execution reports and annually for the Budget Economique. Some risks (for example, those of contingent liabilities) are not quantified at all.

147. ***A government risk management strategy is only as good as the information used to formulate it.*** Tunisia's government finance information system (CFIS) is one of the best among countries at similar level of economic development. Databases on individual classes of government debt are modern, and support well transaction control and standardized reporting. On the external debt side, the Central Bank of Tunisia and the Ministry of Finance have sponsored the development of a centralized database (SIADE), which is among the best practices in the emerging market economies. The system has a modern open architecture design and is supported by a dedicated team of system specialists. SIADE covers all categories of public debts, including those not guaranteed by the state, as well as onlending operations. It includes a strong forecasting module, which generates loan-by-loan cash flow profiles. The system allows generating a variety of aggregate reports. However, there exists no unified debt database; consolidated debt reports are difficult to compile and even more difficult to customize, which makes it impossible to proactively respond to the changing market conditions. While SIADE meets most of the transaction management needs, government experts express concerns about the quality of information, particularly with regards to the disbursements under project loans. This information is supposed to be provided by the sector ministries and entered in the database by its administrators – Centre Informatique du Ministère des Finances (CIMF). Sector ministries often delay such updates, which affect the reliability of SIADE's forecasts.

148. ***Analytical systems supporting debt strategy formulation are insufficient for active management of Tunisia's risk exposures.*** SIADE does not have analytical capacities beyond cash flow forecasting for individual loan instruments. Only nominal valuation of loan instruments is supported, and no mark to market valuation is available. The report generation facility cannot easily create customized reports required for active debt management. On the domestic debt side, both information requirements and systems implemented are quite basic; data are kept and core parameters are calculated in simple spreadsheets. Ministry of Finance does not regularly prepare debt sustainability scenarios, relying in this on other agencies such as the CBT, Ministry of International Cooperation, and Ministry of Economic Development. The existing debt information system does not allow quantifying guarantee risk; no quantitative procedures exist to evaluate the risks of onlending operations and the risks of non-guaranteed debts of the broader public sector. Private external debt, which will have a growing impact of the balance of payments trends, is tracked by the CBT, but this information is not included into the debt sustainability scenarios. Another important deficiency is the lack of consolidation for the total government portfolio (external plus domestic) except on the highest level of

aggregation, and only in nominal figures. Mark-to-market valuation of the whole portfolio is impossible²⁶.

A BLUEPRINT FOR INSTITUTIONAL REFORM

149. *The Government of Tunisia realizes that active debt management strategy begins with institutional change.* One of the key reasons for preparing this Report was the need to determine viable institutional reforms, required to bring debt management up to the new level of efficiency. The mandates of key debt institutions must be reinforced; and they should be given more flexibility in conducting their operations. A new government function for risk management must be created, and a sustainable medium-term debt strategy must be formulated, relying upon clearly defined quantitative benchmarks. The performance of government debt managers must be assessed against these benchmarks. These needs can be met most efficiently via the establishment of a specialized Debt Agency, which will manage all contractual liabilities of the Tunisian government, and will monitor fiscal risk from the general public sector and beyond.

150. *For the Debt Agency to be effective, it should put its risk mitigation expertise at the service of senior government decision-makers.* In the international practice, a combination of interagency body setting the strategy (High Debt Committee) and a technical body supplying decision support (Debt Agency) has delivered the best risk mitigation results. It is thus advisable to establish a senior-level High Debt Committee, and have the Debt Agency submit its proposals and assessments to this Committee. The High Debt Committee should have representation of all relevant government institutions, including the Ministry for Development and International Cooperation, as well as the BCT. The Minister of Finance as the top official should chair it personifying the sovereign borrowing authority. CBT's active participation in the High Debt Committee would guarantee good coordination between monetary policy and government debt management.

151. *In Tunisia, the proposed Debt Agency can only be semi-autonomous (most likely attached to the MOF or the Treasury), since government debt management is closely integrated with broader public policy, and thus the Agency cannot be held fully accountable for its actions.* Tunisian economy is less diversified and more vulnerable to external shocks than a typical OECD economy. The fiscal sustainability stance remains vulnerable, particularly on the external side. In the event of serious external shock, Tunisia's debt service is likely to jump substantially. Another constraint is limited recourse to domestic borrowing. On both counts, Tunisian debt managers face real limitations on what active market operations they can undertake to change the composition and the risk profile of their debt portfolio. The arrangement under which a

²⁶ This observation should not be interpreted as a recommendation of unifying all debt information (both external and domestic) in one database. International experience has shown that such integration is very costly and not necessarily efficient. One off-the-shelf solution advertised recently is a new version of CS-DRMS, shipped by the Commonwealth Secretariat, which can register both external and domestic debt. Implementation record of this version of CS-DRMS is still too short for conclusions about its efficiency in comprehensive debt portfolio recording. An alternative solution would be to equip the analytical modules with specially designed "data extraction channels" that would query the central databases and generate information in the format meaningful for portfolio risk analysis.

semi-autonomous Debt Agency reports to the High Debt Committee chaired by the Minister of Finance would offer an optimal combination of policy centralization and operational flexibility.

152. ***The preferable path of reform would be to establish the Debt Agency in one move.*** The Tunisian Government already has formidable Back and Front office units, which should be reassigned to the new Debt Agency. However, the nucleus of the Debt Agency would be the newly established dedicated risk management unit - the Middle Office. Building up this risk control unit is the key priority. Since the quality of risk control depends on the quality of debt information, it is also important to reassign to the Debt Agency the debt-recording units (Back Office), which are now part of the Treasury. The Front Office function now exists as several desks, which work with different classes of lenders and have to follow distinct procedures for each of them. For a while, they may be allowed to operate in the current environment – provided their activities are subject to risk control exercised by the Debt Agency. Eventually, the Front Office desks will need to be reassigned to the Debt Agency, and the sooner this happens, the better.

153. Within the new structure of the Debt Agency, ***the Middle Office will be responsible for drafting a comprehensive medium-term liability management strategy, and submitting it to the High Debt Committee for review and approval.*** Once the Government endorses the medium-term strategy, the Middle Office should supervise its implementation. In performing this function, it should have sufficient authority to look into borrowing and debt management practices of all government agencies, and to evaluate risks to the central budget stemming from these operations. As priority tasks, the MO should: (a) prepare weekly reports to the Management of the Treasury MOF, CBT, and Ministry of Economic Development and cooperation, covering the whole portfolio of public liabilities, and presenting a comprehensive and detailed risk analysis of this portfolio; and (b) publish quarterly debt reports, as the main reporting vehicle to the broad investor/creditor community, the legislature, and the broad public. To make these reports authoritative, the Middle Office should undertake regular (at least quarterly) consolidation of all relevant debt data, including on contingent liabilities of the government, public sector debts on onlending operations. This will facilitate regular updating of debt sustainability scenarios and portfolio benchmarks. The Middle Office should also implement quantitative analytical systems supporting the measurement and forecasting of various portfolio risks. ***In sum, the Middle Office should not engage into individual debt transactions, but serve as a risk control “watchdog”.***²⁷

154. ***Interagency coordination is crucial, particularly between the Debt Agency, the Treasury and the MOF.*** This is required for smooth coordination between treasury cash management and liability management: inefficient cash management practices often distort debt issuance and increase the cost of borrowing to the Government. Such coordination allows improving other portfolio management functions, in particular – when the debt management unit also manages the Government’s financial assets. The Budget Department of the Ministry of Finance and the Ministry of Economic

²⁷ It is advisable that the Middle Office’s risk mitigation mandate extends to commercial public enterprises, since in the event of their excessively risky behavior the Government balance sheet may be exposed even in the absence of an explicit guarantee. In Denmark, for example, the Crown’s Debt Manager had the right to advise even private sector borrowers on the timing and terms of their external debt issuance.

Development are other important partners of the Debt Agency: government debt strategy must be set and implemented in the context of medium-term fiscal framework. Of even greater importance is the Debt Agency's coordination with the CBT. As the Front Office functions are eventually reassigned to the Debt Agency, the Central Bank will limit its role in state debt management to providing banking services. The need for the harmonization of monetary policy and government debt management will remain as strong as ever, requiring regular - at least monthly - consultations between the Debt Agency and the CBT. The development of the domestic government debt market would be impossible without the Central Bank taking the lead in strengthening the market infrastructure and encouraging the development of money and repo markets.

155. ***Strong capacity for active debt management requires an adequate system of incentives.*** Tunisian government debt managers should be offered attractive remuneration structures and other incentives, such as training programs and improving promotion prospects. The skills mix required by the Debt Agency is very close to the skills mix needed in private investment banks, investment companies etc., and the Debt Agency will be competing for talent with the private sector. The Agency's salary levels should reflect the importance and complexity of the Debt Agency jobs in managing the largest liability portfolio in the country. It should, therefore, have greater autonomy in managing its pay scales and hiring procedures. The hiring/pay scale arrangements for the newly established Debt Agency should be no less, and possibly even more flexible as those existing for the CBT, or the Cour des Comptes.

156. ***Institutional reform requires strong political leadership and modern legal framework.*** The reform would entail deep shifts in the mandates of various government agencies. Some may raise objections to these shifts, arguing that the long-established government practices "work well enough". Strategic vision and leadership is needed to escape bureaucratic impasse, and to realize long-term gains from the new institutional structures. A coherent legal framework, giving the newly created Debt Agency adequately strong risk control mandate, must shore up the envisaged reforms. It is advisable to pass a new Law on Public Liability Management, endorsing changes in institutions and processes, defining the roles of different government agencies, and establishing broad efficiency criteria against which the new debt management practices will be evaluated.

ANNEX 1. MEDIUM-TERM DEBT SUSTAINABILITY SCENARIOS

BASE CASE SCENARIO

TABLE 1: MACROECONOMIC FUNDAMENTALES

	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
<i>in %</i>											
Growth Rate of GDP	1.9	5.4	6.0	5.7	5.6	5.6	5.6	5.6	5.6	5.6	5.7
Consumption Growth	4.8	5.5	5.4	5.6	5.8	5.8	5.9	5.7	5.3	5.1	4.8
Public Consumption	5.2	4.9	6.0	5.7	5.6	5.6	5.6	5.6	5.6	5.6	5.7
Private Consumption	4.7	5.7	5.3	5.6	5.9	5.9	6.0	5.7	5.3	5.0	4.7
Investment Growth (GDI)	-4.4	7.6	7.6	6.9	6.5	6.5	6.5	6.5	6.5	6.5	6.5
Import (GNFS) growth	-1.5	8.8	7.8	7.5	7.3	7.5	7.7	7.8	7.8	7.5	7.5
Export (GNFS) growth	-2.8	7.7	8.1	7.1	6.6	6.8	6.9	7.4	8.0	8.0	8.5
Inflation (p.a.)	2.7	2.6	2.5	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4
<i>in % of GDP</i>											
Real Interest Rate Foreign	2.1	2.5	1.9	2.1	2.3	2.3	2.4	2.5	2.7	3.0	3.3
Real Interest Rate Domestic	3.1	3.5	3.7	3.7	3.7	3.7	3.7	3.7	3.7	3.7	3.7
Investment	26.2	26.7	27.1	27.4	27.6	27.9	28.1	28.4	28.6	28.8	29.1
Exports	44.7	45.6	46.4	46.9	47.2	47.7	48.2	49.0	50.1	51.2	52.5
Imports	48.8	49.7	50.3	50.9	51.7	52.6	53.6	54.7	55.8	56.8	57.7
CAB (excl all official transfers)	-3.5	-3.5	-2.9	-2.8	-3.1	-3.3	-3.7	-4.0	-4.1	-4.0	-3.7
Non interest current account	0.9	0.6	1.0	0.8	0.4	0.0	-0.5	-0.8	-0.9	-0.7	-0.3

TABLE 2 : GOVERNMENT FINANCES

	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
<i>in %</i>											
Direct Taxes(Other than SSC)	6.7	6.9	6.9	7.0	7.0	7.0	7.1	7.1	7.1	7.1	7.1
social security contributions	5.1	5.1	5.1	5.1	5.1	5.1	5.1	5.1	5.1	5.1	5.1
Taxes-International Trade	2.0	1.9	1.7	1.4	1.1	0.9	0.8	0.8	0.8	0.8	0.8
Others Indirect Taxes	12.7	12.6	12.6	12.6	12.6	12.6	12.6	12.6	12.6	12.6	12.6
Non Tax Revenue	3.1	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7
privatization receipts	1.1	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Revenues (excl. grants)	30.8	29.4	29.1	28.9	28.6	28.4	28.3	28.3	28.3	28.3	28.3
Consumption	13.9	13.7	13.7	13.7	13.7	13.7	13.7	13.7	13.7	13.7	13.7
Interest Payments	3.1	3.1	2.8	2.7	2.7	2.7	2.7	2.8	2.8	2.9	2.9
<i>Subsidies</i>	2.5	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4
Current transfers	5.4	5.5	5.4	5.4	5.4	5.4	5.4	5.4	5.4	5.4	5.4
Current Expenditures	24.9	24.7	24.3	24.2	24.2	24.2	24.2	24.2	24.3	24.4	24.4
Capital Expenditures	8.4	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0
Total Expenditures	33.2	32.8	32.3	32.2	32.2	32.2	32.2	32.2	32.3	32.4	32.4
Deficit excluding grants and privatization	-3.6	-3.5	-3.2	-3.3	-3.6	-3.8	-3.9	-3.9	-4.0	-4.0	-4.1
PRIMARY DEFICIT (excl. grants and privatizat	-0.5	-0.4	-0.4	-0.6	-0.8	-1.0	-1.1	-1.1	-1.1	-1.1	-1.1

TABLE 3 : DEBT

	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
<i>in %</i>											
memo: Total debt	61.3	59.6	57.7	56.5	55.8	55.3	54.9	54.6	54.4	54.0	53.8
memo: Domestic Public debt	22.5	21.8	21.5	21.0	21.1	22.8	24.0	25.7	27.1	28.6	29.9
memo: Foreign Public debt	38.9	37.8	36.2	35.5	34.7	32.5	30.9	29.0	27.3	25.4	23.9
Private Debt	12.5	11.8	10.2	9.1	8.8	10.3	11.7	14.0	16.1	18.5	20.0
Total Foreign public and private debt	51.3	49.6	46.4	44.6	43.5	42.8	42.7	43.0	43.5	43.9	43.9
Debt Service / Total Exports	14.7	13.2	14.1	13.1	12.5	11.7	9.8	11.3	12.5	11.3	11.6
Debt Service	7.4	6.8	7.3	6.8	6.6	6.2	5.2	6.1	7.0	6.4	6.7

LOW CASE SCENARIO

TABLE 1: MACROECONOMIC FUNDAMENTALES

	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
<i>in %</i>											
Growth Rate of GDP	1.9	5.4	6.0	0.9	0.2	1.0	2.1	2.9	3.8	4.8	5.7
Consumption Growth	4.8	5.5	5.3	3.4	1.4	2.5	3.3	3.9	4.1	4.2	5.2
Public Consumption	5.2	4.7	6.0	2.7	2.6	2.6	2.6	2.7	2.6	2.7	2.6
Private Consumption	4.7	5.7	5.1	3.6	1.2	2.5	3.4	4.1	4.4	4.5	5.7
Investment Growth (GDI)	-4.4	7.6	8.4	-3.6	-0.6	1.8	2.6	3.5	4.2	5.0	6.1
Import (GNFS) growth	-1.5	8.8	8.0	-2.0	-1.0	3.0	4.5	5.6	7.1	6.7	7.6
Export (GNFS) growth	-2.8	7.7	8.1	-4.0	-3.0	0.0	2.5	4.0	7.0	8.1	8.6
Inflation (p a.)	1.6	1.8	2.2	2.2	2.4	2.4	2.5	2.5	2.4	2.4	2.4
<i>in % of GDP</i>											
Real Interest Rate Foreign	2.1	2.5	1.9	2.1	2.3	2.3	2.4	2.5	2.7	3.0	3.3
Real Interest Rate Domestic	3.1	3.5	3.7	3.7	3.7	3.7	3.7	3.7	3.7	3.7	3.7
Investment	26.2	26.7	27.3	26.1	25.9	26.1	26.2	26.4	26.5	26.5	26.6
Exports	44.7	45.6	46.4	44.0	42.6	42.1	42.2	42.6	43.9	45.3	46.6
Imports	48.8	49.7	50.4	48.6	47.9	48.9	50.1	51.4	53.1	54.1	55.2
CAB (excl all official transfers)	-3.5	-3.5	-3.0	-3.3	-3.9	-5.0	-6.0	-6.9	-7.4	-7.3	-7.3
Non interest current account	0.9	0.6	0.9	0.5	0.0	-1.2	-2.0	-2.8	-3.1	-2.7	-2.4

TABLE 2 : GOVERNMENT FINANCES

	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
<i>in %</i>											
Direct Taxes(Other than SSC)	6.7	6.9	6.9	6.5	6.3	6.5	6.7	6.8	6.9	7.0	7.0
social security contributions	5.1	5.1	5.1	5.1	5.1	5.1	5.1	5.1	5.1	5.1	5.1
Taxes-International Trade	2.0	1.9	1.7	1.3	1.1	0.9	0.8	0.8	0.8	0.9	0.9
Others Indirect Taxes	12.7	12.6	12.6	12.6	12.6	12.6	12.6	12.6	12.6	12.6	12.6
Non Tax Revenue	3.1	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7
privatization receipts	1.1	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Revenues (excl grants)	30.8	29.4	29.1	28.3	27.8	27.9	28.0	28.1	28.2	28.4	28.4
Consumption	13.9	13.7	13.7	13.9	14.2	14.5	14.5	14.5	14.4	14.1	13.7
Interest Payments	3.1	3.1	2.8	2.9	3.0	3.2	3.4	3.6	3.8	4.0	4.0
<i>Subsidies</i>											
Current transfers	5.4	5.5	5.4	5.4	5.4	5.4	5.4	5.4	5.4	5.4	5.4
Current Expenditures	24.9	24.7	24.2	24.5	25.1	25.5	25.8	25.9	26.0	25.8	25.5
Capital Expenditures	8.4	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0
Total Expenditures	33.2	32.7	32.2	32.5	33.1	33.5	33.8	33.9	34.0	33.8	33.5
Deficit excluding grants and privatization	-3.6	-3.5	-3.2	-4.2	-5.2	-5.6	-5.8	-5.8	-5.8	-5.4	-5.1
PRIMARY DEFICIT (excl grants and privatization)	-0.5	-0.4	-0.4	-1.4	-2.2	-2.4	-2.3	-2.2	-1.9	-1.5	-1.1

TABLE 3 : DEBT

	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
<i>in %</i>											
Total Public debt	61.3	59.6	57.7	59.9	63.6	67.1	69.9	72.2	73.6	73.7	73.2
Domestic Public debt	22.5	21.8	21.5	22.7	25.3	29.6	33.0	36.7	39.6	41.9	43.1
Foreign Public debt	38.9	37.8	36.2	37.2	38.3	37.5	36.9	35.5	34.1	31.9	30.1
Private Debt	12.5	11.8	10.3	9.1	8.9	11.8	15.1	19.8	24.8	29.7	33.6
Total Foreign public and private debt	51.3	49.6	46.5	46.3	47.3	49.3	52.0	55.3	58.8	61.5	63.7
Debt Service / Total Exports	14.7	13.2	14.1	14.4	14.9	14.8	12.7	15.1	17.5	16.5	17.5
Debt Service	7.4	6.8	7.3	7.2	7.2	7.2	6.2	7.5	8.9	8.6	9.3

FISCAL ADJUSTMENT SCENARIO

TABLE 1 : GOVERNMENT FINANCES

	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
<i>in %</i>											
Direct Taxes(Other than SSC)	6.7	6.9	6.9	7.0	7.0	7.0	7.1	7.1	7.1	7.0	7.0
social security contributions	5.1	5.1	5.1	5.1	5.1	5.1	5.1	5.1	5.1	5.1	5.1
Taxes-International Trade	2.0	1.9	1.7	1.3	1.1	0.9	0.8	0.8	0.8	0.9	0.9
Others Indirect Taxes	12.7	12.6	12.6	12.6	12.6	12.6	12.6	12.6	12.6	12.6	12.6
Non Tax Revenue	3.1	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7
privatization receipts	1.1	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Revenues (excl. grants)	30.8	29.4	29.1	28.8	28.6	28.4	28.4	28.4	28.4	28.4	28.4
Consumption	13.9	13.7	13.7	13.5	13.5	13.4	13.1	12.7	12.3	11.7	11.1
Interest Payments	3.1	3.1	2.8	2.9	3.0	3.1	3.2	3.2	3.2	3.2	3.1
<i>Subsidies</i>	2.5	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4
Current transfers	5.4	5.5	5.4	5.4	5.4	5.4	5.4	5.4	5.4	5.4	5.4
Current Expenditures	24.9	24.7	24.2	24.2	24.3	24.3	24.1	23.8	23.3	22.8	22.0
Capital Expenditures	8.4	8.0	8.0	7.9	7.7	7.6	7.5	7.4	7.3	7.1	7.0
Total Expenditures	33.2	32.7	32.2	32.1	32.0	31.9	31.5	31.1	30.6	29.9	29.0
Deficit excluding grants and privatization	-2.8	-3.6	-3.4	-3.5	-3.7	-3.7	-3.5	-3.1	-2.5	-1.7	-0.9
PRIMARY DEFICIT (excl. grants and privatiz	-0.5	-0.4	-0.4	-0.4	-0.5	-0.3	0.0	0.4	1.0	1.8	2.5

TABLE 2 : DEBT

	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
<i>in %</i>											
Total Public debt	61.3	59.6	57.7	58.9	60.9	62.3	62.8	62.3	60.8	57.8	54.0
Domestic Public debt	22.5	21.8	21.5	21.7	22.6	24.8	25.9	26.8	26.8	25.9	23.9
Foreign Public debt	38.9	37.8	36.2	37.2	38.3	37.5	36.9	35.5	34.1	31.9	30.1
Private Debt	12.5	11.8	10.3	8.1	6.3	7.1	8.3	10.7	13.1	15.4	16.8
Total Foreign public and private debt	51.3	49.6	46.5	45.3	44.6	44.7	45.2	46.2	47.2	47.3	46.8
Debt Service / Total Exports	14.7	13.2	14.1	14.1	14.2	13.8	11.1	12.6	13.9	12.0	11.9
Debt Service	7.4	6.8	7.3	7.2	7.2	7.0	5.6	6.5	7.4	6.5	6.6

ANNEX 2. FISCAL RISK BEYOND THE BUDGET

DEFINING QUASI-FISCAL ACTIVITIES AND HIDDEN DEFICITS

Quasi-fiscal activities (QFAs) can be defined as activities not explicitly executed via budgetary mechanisms, but that have, or may have in the future, measurable fiscal implications. In analyzing QFAs, we apply a comprehensive methodology proposed by Brixi and Schick (2002), classifying risks from government liabilities into four categories. Government *direct explicit liabilities* are obligations that fall due with certainty and are defined by law or contract. Government *direct implicit liabilities* represent a political, rather than legal commitment of the government that will occur with certainty. They arise as a presumed consequence of public expenditure policies. *Explicit contingent liabilities* represent the government's legal obligations to make a payment if a particular event occurs, such as state guarantees for non-sovereign borrowing. Finally, *implicit contingent liabilities* are those that are not officially recognized until a failure occurs. The trigger, the value at risk, and the size of the government outlay are uncertain for this latter category. The following table offers a systematic view of different types of government liabilities:

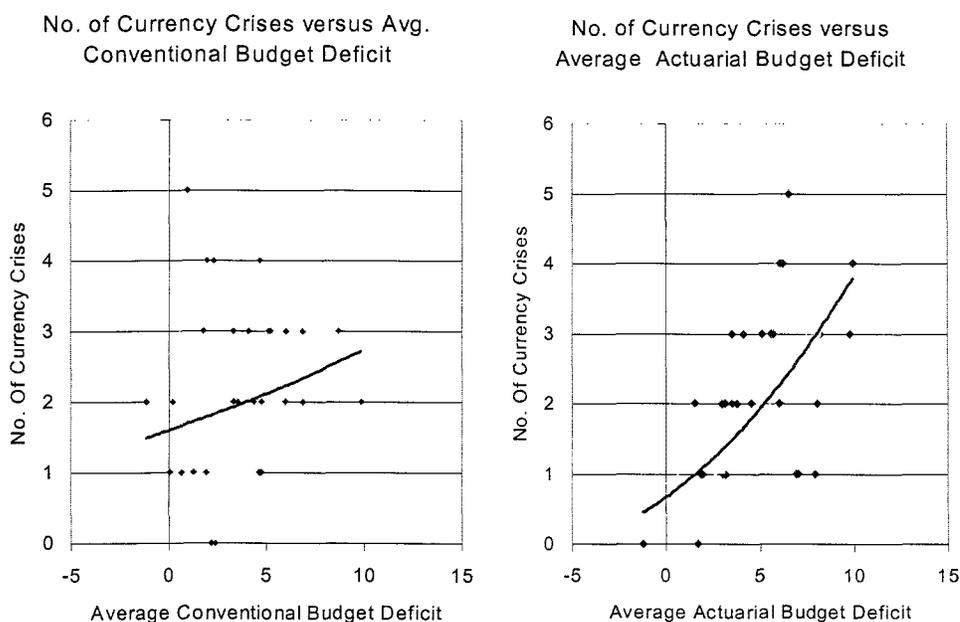
<i>Liabilities</i> ^a	<i>Direct (obligation in any event)</i>	<i>Contingent (obligation if a particular event occurs)</i>
Explicit Government liability is recognized bylaw or contract	<ul style="list-style-type: none"> ▪ Foreign and domestic sovereign borrowing (loans contracted and securities issued by the central government) ▪ Expenditures by budget law ▪ Budget expenditures legally binding in the long term (civil service salaries, civil service pensions) 	<ul style="list-style-type: none"> ▪ State guarantees for nonsovereign borrowing and obligations issued to subnational governments and public and private sector entities (development banks) ▪ Umbrella state guarantees for various types of loans (e.g. mortgages, students studying agriculture, and small businesses) ▪ State guarantees (for trade and the exchange rate, borrowing by a foreign sovereign state, private investments) ▪ State insurance schemes (for deposits, minimum returns from private pension funds, crops, floods, war risk)
Implicit A "moral" obligation of the government that reflects public expectations and/or pressures by interest groups	<ul style="list-style-type: none"> ▪ Future recurrent costs of public investment projects ▪ Future public pensions (as opposed to civil service pensions) if not required by law ▪ Social security schemes if not required by law ▪ Future health care financing if not specified by law 	<ul style="list-style-type: none"> ▪ Default of a subnational government and public or private entity on non-guaranteed debt and other liabilities ▪ Cleanup of the liabilities of privatized entities ▪ Bank failure (beyond state insurance) ▪ Investment failure of a non-guaranteed pension fund, employment fund, or social security fund (social protection of small investors) ▪ Default of the central bank on its obligations (foreign exchange contracts, currency defense, balance of payments stability) ▪ Bailouts following a reversal in private capital flows ▪ Residual environmental damage, disaster relief, military financing, and the like

Quasi-fiscal activities give rise to hidden (off-budget) deficits, that cannot be captured by conventional indicators of fiscal deficit, which represent a flow concept. budgeting and reporting practices. To redress this deficiency, a recent study by Kharas and Mishra

(2001) introduce a notion of **actuarial deficit**, defined as the change in the **stock** of government liabilities, i.e. the entire stock of public debt and the money base:

$$Dta = (Bt - Bt-1) + (Mt - Mt-1),$$

where Dta is the actuarial budget deficit in period t ; Bt is the stock of the public debt; and Mt is the base money. The difference between the actuarial and the conventional deficits is the hidden (off-budget) deficit. On the sample of 32 countries, Kharas and Mishra demonstrated that there exists a much closer link between the level of actuarial deficits and macroeconomic outcomes (approximated by the incidence of currency crises), than between the conventional deficit and these macro/fiscal outcomes. The following figures illustrate this:



Source: Kharas H., Mishra, D. (2001)

QFAs are a major problem in both developing and developed countries, since they utilize public resources in an inefficient and non-transparent manner, undermining accountability and economic growth. Often, as the budget deficit is being brought under control, on-budget subsidies are replaced with quasi-fiscal ones, reflecting the unwillingness and/or inability of governments to deny support to structurally or socially important enterprises, regardless of their performance. Quasi-fiscal activities generate unpredictable ex post outflows that crowd out vital public spending, particularly in the social sectors. Typically, connected and privileged groups use their high leverage to distort resource flows to their advantage via quasi-fiscal instruments. Off-budget operations can cause a major blow to the transparency of public spending. The civil society (as well as the decision-makers) may be unaware that contingent obligations are driving the fiscal sphere beyond sustainable boundaries. The poor and disadvantaged

social groups in whose name some of the quasi-fiscal operations are being conducted (e.g. investment projects in poor regions that benefit from government guarantees) have no means to cope with the fallout of these operations once the fiscal crisis erupts.

Quasi-fiscal operations are particularly dangerous for emerging economies. Governments in these countries are naturally tempted to issue contingent liabilities, given that they are constrained in issuing additional direct obligations by their weak creditworthiness. The pressure to engage in quasi-fiscal activities comes from the vast need to generate growth and provide social protection with scarce available resources.

Traditional cash-based budgeting and accounting practices encourage the governments to use quasi-fiscal tools, since their cost appears to be zero under these practices, making quasi fiscal instruments politically more attractive than cash expenditure items. A particular weakness of conventional budgets is that off-budget activities often create long-term obligations, while traditional budgets reflect only obligations incurred during only one year, and only from the narrow cash flow perspective. Cash flow budgeting typically enables fiscal opportunism: contingent liabilities are not recognized in the budget until the trigger (risk) event occurs. Conventional budgeting creates incentives to shift the costs to future generations, and/or from one social group to another, thus encouraging uncontrollable spending.

APPROACHES TO THE MANAGEMENT OF QUASI-FISCAL RISKS

The first condition is to identify, classify, and understand the fiscal risks facing the government. This Comprehension of the fiscal risks and their consequences will encourage the government to avoid risks that are bound to surface in a politically meaningful time horizon. For risks that extend beyond that timeframe, achievement of fiscally sound behavior may depend on coercion. In particular, policymakers are more likely to gravitate to fiscally sound decisions if the media, the public, investors, credit-rating agencies, and multilateral institutions understand the government's fiscal performance in its entirety and if there are sanctions when the government exposes the state to excessive risks and conceals those risks. To achieve sound fiscal performance, the government needs to include in its fiscal analysis and decision-making the fiscal risks relating to future possible obligations of the state and to consider those fiscal risks in the context of its risk preference, risk financing, and risk management capacities. The following steps are critical.

Consider fiscal performance in full, that is, beyond the budget and debt. Fiscal analysis is complete only if it factors in the cost of the implicit subsidies in the government's contingent support programs. In particular, the government cannot separate the analysis of its fiscal position from the obligations it has undertaken outside the budget. Moreover, the government may have mismanaged some institutions to finance and implement its policies outside the budget system. A string of years with a balanced budget and low public debt suggests neither that the government has been fiscally prudent nor that there will be fiscal stability. In deciding between alternative forms of support, the government needs to consider the medium-term fiscal impact and allocative and operational efficiency of programs pursued outside the budget to the same extent as with the budget.

Medium-term fiscal forecasts, the budget itself, and government financing and borrowing plans are truly viable only if they provide for contingent and other fiscal risks.

Identify, classify, and analyze all fiscal risks in a single portfolio. To understand and prepare for the entire range of potential fiscal pressures, policymakers will have to take stock of all programs and promises and identify and classify the main sources of fiscal risks, as shown in the fiscal risk matrix. For each item of the fiscal risk matrix and in order of significance, the government needs to analyze the risk factors and ways to control and reduce its exposure to the risks. Qualitative analysis of risks would help the government formulate and design sound new programs and promises.

The government should consolidate the stock of contingent liabilities into a single portfolio, along with state debt and other public liabilities, so that it can evaluate correlations, sensitivity to macroeconomic and policy scenarios, and overall risk exposure. A single portfolio allows the government to relate its contingent liabilities to its comprehensive risk strategy and guidelines regarding risk exposure, asset and liability management, hedging, and benchmarking. As an input into the analysis of risk exposure, the government would also analyze information about budget arrears, state guarantees, state insurance programs, subnational government borrowing, obligations of state-owned and state-guaranteed institutions, effects of private capital flows, and similar factors. In contrast to the deficit and debt constraints, indicators reflecting a comprehensive analysis of the government's exposure to fiscal risks would have greater predictive value for fiscal stability.

Determine the government's optimal risk exposure and reserve policy based on its risk preference and risk management capacity. The government needs to base its risk and reserve strategy on its overall risk exposure, risk preference, and ability to manage risk and absorb contingent losses. Ideally, the risk strategy would be tied to the risk preference of the median voter. Similarly, the government would assess new programs based on their marginal impact on overall risk exposure and fiscal outlook. It would agree to further contingent and implicit forms of financial support only to the extent it is able to evaluate, regulate, control, and prevent the risks. If the government has a low capacity to evaluate and manage risks, the best approach is to favor direct subsidies and provision of services rather than guarantees. That is, assuming that the government's intervention in a particular area is justifiable, the government would opt for budgetary financing of its intervention rather than ensuring that particular outcomes will be delivered by the private sector. To this end the government has to enact guidelines for prudent and sound fiscal management.

An institutional framework for public finance will encourage the government to pursue sound fiscal performance only if it encompasses both direct and contingent fiscal risks. A framework for public finance management that ignores the future fiscal implications of contingent liabilities and other off-budget commitments will only make such forms of government support look inexpensive and politically attractive. An adequate institutional framework requires that the government treat any non-cash program involving a contingent fiscal risk as it does other budgetary or debt items from the viewpoint of aggregate fiscal stability and allocative and technical efficiency, control, public

disclosure, and accountability. Rules for issuing, monitoring, and handling state guarantees and insurance programs and for monitoring and financial management of public, state-guaranteed, and subnational government institutions are also needed. As the role of the state transforms from direct provision of services to guarantees against residual risks, governments need to follow the example of the private sector in deepening their capacities for fiscal analysis and management beyond the state budget and debt.

Internalize and disclose the full fiscal picture. The rules and practices applied in the budget process, financial management, and public accountability framework determine how much flexibility the government has to assume immediate and future direct and contingent unbudgeted obligations. Optimally, government choices will reflect qualitative and, where possible, quantitative evaluation of the future outlays and risks associated with alternative forms of government support, including programs outside the budget such as guarantees and activities of state-guaranteed agencies.

To address the problem of government accountability and fiscal discipline outside the budget, public disclosure is more important than full-fledged accrual-based accounting, budgeting, and risk measurement systems. Particularly for governments with lower institutional capacities, the system should require them to assess risk factors, make rough provision for contingent risks in the budget, and publish a statement of contingent liabilities and overall risk exposure. Such a system is more sensible than the optimal institutional framework, which involves accrual-based accounting and budgeting standards and sophisticated risk measurement methodologies.

Public disclosure of fiscal information extending beyond the budget and direct debt enables the public and markets to monitor the government's full fiscal performance, including the fiscal risks accumulated outside the budget. Market agents such as investors and credit rating agencies are then able to take both direct and contingent fiscal risks into account in their analysis and investment decisions. Their ability to do so in turn indirectly encourages budgetary and overall fiscal discipline. In addition, greater fiscal transparency facilitates parliamentary scrutiny and monitoring by the market, particularly by investors and sovereign credit rating agencies, and by international institutions.

Monitor, regulate, and disclose fiscal risks to the public and private sectors. Governments reduce the fiscal risks when they strive to prevent market failures and minimize the moral hazard associated with their programs, commitments, and residual responsibility for market failures. To reduce moral hazard and failures in the markets, the government maintains regulatory and law enforcement systems, monitors the systemic risks in both the private and public sectors, and enforces transparency about the risk exposure of both financial and non-financial institutions in the markets. Well-developed regulatory and public disclosure systems are particularly important when government embarks on privatization while assuming an explicit or implicit obligation to cover residual liabilities and ensure that private agents achieve particular outcomes.

Prevention of fiscal risks depends on a combination of analytical tools, incentives, and the capacities of parliamentarians, civil servants, regulators, supervisors, international institutions, and market agents. Potentially the best place to develop risk monitoring

capacities is in the central bank, given its role in collecting balance-of-payments data and, in many instances, supervising banks. Specific regulatory and supervisory agencies such as the securities and exchange commissions may best handle the monitoring of specific risks. Ultimately, the ministry of finance and the office responsible for public liability management would handle the monitoring and prevention of the government's overall risk exposure.

Undertake measures to reduce the fiscal risk of individual government programs and promises. Whether the government's programs, promises, and exposure to fiscal risks are appropriate depends on their consistency with government policies and actions. The following aspects of consistency in particular influence a government's fiscal performance:

- Consistency of government programs and promises with the stated role and strategic priorities of the state
- Consistency in the eligibility and management standards applied across government programs over time
- Consistency of the risks assumed and reserves provisioned under a program with the risk management capacities of the government
- Consistency between the authority of policymakers to assume contingent fiscal risks and their accountability.

Steps to control the risk of individual government programs could be as follows.

1. Before Government Admits an Obligation

Assess how the obligation fits the pronounced role and strategic priorities of the state. What types of support the government decides to offer both outside or through the budget define the actual role of the state. Programs outside as well as inside the budget should, in principle, be subject to the same type of policy analysis and consideration. In the case of contingent support programs such as guarantees for state institutions and funds, the government must consider whether their objectives fit within its announced role and priorities and whether they justify the potential long-term fiscal costs.

Consider the choices of policies and forms of support relative to the associated financial risks and government's risk preference and risk management capacity. The quality of fiscal performance benefits when the government acknowledges the cost of uncertainty about future public financing requirements in considering alternative programs and forms of support for particular policy objectives. As with corporations, an unexpected requirement for financing disrupts financial planning and increases the cost of borrowing or, in a worse case, runs the risk that no credit financing is available. Governments need to evaluate alternative ways to implement their policies not only on the basis of their potential cost and benefits but also on the extent of the uncertainty they involve for future public financing. The government would judge contingent forms of support in terms of the extent of the asymmetric information and transaction costs. These

considerations would be made in the context of the government's own risk preferences and risk management capacities and the reliability of its access to ad hoc borrowing.

Define and communicate the standards for and limits of government involvement to minimize the moral hazard. It is not so much the budgeted expenditures but the contingent liabilities, particularly the implicit ones, as understood by the public and markets, that define the outer limits of state responsibilities and affect the behavior of the public and market agents. The more formally and precisely the government defines and signals its responsibilities (its area of commitment), the more distinct are the explicit liabilities and the smaller are the implicit liabilities. The more credibly the government defines its responsibilities and the pain market agents will bear in cases of their failure and reliance on government rescue, the less is the problem of moral hazard. Take the example of a society where the government has a strong tradition of extensive public services. In such a case the central government may be expected to take over any obligations of subnational governments in troubles. Such an expectations raises a scope for moral hazard on the side of subnational governments. The central government can reduce the moral hazard by signaling that it will only ensure the delivery of core services to citizens of insolvent subnational governments. At the same time, it can state that it will not bail municipalities out from their debts and non-core expenditure obligations.

Evaluate the risks of programs individually and in a single portfolio that also contains existing risks, estimate the potential fiscal cost of each obligation, and set additional reserve requirements. Qualitative analysis of the risk factors in alternative government programs and estimates of their potential long-term fiscal costs and hidden government subsidies prior to any commitment helps optimize the choice and design of government programs. Rough quantification of the risk and potential fiscal cost of government contingent liabilities and commitments requires good qualitative analysis of the underlying risks. Specialized methodologies such as option pricing and value-at-risk are of great value in deriving a more precise estimate of the potential costs of a particular program. According to government reserve policy, the risk exposure of a proposed program added to overall government exposure determines the amount of additional resources that should go into the government reserve fund.

Design the program well to protect the government against risks. Based on the qualitative risk analysis, the government needs to identify those risks it can control reasonably well, decide which risks to cover under its proposed program of contingent support, and develop effective risk-sharing, regulatory, and control mechanisms to monitor the performance of the parties under the program. Apart from exogenous risks such as drought, the government faces endogenous risks that are mainly a function of program design. A poor design can create varying levels of market distortion and moral hazard, whereas a good design can reduce the potential fiscal cost of the program. An example is a partial guarantee that covers only non-commercial risks, less than 100 percent of the value of the potential loss, and the last rather than the first portion of the loss. Programs that involve implementation by an intermediary agency that itself must be established, such as a guarantee fund of any sort, are more difficult to design, particularly in terms of management incentives and performance monitoring by the government.

2. When the Government Accepts and Holds an Obligation

Stick to the pre-set limits of government responsibilities. After the government approves a program or commitment, the main challenge is to ensure that the markets and public do not expect any state support beyond the announced limits over the life of the obligation. Any indication that the government might provide financial support beyond the announced limits will raise the moral hazard for and distort the behaviors of the parties potentially benefiting from the program.

Budget, account, and disclose the obligation. On the institutional side, the government faces the challenge of budgeting, accounting and provisioning for, and disclosing the obligation adequately. How does it ensure that no unknown contingent liability appears only after it is triggered? For instance, the public finance law can state that an obligation is valid only if it was assessed, budgeted, accounted, and, above all, disclosed at the time of its adoption by government.

Monitor the program risk factors and reserve-fund adequacy. Over the life of an obligation, the government needs actively to monitor the program's risk factors, the performance of the agents under the program and, in this context, also the adequacy of its reserve funds. Monitoring of intermediary agencies, such as banks and various credit and guarantee funds that the state uses to implement its policy objectives and guarantees, is particularly important. If the government lacks a good monitoring capacity, it can contract this task out for a performance-based fee. The cost of monitoring and administering programs of contingent support may be relatively high and should be reflected in the ex-ante calculations of the potential fiscal cost of a program.

3. After a Liability Falls Due

Execute the obligation within its pre-set limits and identify lessons for future policy choices. It is critical that the government meet an obligation when it falls due within the stated limits, particularly in terms of the credibility of future announcements and the scope for future moral hazard in the markets. For instance, paying depositors more than the specified deposit insurance levels tells the markets that the government will submit easily to political pressure, tells depositors that banks offering higher yields are "safe," and tells the banking sector that excessive risks are worth taking.

By applying the lessons from its involvement with direct and contingent liabilities, both explicit and implicit, the government is able to adjust its role incrementally, rather than abruptly, in a crisis. A timely and credible explanation of any adjustment in the state's role that will affect future policy choices will prompt the public and market agents to adjust their expectations and behavior. For example, by explaining that the public pension scheme is not fiscally sustainable and that future governments will have to reduce the pension benefit significantly, the government influences the saving behavior of people.

If an obligation is implicit, assess whether it coincides with the state's announced role and promotes desired market behaviors. When public interest groups or market agents suddenly call on the government to extend more support than was originally specified,

policymakers need to ask whether extending that support coincides with its announced role and how it affects future behavior in the markets. The long-term damage to the government of acting upon an ad hoc request may sharply exceed the potential short-term benefit. Acting upon ad hoc requests may, however, be politically attractive, and the government is often able to find ways to improperly use financial institutions and funds outside the public sector to implement and finance its actions. Thus the public, investors, and international authorities need to monitor the government's responses to ad hoc claims of an implicit government liability and apply sanctions for fiscally irresponsible choices.

Compare and report the estimated and actual cost of government support, evaluate performance, and apply sanctions for failures. The requirement that the government report and compare the ex-ante risk evaluation and actual layouts for a program is critical to government accountability. Performance evaluation applies to government departments and officials as well as to the parties under a program. Sanctions may involve government officials (the case where particular interests distorted the ex-ante risk analysis), the managers of state-guaranteed and intermediary agencies implementing the government's programs (such as for exposing the government to unnecessary and excessive risks), and the parties under the program (where they breached an agreement).

ANNEX 3. FUNCTIONAL COMPONENTS OF THE GOVERNMENT DEBT OFFICE

A prerequisite for efficient management of sovereign liabilities is a well specified organizational structure. Debt management is most effectively organized **by function**, not by product namely into Front, Middle, and Back Offices. This organizational structure must be supported by clear objectives, delegation of authority and reporting, controls, performance monitoring, strong code of ethics and sound judgment. The boundaries of the Middle Office (MO) in a sovereign debt management structure vary from country to country, and are typically defined “by default”: the competency of the MO covers all issues which are in the competence of neither the Front Office (FO), nor the Back Office (BO). On the contrary, the boundaries of these two departments are quite standard in different national environments and are typically as follows:

Front Office

- Funding management – implementation of debt management strategy
- Participates in the design of the funding strategy
- Concludes the transactions: follow-up of the financial markets, preparation, conclusion
- Contacts with the FO of the counter parties (lenders)
- Investor relations and marketing (to investors both domestic and international)
- Communication (with other Treasuries, the public, the press, etc.)
- New product development (in close coordination with the Middle Office)
- Portfolio management - implementation of decisions to rebalance the portfolio bringing it closer to strategic benchmark, and of the derivatives contracts,
- In some countries the FO manages the daily cash position of the Government (contacts with the Central Bank as the fiscal agent of the Government)
- Competence of the FO stops when the ticket is written and transmitted to the Back Office
- In some countries, a dedicated legal unit operates from the FO.

Back Office

- Executes the transaction
- Makes sure that sufficient money is available in the Treasury account
- Validates data from the FO
- Sends instructions to the netting, clearing and settlement systems
- Reports transactions to the legal reporting Authority and to internal authorities (audit, Board)

- Takes care of accounting and translates the transactions into budget execution entries
- Keeps the securities accounts
- In some countries, a dedicated IT unit is placed within the BO.

The main reason for separating the Front and Back Office functions is to ensure that staff executing transactions are different from staff entering them into the accounting system, eliminating incentives to build an excessively risky exposure.

Middle Office

The core competence of the MO is the *formulation of the State's medium-term debt management strategy*, to be adopted by the Authorities (e.g. by a Government's decision endorsed by the Parliament). The MO translates general objectives for debt management into manageable and quantifiable targets and guidelines.

The debt strategy is comprised of the issuance (and eventually buy-back) programs (what instrument to be issued and/or bought-back, at what maturity, in what currency and in what proportion, when, etc.) set in line with the overall borrowing objectives of the State; communication and marketing strategy; and new product and infrastructure development program. Portfolio risk management objectives (criteria to decide on the choice between domestic and foreign borrowing, on average maturity, duration, maturity profile, etc.) should also be part of the debt strategy. First, simple benchmarks should be developed. More advanced measures like "Budget/Cost-at-Risk", which quantify the government's risk, should be introduced, when the environment becomes more sophisticated.

The strategy is then translated into General Directives to the debt management unit, to be signed by the competent Authorities. These Directives constitute the framework for the debt managers' actions.

Other MO competences could include:

- *Risk analysis and management.* This competence is closely linked to the strategy formulation, and they should be viewed together, especially if the MO makes use of a mathematical model (benchmark debt portfolio, standard benchmark, etc.). In such a model, risks which cannot be managed are treated as "constraints". It is strongly recommended that these constraints be accurately defined and politically accepted. Risk analysis must be undertaken in a multiyear environment;
- *Risk control:* Monitoring the activities of the FO on the basis of pre-determined risk exposure ceilings, to prevent the FO from positions that are out of line with the risk profile approved by the Government;
- *Sustainability and consistency* analysis of the government borrowing strategy (in close coordination with the analytical units in the MOF and the Central Bank), to assure the consistency of the government borrowing policy with the priorities of medium-term macroeconomic, fiscal, and monetary policy;

- *Legal*: maintaining documentation for foreign debt, syndications, adaptations to the current legislation with regard to the development of the domestic market, collateralization, ISDA contracts, etc.
- *New product development* (in close partnership with the FO: proposals for improvements to the primary dealers system, secondary market regulations, development of retail debt products, etc.)
- *Managing off-budget risks* (monitoring other public debt issuers such as municipalities and public enterprises; managing the government guarantee portfolio, etc.). MO competencies can range from minimal (collecting information) to coercion if necessary, depending on the political set up, the seriousness of risks, and the feasibility of control instruments. In some countries, the MO collects information and offers advice on the timing of large private sector issuers;
- *Inputs into Budgeting*: Preparing the inputs into the state budget and updating the MOF regularly about the implementation of its borrowing program. A strong link with the Budget Formulation Department of the MOF is required, to monitor the evolution of the financing needs of the State. These projections should include estimates of budget costs on contingent liabilities;
- *Reporting*: preparing the Annual Debt Report (as part of the budget execution report to the Parliament), quarterly updates, and operational reports to the Management of the Treasury and other decision makers (the Cabinet, the MOF, etc.);
- *Research* on public liability management and related issues.

ANNEX 4. BENCHMARKING TUNISIA AGAINST OTHER EMERGING ECONOMIES

The two comparator groups used in this study are: *Other MENA* (Algeria, Djibouti, Egypt, Iran, Jordan, Lebanon, Morocco, Oman, Syria, and Yemen), and *Non-MENA debtor countries* (Chile, Dominican Republic, Hungary, Malaysia, Pakistan, Philippines and Romania). The reasons for selecting these groups are as follows.

Other MENA group. Region-wide data aggregation proved to be impossible due to irregular data quality, and to major structural differences in financial position of oil-exporting countries. Instead, a representative sample of MENA countries was constructed, in which all three analytical categories of debtor countries are represented: severely indebted countries (Jordan and Syrian Arab Republic); moderately indebted (Algeria, Lebanon, Yemen, and Tunisia itself) and less indebted (Djibouti, Egypt, Iran, Morocco, and Oman).

Tunisia is classified by the World Bank as moderately indebted middle income country.

All countries are classified by the World Bank by the level of their external debt into:

- Severely indebted means either of two key debt sustainability ratios is above critical levels: present value of debt service to GNI (80 percent) and present value of debt service to exports (220 percent).
- Moderately indebted are countries where either of the two severely indebted key ratios exceeds 60 percent of, but does not reach, the critical levels; and
- Less indebted are countries in which either of the two key ratios is below 60 percent.

Middle income economies are those in which 2000 GNI per capita was between \$756 and \$9,265. Low income economies are those in which 2000 GNI per capita was \$755 or less.

Indicators for the two comparator groups are simple (non-weighted) averages.

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