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PUBLIC DEBT MANAGEMENT AND DEBT MARKET DEVELOPMENT IN CYPRUS: EVOLUTION, CURRENT CHALLENGES AND POLICY OPTIONS

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PUBLIC DEBT MANAGEMENT AND DEBT MARKET DEVELOPMENT IN CYPRUS: EVOLUTION, CURRENT CHALLENGES AND POLICY OPTIONS

C. Stephanou and D. Vittas

Abstract

The main objectives of this paper are to describe the evolution and current challenges of public debt management and debt market development in Cyprus in order to identify relevant policy options for the authorities. Two separate stages can be conceptually distinguished: the period of financial repression (prior to 1996), and the period of progressive financial liberalization culminating with EU entry (1996-2005). Although significant progress has been made in the latter stage in terms of using market-based mechanisms and adopting a more sound public debt composition, there remain important weaknesses to be addressed in view of the forthcoming entry of Cyprus into the Eurozone.

Three main (and mutually reinforcing) challenges are identified and analyzed in this paper: institutional arrangements for public debt management, modernization of the primary and secondary government debt market, and upgrading investment management skills of domestic institutional investors. International good practice, as well as the experience of a selected peer group of countries, is used to review and propose policy options going forward.

The proposed reform agenda is fairly ambitious and calls for an integrated approach given the inter-linkages between reforms – however, it is well-aligned with the authorities' stated aims and includes several policy recommendations that had already been discussed. What is important going forward is for the authorities to promptly resolve outstanding issues and prepare the groundwork for the introduction of these reforms via a carefully sequenced roadmap.

ΔΙΑΧΕΙΡΙΣΗ ΔΗΜΟΣΙΟΥ ΧΡΕΟΥΣ ΚΑΙ ΑΝΑΠΤΥΞΗ ΤΗΣ ΑΓΟΡΑΣ ΟΜΟΛΟΓΩΝ ΣΤΗ ΚΥΠΡΟ

Κ. Στεφάνου και Δ. Βίττας

ΠΕΡΙΛΗΨΗ

Ο κύριος στόχος αυτού του δοκιμίου είναι να περιγράψει την εξέλιξη και τις σύγχρονες προκλήσεις στη διαχείριση του δημοσίου χρέους και την ανάπτυξη της αγοράς χρέους στην Κύπρο καθώς και να προσδιορίσει σχετικές μεταρρυθμιστικές επιλογές. Μπορούμε να διακρίνουμε δύο διαφορετικά στάδια στην μελέτη αυτή: την περίοδο της χρηματοοικονομικής καταστολής (μέχρι το 1996) και την περίοδο της προοδευτικής χρηματοοικονομικής φιλελευθεροποίησης που κορυφώνεται με την ένταξη στην Ε.Ε. (1996-2005). Παρόλο που στο δεύτερο στάδιο έχει γίνει σημαντική πρόοδος στην χρήση μηχανισμών της αγοράς και στην υιοθέτηση μιας πιο σωστής σύνθεσης του δημόσιου χρέους, παραμένουν ακόμα σημαντικές αδυναμίες που πρέπει να επισημανθούν υπό το φως της επερχόμενης ένταξης της Κύπρου στην Ευρωζώνη.

Σε αυτό το δοκίμιο επισημαίνονται και αναλύονται τρεις κύριες προκλήσεις: οι θεσμικές διευθετήσεις για τη διαχείριση του δημόσιου χρέους, ο εκσυγχρονισμός της πρωτογενούς και δευτερογενούς αγοράς κυβερνητικού χρέους, και η αναβάθμιση της ικανότητας διαχείρισης επενδύσεων των εγχώριων θεσμικών επενδυτών. Η διεθνής πρακτική αλλά και οι εμπειρίες μιας επιλεγμένης ομάδας χωρών χρησιμοποιείται ώστε να ανασκοπηθούν και να προταθούν προτάσεις πολιτικής.

Η προτεινόμενη μεταρρυθμιστική ατζέντα είναι αρκετά φιλόδοξη και αποτελεί μια ολοκληρωμένη προσέγγιση με δεδομένες τις διασυνδέσεις μεταξύ των μεταρρυθμίσεων. Συμβαδίζει όμως με τους δηλωμένους στόχους των αρχών και περιλαμβάνει διάφορες προτάσεις πολιτικής που έχουν ήδη συζητηθεί. Το σημαντικό για τη συνέχεια είναι οι αρχές να επιλύσουν άμεσα τα θέματα που εκκρεμούν και να ετοιμάσουν το έδαφος για την εισαγωγή αυτών των μεταρρυθμίσεων μέσω ενός προσεκτικά σχεδιασμένου οδικού χάρτη.

CONTENTS

1. INTRODUCTION

The main objectives of this paper[1] are to describe the evolution and current challenges of public debt management and debt market development in Cyprus in order to identify relevant policy options for the authorities. The motivation is twofold:

- the increased importance currently being placed on this topic for overall financial sector development[2];
- the forthcoming entry of Cyprus in the Eurozone (currently scheduled for January 1st, 2008), which is likely to lead to significant changes in debt market structure and conduct going forward.

A basic premise of this paper is that there is a strong link between public debt management and debt market development. The former, whose ultimate aim is to reduce the cost of government financing within acceptable risk parameters, cannot function effectively without the latter (and vice versa). In particular, the sophisticated management of public debt based on market-based auctions and the promotion of benchmark securities requires the presence of active money markets, liquid secondary markets, well-functioning payment and settlement systems, and robust regulation. In turn, development of liquid and efficient government debt markets is not feasible when public debt management relies primarily on captive financing sources and primary issuance involves a large number of frequent and fragmented securities. In addition, the composition of the investor base, especially the emergence of mature domestic institutional investors and access to well-established foreign institutional investors, is a major determinant of the level of sophistication of public debt management and the depth and breadth of the domestic government debt market.

The paper focuses primarily on issues that are directly relevant to the aforementioned objectives and – given tight time constraints and the broad scope of this exercise – does not analyze other pertinent public policy challenges (e.g. pension reform and fiscal sustainability), the macroeconomic situation or the domestic financial system.

The paper is structured as follows:

- overview of the evolution and characteristics of the domestic sovereign and corporate debt markets, as well as of the domestic investor base (section 2)
- identification and analysis of current policy challenges and available options in view of forthcoming entry in the Eurozone (section 3)
- summary of the main findings and related policy recommendations (section 4).

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[2] This is exemplified by recent publications on this topic by several multilateral organizations, including the ECB, IMF, OECD and the World Bank (see References at the end of this paper).

2. EVOLUTION OF DOMESTIC DEBT MARKET

2.1 Financial Repression and Captive Financing (1975-1995)

The 20-year period preceding the start of the financial liberalization process in 1996 was characterized by financial repression and considerable reliance on domestic, mostly captive sources for financing the public debt. The extensive use of crude direct monetary instruments impeded the development of active money markets and forced the authorities to engage in frequent issuance of government securities that prevented the emergence of liquid benchmark issues. In the absence of active debt markets, the authorities treated most domestic investors as captive sources of financing public debt at non-market rates.

Throughout this period, the Central Bank of Cyprus (CBC) relied on direct instruments of monetary control, primarily the requirement for banks to maintain with it a balance of around 20-30 percent of their domestic currency deposits (liquidity ratio)[3]. This was supplemented by the imposition of system-level or individual bank credit ceilings – enforced by moral suasion – in order to curb 'excessive' credit growth (i.e. above CBC targets) in some years[4]. The CBC was forced to rely on these crude instruments because the main indirect instrument available to regulate liquidity – the rate of interest – was unavailable due to the existence of a statutory 9 percent lending rate ceiling[5]. Interest rates were administratively set (the CBC could prescribe interest rate ceilings for different types of deposits and loans) and could differ substantially from international ones. In order to avoid capital outflows (especially given the political problems faced since the Republic's independence) and control the inflow of investment to 'desirable' economic sectors, there were strict restrictions on capital account transactions[6]. Given that most of these transactions required the prior approval of the CBC and regulations left it great scope for discretion, the CBC was able to retain a certain degree of freedom in monetary policy.

In its role as the government's banker and fiscal agent, the CBC was also active in government financing. With foreign assistance, the Government of Cyprus (GoC) undertook a massive infrastructure reconstruction program following the Turkish invasion of 1974, which contributed to large fiscal deficits (Figure 1) and the significant expansion of public and publicly guaranteed debt from low levels (Figure 2)[7]. The existence of foreign financing at preferential rates, combined with strong real growth

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[3] A minimum remunerated reserve requirement of 12 percent on domestic currency deposits was also in existence, but was subsumed under the overall liquidity ratio.

[4] Between 1975 and 1989, an additional amount (3 to 7 percent of banks' deposits) had to be placed with the CBC's Fund for Financing Priority Projects in order to support development projects in priority sectors.

[5] Although the relevant law dated back to 1944, the ceiling had been in place at least since the late 19th century in order to curb the activities of usurers. See Christodoulou C. (1992) and Phylaktis K. (1995) for a description of the historical evolution of the economy and of the financial system.

[6] See Stephanou C. (April 1996) and IMF (September 1998) for a detailed description.

[7] The definition of the public sector, which is used interchangeably with general government in this paper, comprises the central government and the pay-as-you-go social security system; semi-governmental organizations, extra-budgetary funds and local authorities are only included to the extent that they receive grants and loan guarantees or contribute to the budget – see IMF (October 2005) for details.

rates (7 percent on average over 1976-2005), helped to partly mitigate the impact on the public debt to Gross Domestic Product (GDP) ratio, although fiscal profligacy remained a source of concern on the balance of payments and the Cyprus Pound (CYP) for the CBC throughout the period.

Financing of the public debt over that period took place via a combination of foreign and (mostly captive) domestic financing. The bulk of financing from abroad, which was initially used to fund longer-term infrastructure projects, came from two main sources:

- official multilateral creditors, such as the *World Bank* and the *Resettlement Fund of the Council of Europe,* on 'soft' terms (i.e. long maturities, below-market interest rates and repayment grace periods)
- international financial markets via syndicated (Eurocurrency) loans and, starting in 1989, *Euro Commercial Paper* (ECP)[8] on market terms.

Other sources (bilateral creditors, trade credits, IMF facilities etc.) were also tapped but were relatively less important.

Domestic financing came from three main sources. First, borrowing took place from the CBC, either via short-term direct advances or securities investments[9]. Second, the surplus on the Social Security Funds, stemming mainly from social security contributions, was recycled into purchases of Treasury bills at a rate determined by the government[10]. This intra-governmental financing is included in the definition of gross – but not net – public debt[11], and it has accounted for the increasing wedge between gross and net public debt-to-GDP ratios over time (see below)[12]. Finally, government securities, which were first issued in 1969, were purchased by the private sector, comprising of banks, individuals, corporations and institutional investors (insurance companies, provident funds etc.)[13]. A large part of these purchases was in fact compulsory – for example, commercial banks (Treasury bill investments to satisfy the CBC liquidity ratio) as well as insurance companies and provident funds (required by law to invest a minimum proportion of their reserves in government securities). Although other domestic investors (e.g. individuals) were not obliged to invest in government securities, the absence of alternative investment opportunities (with the exception of bank deposits) due to the presence of capital controls effectively converted them into a semi-captive source of government financing.

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[8] ECP issuance could be denominated in several currencies with maturity from 7 to 365 days.

[9] The old CBC Law set ceilings for direct advances and for government security investments by the CBC related to the Estimated Ordinary Revenue collected over the year or to the CBC's sight liabilities.

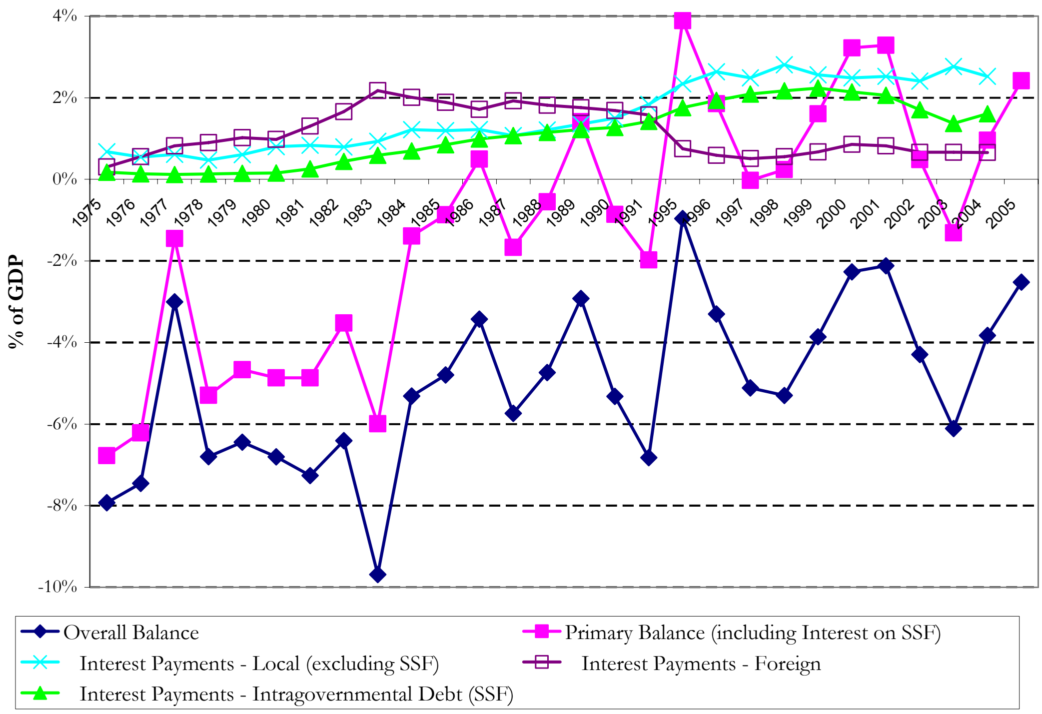
[10] The rate reflected a compromise between ensuring sufficient yield and facilitating the government's developmental policy needs, and it was renegotiated in 2001 in light of financial liberalization; the current rate is equal to the Lombard rate minus 50 basis points.

[11] In this paper, gross public debt refers to the total debt contracted by the public sector (see footnote 7) excluding any loan guarantees. Net public debt is gross public debt less intragovernmental debt held by the Social Security Funds; sinking fund and other government deposits are excluded from this definition.

[12] While intragovernmental interest represents an intertemporal fiscal burden, its servicing does not affect the consolidated financial position of the general government (related payment flows are included both as non-tax revenues and as interest payments, so they cancel out in the overall government balance).

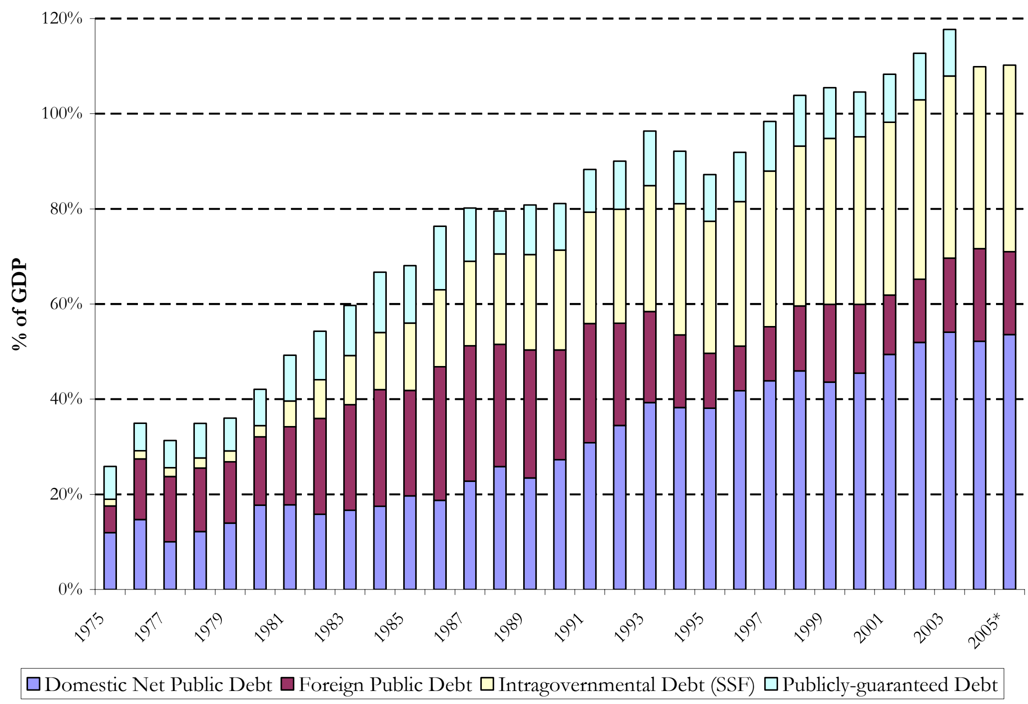
[13] A few semi-governmental organizations, public agencies and municipalities have also invested in government securities, and are subsumed under the private sector classification for analytical purposes.

Figure 1: Evolution of Fiscal Accounts (1975-2005)



Source: Ministry of Finance, IMF, University of Cyprus ERC.
Note: The primary balance equals the overall balance less interest payments on government debt (including payments made on the intragovernmental debt of the Social Security Funds).

Figure 2: Evolution of Public and Publicly Guaranteed Debt (1975-2005)



Source: Authors' analysis, CBC, Ministry of Finance, IMF.
Note: Domestic net public debt excludes intragovernmental debt held by the Social Security Funds (SSF). Public debt figures for the 1970s and for 2005 are estimates. Figures do not include sinking funds, while there is no available data for publicly-guaranteed debt in 2004-05. Publicly-guaranteed debt only includes foreign debt guarantees prior to 1986.

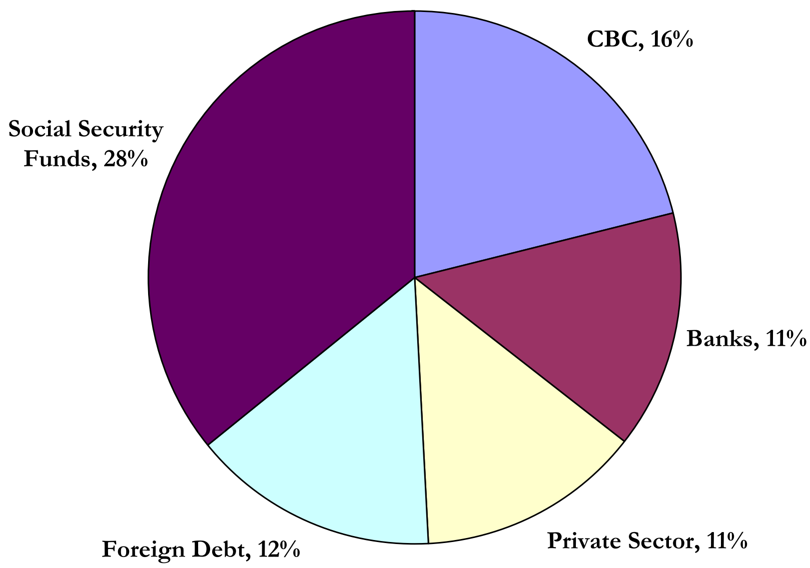
Given the financing structure, there was no apparent need for a secondary debt market and the range of debt instruments (which were periodically issued at administered rates) was limited:

- 13-week Treasury Bills, which were rediscountable at the CBC
- 3- and 5-year fixed-rate bonds (‘*Government Registered Development Stock*’), with the former addressed exclusively to individuals
- 5-year Savings Certificates, which were issued to individuals, had their interest tax-exempted and compounded annually (but paid only upon redemption), could be renewed automatically, but were not tradable
- 5-year Savings Bonds, issued in small values (CYP 5 and 10), gave individuals the right to participate in regular draws with tax-exempted prizes.

As can be seen in Figures 3 and 4 below, the gross and net public debt as at the end of this period (1995) were 77 and 50 percent of GDP respectively[14]. Around one-fourth of net public debt consisted of (mostly long-term) borrowing from abroad, while the CBC financed (directly via advances or indirectly via government securities purchases) another one-third of the total. The remaining net public debt comprised of holdings by the banking system and the rest of the domestic private sector; even though non-residents were also allowed to purchase domestic government securities and repatriate principal and interest, the non-convertibility of the CYP virtually eliminated such investments. Finally, net public debt was very short term in nature, with short-term exposures (i.e. Treasury bills, CBC advances and short-term foreign debt) representing 62 percent of the total and exceeding all other forms of financing.

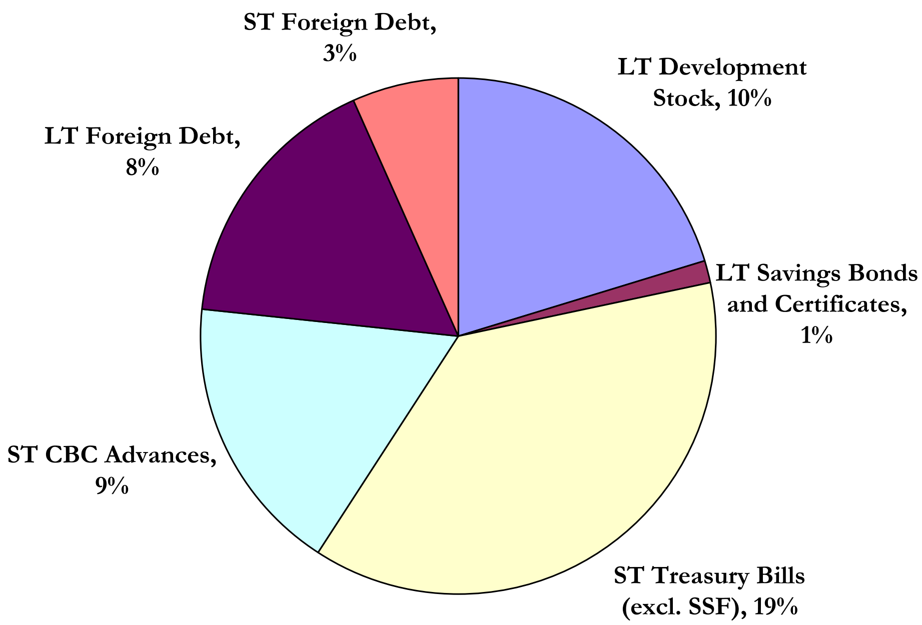
[14] The figures do not include publicly-guaranteed debt, mostly in the form of foreign currency loans to semi-public enterprises such as the Electricity Authority of Cyprus, Cyprus Airways, the Cyprus Telecommunications Authority and the Sewerage Boards, which represented an additional 10 percent of GDP in 1995.

Figure 3: Structure of Gross Public Debt by Investor – % of GDP (1995)



Source: Authors' analysis, Ministry of Finance, IMF, University of Cyprus ERC.
Note: The private sector shown above excludes commercial banks. Figures do not include sinking funds or publicly guaranteed debt.

Figure 4: Structure of Net Public Debt by Instrument – % of GDP (1995)



Source: Authors' analysis, Ministry of Finance, IMF, University of Cyprus ERC.
Note: ST and LT are short term (i.e. original maturity of at most one year) and medium- and long-term (i.e. original maturity above one year) instruments respectively. Figures do not include sinking funds or publicly guaranteed debt.

2.2 Progressive Financial Liberalization and its Aftermath (1996-2005)

In spite of successive government pronouncements to promote financial liberalization, the process only started in 1996 and culminated with Cyprus's full adoption of the *acquis communautaire* upon entry into the European Union (EU) in May 2004.

Table 1: Financial Liberalization Process – Key Milestones (1996-2005)

Date	Reform Description
January 1996	Abolition of liquidity ratio, reduction of minimum reserve requirements, introduction of indirect monetary instruments (repo rate and Lombard facility) and of public auctions for government securities (only Treasury Bills initially)
1996 – 2004	Gradual relaxation of capital account restrictions and simplification of administrative procedures relating to current transactions
January 2001	Removal of 9 percent legal ceiling on lending rates, liberalization of spot and forward transactions in the domestic foreign exchange market, and abolition of restrictions on medium-term (over two years) and long-term lending in foreign currency by banks (using their foreign currency holdings) to residents
2001-2005	Improvement of financial regulation in areas such as prudential rules, deposit insurance, anti-money laundering, securities markets oversight etc.
July 2002	CBC Law and Cypriot Constitution amended to make the CBC independent and to prevent it from providing credit facilities to the government and from directly purchasing government debt instruments
May 2004	Removal of remaining restrictions on capital movements and payments, and ending of distinction between residents and non-residents under previous Exchange Control Law

Source: Stephanou C. (April 1996) and IMF (July 2001 and October 2006).

As can be seen in Table 1 above, financial liberalization took place in a sequenced progressive manner in which domestic deregulation and the introduction of market-based monetary instruments preceded the abolition of restrictions on direct investment that, in turn, preceded full capital account liberalization. In chronological order, the main changes with respect to government financing were the following:

- abolition of liquidity ratio (1996) – given the large size of the liquidity stock in banks' balance sheets, it was decided to initially 'freeze' it by keeping it invested in Treasury bills that were renewed automatically and earned a fixed rate of 6 percent; the stock was eventually phased out in early 2005;
- introduction of 'Lombard' collateralized marginal lending standing facility (1996) – credit is granted to the banks on an overnight basis using government securities as collateral;
- introduction of public auctions for government securities – auctions began to be held for 13- and 52-week Treasury bills (1996 and 1998 respectively) and for 5/10-, 2- and 15-year development stock (1997, 2000 and 2001 respectively);
- abolition of automatic rediscounting of government securities by the CBC (1996);
- listing and trading on the *Cyprus Stock Exchange* (CSE) of government securities issued through auction (1997);
- abolition of the CBC financing window to the government (June 2002) – all outstanding advances were converted to a 30-year loan with an interest rate of 3 percent and a five-year grace period for capital repayment.

In addition to the above reforms, the GoC has expanded the range and maturity of issued securities in order to tap different market segments as follows[15]:

- 13- week and 52- week Treasury Bills;
- development stock, with additional maturities introduced recently, targeting different investor types (2-year: banks, 10/15-year: institutional investors);
- 3-year development stock and 5-year Savings Certificates aimed exclusively for individuals (the issue of Savings Bonds was discontinued in 2002) and available by subscription.

52-week Treasury Bills and 2/5/10/15-year development stock are issued to the public (both physical and legal persons) via bid-price auctions[16]. Although Treasury bills are generally issued more frequently (every few months) than development stock, neither type of security is issued on a regular basis. The CBC publicly announces (Official Gazette of the Republic, local media, Bloomberg) an auction and the security details approximately 7-10 days prior to the actual date; investors can submit their bids during the specified period, which usually starts 2-3 days before the actual auction date. Bids (which can be sent via post or fax) can be 'competitive' or 'non-competitive', with the latter paid the average weighted price at which competitive bids are accepted. Bidders can submit more than one tender, while banks and approved brokerage firms are also allowed to submit bids on behalf of third parties. Banks can settle their bids (own account or third party) using their account with the CBC, while all other investors need to submit a bank draft to the CBC. The Ministry of Finance (MoF), relying upon the advice of the CBC, has the right to accept bids for the entire or for a partial amount; there are virtually no restrictions on the actual amount accepted (in total or by bidder), or on the share of non-competitive to competitive bids. Notification of the amount allocated to each bidder typically takes place on the same day, while the overall auction results are publicly announced on the following day. All issuance is in book entry form, while clearing and settlement (as well as maintenance of the securities registry) take place at the CBC.

Once they are issued, auctioned government securities are then listed and traded on the CSE, which is supervised by the *Securities and Exchange Commission* (SEC)[17]. According to the terms of issue, the CBC may intervene in the secondary debt market (if deemed necessary) in order to maintain orderly market conditions. Clearing and settlement of trades is performed by the CSE[18], while the CBC, in its role as government securities registrar, updates the registers daily on the basis of relevant CSE transactions. To-date, there is no derivatives market relating to sovereign debt, while, as described in the next section, market trading is minimal. Government securities can also be used as collateral by banks for CBC borrowing via open market repo operations or the Lombard marginal lending standing facility; in such a case, clearing and settlement take place by the CBC itself.

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[15] See ECB (May 2003 and November 2004) and EIB (2004) for more details.

[16] 13-week Treasury Bills, which are not traded on the CSE, are issued either through auction or at fixed prices, with the latter used to meet the investment needs of the Social Security Funds and the investment of 'frozen' deposits maintained by banks with the CBC (such deposits were eliminated in 2005).

[17] The CSE is responsible for limited aspects of securities market supervision and certain listing requirements of its members.

[18] Dematerialization of listed government securities in the CSE's Central Depository and Central Registry has started but has not yet been completed; all remaining issues are immobilized.

As can be seen in Table 2 below, taxation of securities is relatively low (interest is paid semi-annually) and does not appear to be an obstacle to their purchase or trading.

Table 2: Taxation of Government and Corporate Securities in Cyprus

	Government Securities		**Corporate Securities**	
	Individuals	**Corporates**	**Individuals**	**Corporates**
Interest - Income Tax	Exempt	10% corporate income tax for Cyprus residents (50% of interest income is exempted)	Exempt	10% corporate income tax for Cyprus residents (50% of interest income is exempted)
Capital Gains	None	None	None	None
Interest – Special Contribution for Defence Fund	3% (Cyprus tax residents only); Treasury bills are excluded	10% (Cyprus tax residents only); Treasury bills are excluded	10% (Cyprus tax residents only); Treasury bills are excluded	10% (Cyprus tax residents only); Treasury bills are excluded

Source: PwC (2006), CBC.
Note: All interest earned by a provident fund is subject to a special contribution for defense at only 3 percent.

On the external financing front, the GoC has increasingly relied in recent years on foreign capital markets via multi-currency ECP and *Euro Medium Term Note* (EMTN)[19] Programmes of Euro 500 million and 2 billion respectively that are executed via prime international banks and securities houses, as well as on loans from the *European Investment Bank* and the *Council of Europe Development Fund*.

Several stylized facts can be highlighted from the evolution of public debt by maturity between 1995-2005 (Figures 5, 7 and 8):

- total public debt has grown over this period in both gross and net terms (from 77 and 50 percent of GDP respectively in 1995 to 110 and 71 percent of GDP respectively in 2005)
- foreign debt – which is mostly fixed-rate and almost exclusively denominated in Euro nowadays – has remained fairly stable as a proportion of the total net public debt (from 23 percent in 1995 to 25 percent in 2005)
- the maturity of net public debt has increased considerably (debt with original maturity above one year accounted for 38 percent of the total in 1995 and 93 percent in 2005), thereby reducing rollover risk – the average maturity of domestic bonds (excluding Treasury bills) and foreign bonds was 4 and 6 years respectively as of early 2006[20]
- the share of 'marketable debt', defined as the net public debt that is sold using market mechanisms and based on market prices either domestically or abroad, has also increased considerably over this period (from below 10 percent in 1992 to around 80 percent in 2005)[21].

[19] The Programme, under which the GoC has issued 5/7/10-year eurobonds, was established in 1997.

[20] Data for the average duration of gross and net public debt in those years was not available.

[21] The conversion in 2002 of outstanding CBC advances into a 30-year loan on preferential terms might have provided some 'fiscal comfort' to the authorities at the time, but it has also rendered a considerable portion of domestic public debt as non-marketable.

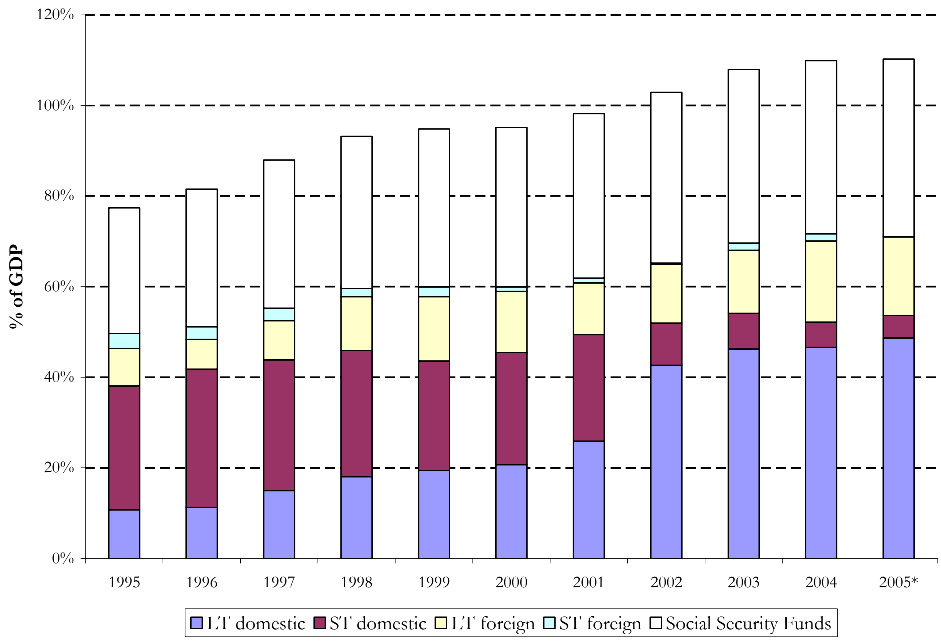
It is worth pointing out that public indebtedness is actually better than the figures show because of the existence of sinking funds[22] that were discontinued in 2002 due to harmonization with EU practice (Eurostat does not recognize them for public debt measurement purposes), but the current stock will be used to repay debt maturing by 2008 and is expected to reduce the public debt to GDP ratio by an additional 6-7 percentage points.

Finally, the investor base has also changed moderately over this period (Figure 6):

- large but stable reliance on Social Security Funds to finance gross public debt (36 percent of the total in both 1995 and 2005)
- reduced importance of the CBC in financing net public debt (from 33 percent in 1995 to 19 percent in 2005)
- increased importance of commercial banks in financing net public debt (from 22 percent in 1995 to 36 percent in 2005)
- steady reliance on foreign institutional and domestic non-bank private sector investors in financing almost half of net public debt (combined total of 45 percent in both 1995 and 2005).

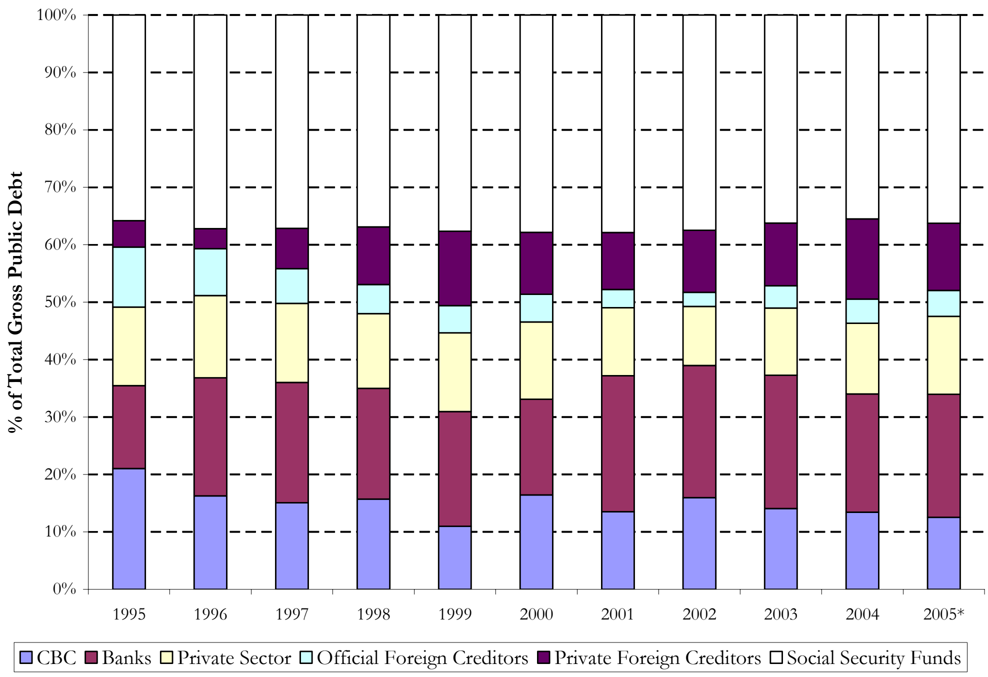
[22] These are government accounts held at the CBC into which deposits are made each year for the purpose of accumulating reserves to repay various medium-term debt obligations.

Figure 5: Evolution of Gross Public Debt by Maturity (1995-2005)



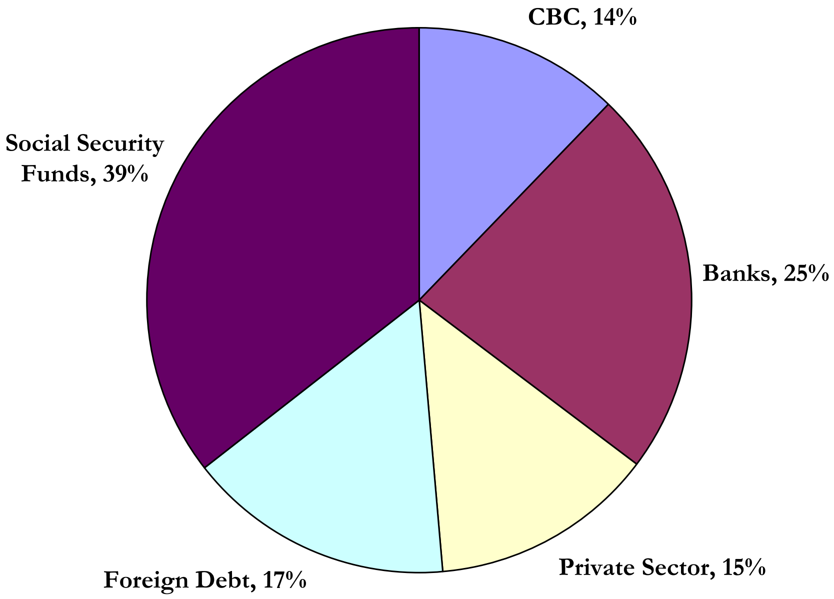
Source: Ministry of Finance, IMF, University of Cyprus ERC.
** Figures for 2005 are preliminary.*
Note: ST and LT are short term (i.e. original maturity of at most one year) and medium- and long-term (i.e. original maturity above one year) instruments respectively. Short-term domestic debt excludes Social Security Funds. Figures exclude sinking funds and publicly guaranteed debt.

Figure 6: Composition of Gross Public Debt by Investor Type (1995-2005)



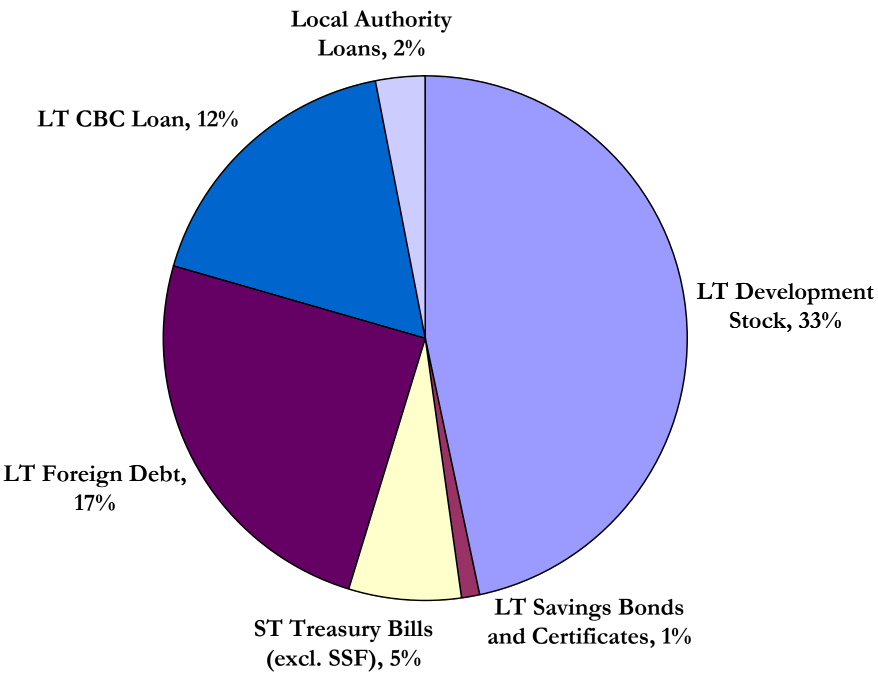
Source: Ministry of Finance, IMF, University of Cyprus ERC.
** Figures for 2005 are preliminary.*
Note: Banks are assumed to be the sole providers of local authority loans. The private sector shown above excludes banks. Private foreign creditors includes foreign capital markets investors (ECP and EMTN) and suppliers' credits, while official creditors (both multilateral and bilateral) comprise the rest of foreign borrowing. Figures do not include sinking funds or publicly guaranteed debt.

Figure 7: Structure of Gross Public Debt by Investor – % of GDP (2005)



Source: Authors' analysis, Ministry of Finance, IMF, University of Cyprus ERC.
Note: Banks are assumed to be the sole providers of local authority loans. The private sector shown above excludes banks. Figures do not include sinking funds or publicly guaranteed debt.

Figure 8: Structure of Net Public Debt by Instrument – % of GDP (2005)



Source: Authors' analysis, Ministry of Finance, IMF, University of Cyprus ERC.
Note: ST and LT are short term (i.e. original maturity of at most one year) and medium- and long-term (i.e. original maturity above one year) instruments respectively. Figures do not include sinking funds or publicly guaranteed debt.

2.3 Domestic Investor Base

Cyprus has long had a well developed and successful privately-owned financial system serving the needs of both residents and non-residents. As can be seen in Table 3 below, the total market size is very large compared to international standards, while the structure is bank-oriented. There is a sizeable institutional investor base that comprises the Social Security Funds (controlled by the GoC), insurance companies, listed closed-end investment companies and pension and provident funds[23], but their impact on domestic financial sector development has been constrained historically by the imposition of tight rules on their investments, both for prudential purposes (to ensure the safety of assets for the benefit of participating members) and in order to secure low-cost financing sources for government debt.

Table 3: Structure and Size of the Financial System in Cyprus (2005)

	Assets (CYP Billion)	Assets (% of GDP)
Banking Sector		
Commercial banks	22	284%
Cooperative credit institutions	5.2	67%
International banking units	8.3	107%
Insurance Sector*		
Life insurance companies	1.2	15%
General insurance companies	0.4	6%
Securities Sector		
CSE capitalization	6.2	81%
Listed closed-end investment companies	0.1	2%
Pension and Provident Funds**	**0.8**	**10%**
Social Security Funds (controlled by the government)	**3**	**39%**

Source: Authors' analysis, Ministry of Labour and Social Security, Ministry of Finance, CBC, IMF (October 2006).
** Figures are for 2004. ** Figures are for 2002.*

Who are the main investors in domestic government securities? As can be deduced from the aforementioned discussion and from Figure 9 below, commercial banks represent the bulk of the investor base and have actually increased their participation in recent years. This is not surprising: government bonds is the main domestic instrument that can be used to hedge banks' interest rate exposure in CYP arising from their local currency term liabilities. These banks also have large balance sheets that can easily absorb securities, especially in recent years when the losses from the equity market crash, combined with stricter prudential regulations on defining non-performing loans and recognizing interest income, led to a slowdown in domestic credit growth. In fact, government securities only represented around 5 percent and 8 percent respectively of the three largest banks' total assets on a consolidated (i.e. including foreign operations) and on a Cyprus-only basis as of end-2005.

In addition, the closed capital account and non-convertibility of the CYP had historically created a segmentation between domestic and foreign currency liquidity, implying that banks could not use their sizeable foreign currency deposits (given

[23] The absence of a comprehensive regulatory framework governing domestic mutual funds (especially regarding their taxation treatment) has prevented the development of that industry in Cyprus until now.

Cyprus's position as an offshore financial centre) for domestic purposes[24]. Since there were few available investment options in the local market, banks tended to purchase short- to medium-term government securities as an alternative to placing their funds with the CBC.

However, there has also been a remarkable lack of interest to-date by institutional investors in government securities, at least when compared to other countries. The assets of institutional investors (excluding those of the Social Security Funds) are not negligible and account for at least 25 percent of GDP. In spite of that, their investments in government securities are estimated to represent less than one-third of their total portfolio. As can be seen in Figure 10, a large proportion of provident and pension funds' assets is actually invested in bank deposits, a pattern that has not changed substantially in the last few years. This is particularly odd since some of these funds are defined-benefit in nature and would need to invest in longer-term securities to ensure duration matching between their assets and liabilities. Insurance companies, the majority of which operate unit-linked products (a form of tax-advantaged mutual fund substitute), have a significantly larger proportion of bond investments, while closed-end funds tend to invest primarily in equity.

This conservative behaviour of asset managers and boards of trustees of provident and pension funds[25] can be partly explained by historical reasons: the repressed financial system limited investment opportunities and the need for sophistication or risk-taking. Insurance companies and (starting in 1996) listed investment companies were, in fact, allowed to invest up to 25 percent of their reserves abroad in listed securities, but most chose not to do so. Anecdotal evidence suggests that institutional investors were offered deposit rates by banks that were similar to those attained by investing in government securities, and – given the lack of a secondary debt market (see below) – could be liquidated faster and at lower cost than the latter. In addition, the absence of a regulatory framework and of a supervisory authority for provident and pension funds that would provide the right governance structures and incentives for proper asset allocation have discouraged those funds from adopting more appropriate (and less conservative) investment policies; such policies were therefore perceived to offer little apparent benefit[26]. The recent CSE market crash[27] in which several provident and pension funds lost money thus generating negative publicity, as well as certain public scandals involving their administration, have reinforced the traditional timidity of the trustees of these funds.

[24] CBC approval was required for all loans in foreign currency prior to financial liberalization, while 75 percent of banks' foreign currency deposits have to be matched currently by short-term liquid foreign currency assets. In addition, strict prudential regulations apply to banks' open foreign exchange positions.

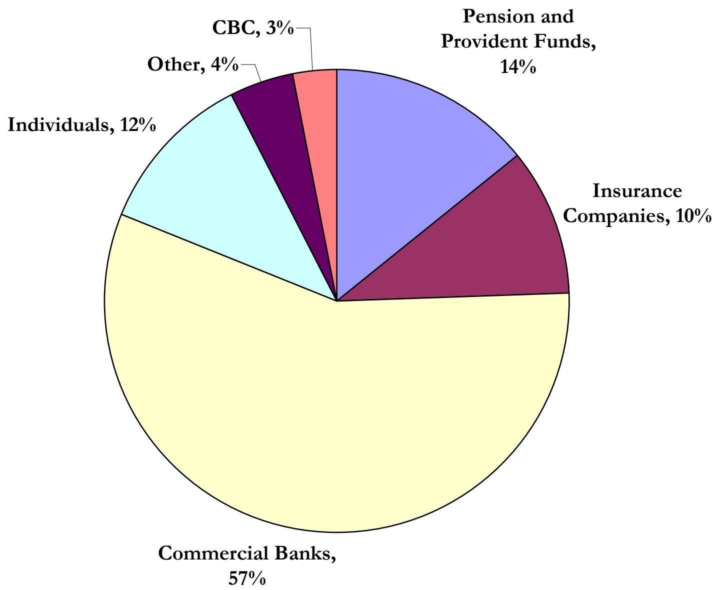
[25] Even though there are more than 1,700 provident funds, two of the largest ones belong to semi-governmental organizations (Electricity Authority of Cyprus and Cyprus Telecommunications Authority) that have boards of directors appointed by the government.

[26] See Investment & Pensions Europe (June 2006).

[27] Spurred by tax incentives, a wave of mergers and initial public offerings, and bank lending for equity purchases, as well as the existence of market abuses that highlighted regulatory and supervisory gaps, the CSE grew eight-fold in the space of less than one year, peaking in November 1999 and then collapsing below its original level over the next two years.

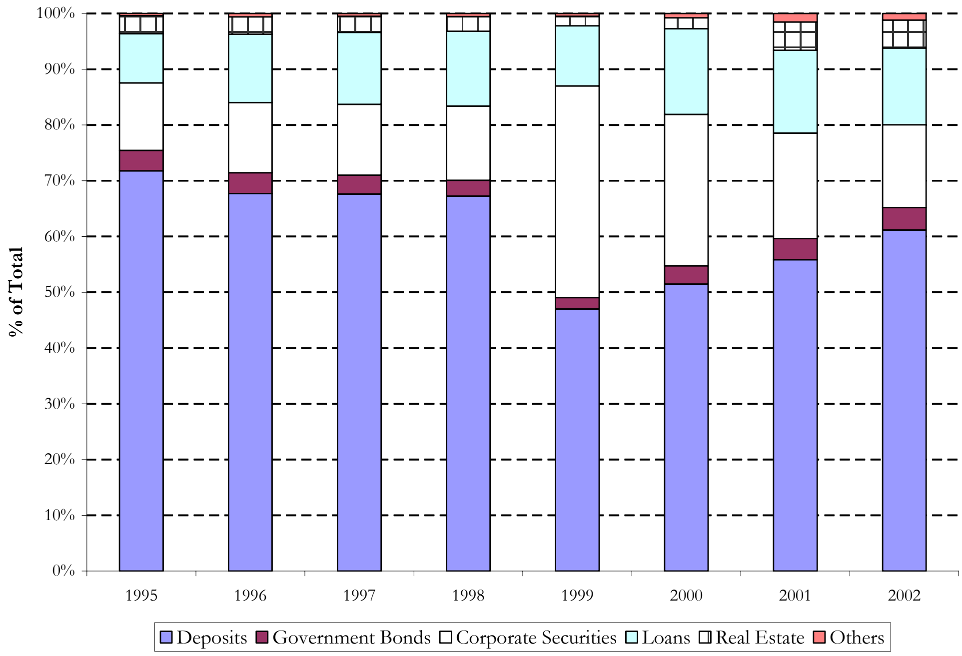
Finally, individual investors represent the third largest group of domestic government securities holders behind banks and institutional investors, and have been a consistent funding source since the 1970s. However, as public debt has grown in size, their relative share has shrunk and is expected to continue to do so in the future.

Figure 9: Investor Base of GoC Development Stock - % of Total (2005)



Source: Ministry of Finance.
Note: Other includes cooperative societies, brokers, public corporations etc.

Figure 10: Asset Allocation of Provident Funds (1995-2002)



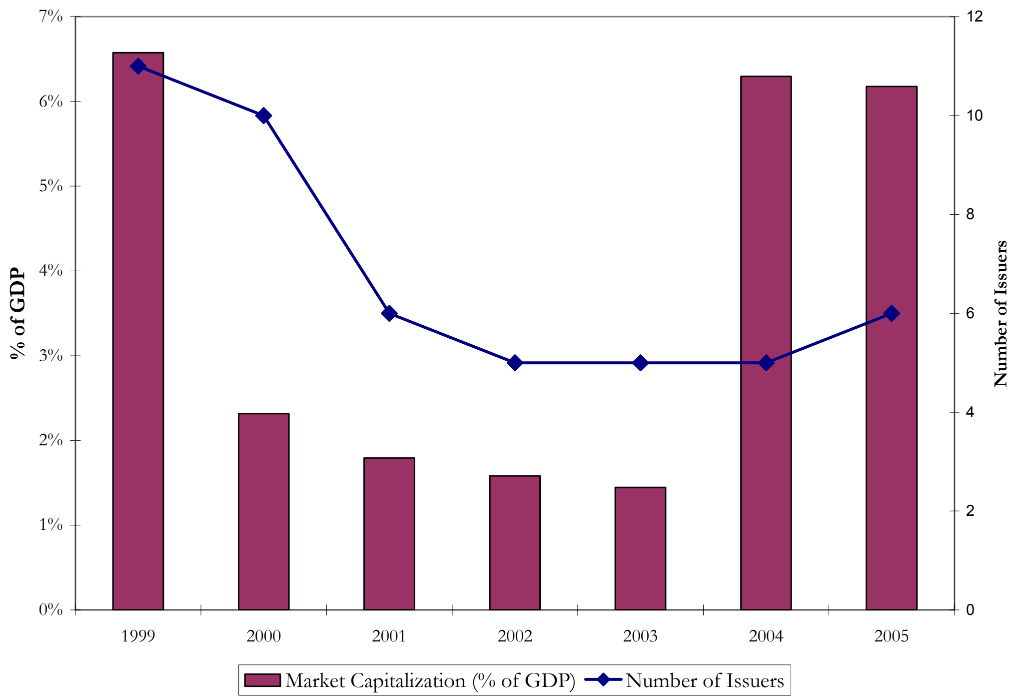
Source: Ministry of Labour and Social Security.
Note: Deposits can be placed either with banks or cooperatives. Government bonds include both Treasury bills and notes. Corporate securities include corporate bonds and equities. Loans can be granted to provident fund members and non-members.

2.4 The Corporate Bond Market

In contrast to the increasing size of public debt, domestic corporate bond issuance remains at very low levels. Even though corporate debt has been issued via private placement[28] since at least the early 1980s, the market has not grown in size. As can be seen in Figure 9 below, very few companies use bonds as a financing instrument – in fact, the majority of these in the CSE are banks (some of which have also issued their own Eurobonds), accounting for 3 out of 6 issuers and 93 percent of corporate bond market capitalization as of end-2005. Bank-issued domestic bonds in recent years have taken the form of subordinated debt for regulatory capital purposes, either via Tier 2 debentures or hybrid Tier 1 perpetual 'capital securities'.

Some corporate bonds have been privately placed in order to speed up their issuance and avoid CSE listing requirements/fees[29], but they remain few and small in size. A few sub-sovereign bonds have also been issued[30], but the small size and shaky financial condition of many municipalities, which tend to rely on the government for the bulk of their financing, does not encourage the growth of that market.

Figure 11: Number of Outstanding CSE Corporate Issuers and Market Capitalization (1999-2005)



Source: CSE.
Note: Only the market capitalization of corporate issuers as of year-end is included in the above Figure.

[28] Corporate bonds (and equities) began to be publicly listed in the official CSE when the latter started its operations in March 1996, although an over-the-counter (OTC) market has been in operation by the Chamber of Commerce since at least 1986.

[29] Examples include Universal Bank, Lanitis Holdings, Cyprus Development Bank, Ygia Policlinic, Chr. & C. Mitsides, A&S Stephanides, Athos Diamond Center, Louis Tourist Agency, and Evans & Sons.

[30] Examples include the Municipality of Geroskipou, the Cyprus Sports Organization, the Limassol Slaughterhouse and the Amathounta Sewerage Board.

Corporate bonds are typically issued with maturities of around 4-10 years, while the interest rate paid on most of them is floating and based on a spread over the base rate; several of them are convertibles or carry warrants in order to attract equity investors. As described in the next section, trading is minimal and the secondary market is virtually non-existent.

The shallowness of the corporate bond market can be attributed to several factors. Firstly, the financial system structure in Cyprus has traditionally been bank-based and firms have relied extensively on banks for their financing (domestic credit to the private sector was 120 percent of GDP as of end-2005). As a result, the lack of a corporate bond market does not necessarily mean that these firms have been starved of funding opportunities. The dominance of bank-based financing has been supported by the structure of the corporate sector, which is dominated by very small firms (micro enterprises by international standards), whose relatively weak financial expertise and corporate governance standards (partly due to their family ownership) has contributed to their reluctance to list and become more transparent.

Secondly, the interest rate ceiling and a closed capital account, small issuance size, absence of domestic credit ratings and of a robust debt market infrastructure (e.g. securities custody and clearing), have not attracted foreign investors to this market and have, until recently, limited offshore financing opportunities for domestic firms.

Finally, the aforementioned characteristics of institutional investors[31], which represent around two-thirds of the investor base for existing corporate debt, have also held back the growth of the corporate bond market, while the economic and political fallout from the collapse of the CSE in 2000-01 further constrained their risk appetite in spite of the lack of any corporate bond defaults to-date. In fact, some non-financial corporate bonds carry a bank guarantee for investors (typically secured by a pledge on the company's real estate property) to offset the perceived higher risk, thus negating one of the main reasons for firms to tap the bond market.

[31] The lack of a domestic mutual fund industry has also witheld expansion of the corporate debt market.

3. CURRENT POLICY CHALLENGES AND OPTIONS

3.1 Introduction of the Euro

The principal policy target of the GoC going forward is the introduction of the Euro as the national currency in January 2008[32]. Until Eurozone entry is achieved, the recent elimination of remaining capital controls and the semi-fixed exchange rate regime leave little room for monetary policy flexibility. Further fiscal consolidation, which has been on-going since 2004, will be required in order to attain the Maastricht criteria. The government expects the fiscal deficit and net public debt ratios to drop to 2 and 67 percent of GDP respectively in 2006 (see Table 4), while its strategy is to finance the fiscal deficit entirely from domestic sources given the increased liquidity in the economy. According to the financial projections included in the Convergence Programme agreed with the EU[33], general government debt is expected to decline to 46 percent of GDP by 2010, aided by primary surpluses and the running down of accumulated sinking fund deposits held at the CBC[34].

Table 4: Cyprus – Selected Economic Indicators (2002-2006)

	2002	2003	2004*	2005**	2006**
GDP (US$ Billion)	10.5	13.3	15.8	16.9	18.2
GDP per Capita at current prices (US$)	14,913	18,554	21,622	22,919	24,324
Real GDP Growth Rate (%)	2.1	1.9	4.1	3.9	3.7
Unemployment Rate (%)	3.3	4.1	4.7	5.3	4.8
Inflation Rate (%)	2.8	4.1	2.3	2.5	2.5
Overall Fiscal Balance (% of GDP)	-4.3	-6.1	-4.0	-2.4	-1.8
Net Public Debt (% of GDP)	64.7	69.1	70.4	69.2	64.7
Current Account Balance (% of GDP)	-3.7	-2.2	-5.0	-5.6	-6.4
Euro per CYP (end-period)	1.73	1.71	1.71	1.73	1.74

Source: IMF, Ministry of Finance.
Note: Net public debt shown above differs from other figures in this paper because it is based on more recently available data.
** Estimated. ** Projected.*

As can be seen in Figures 12 and 13 below, long-term interest rate convergence on government securities (another Maastricht criterion) has already been largely attained, implying that the fiscal impact from rolling over the public debt will be relatively small. With the exception of 2004, when uncertainties related to EU entry and the UN-backed referendum on the reunification of the island led the CBC to tighten its policy stance in order to calm the market, there has been a steady convergence to Eurozone rates. In fact, the GoC undertook a eurobond issuance of Euro 500 million in July 2004 at only 23 basis points over the comparable German bund benchmark, which is quite similar to the sovereign spreads of other Eurozone members with relatively large

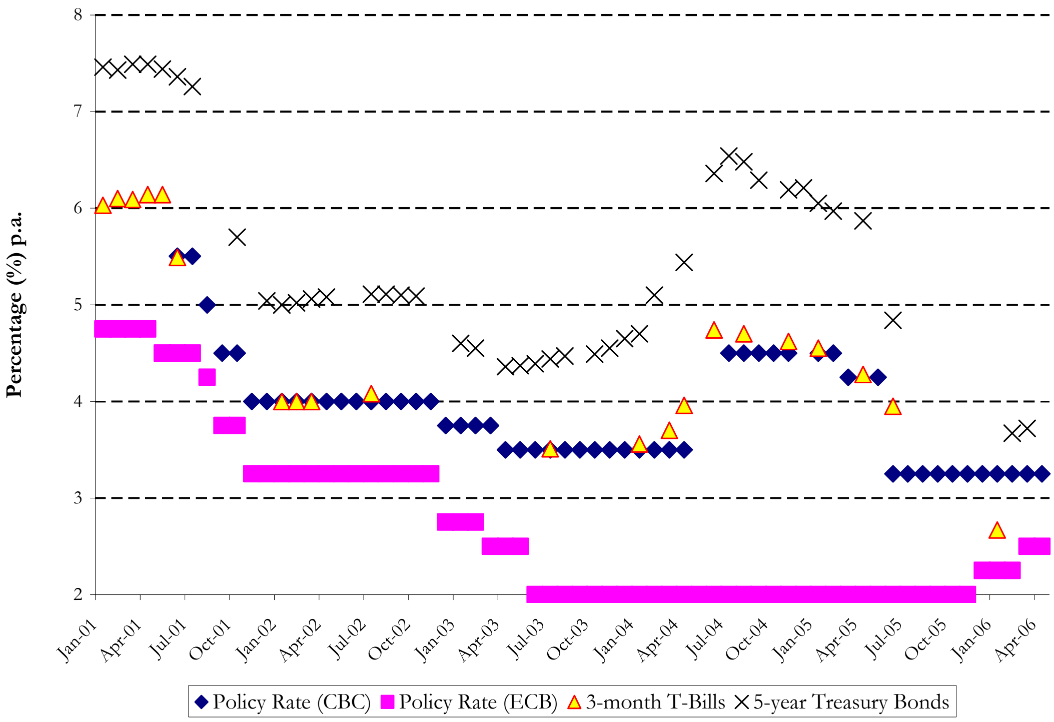
[32] The CYP, which was pegged to a currency basket (import-weighted for 1973-84 and trade-weighted for 1984-1991), was pegged instead to the ECU in June 1992 (with wide formal, but de facto narrow, fluctuation margins on either side of the central rate) and to the Euro in January 1999. The pound joined the Exchange Rate Mechanism (ERM-II) in May 2005; see IMF (September 1998 and March 2005).

[33] See Government of Cyprus (December 2005).

[34] According to Eurostat (2006b), the government debt to GDP level in Cyprus as of 2006Q1 (71.7 percent) was in line with the Eurozone average (71.3 percent) but above the EU average (63.4 percent).

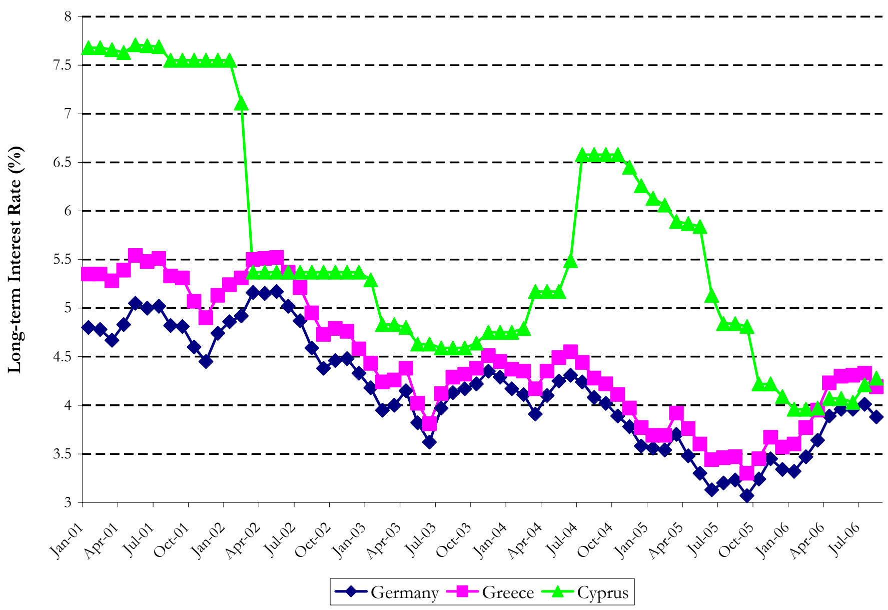
public debt levels (e.g. Italy, Greece). Expectations for lower interest rates (partly driven by increasingly positive prospects of Eurozone entry) have led domestic investors to shift from short- to long-term bonds in 2005-06.

Figure 12: Evolution of Interest Rates in Cyprus (January 2001 – April 2006)



Source: CBC, European Central Bank.
Note: The policy rate refers to the minimum bid rate on main refinancing operations (repo), which provide the bulk of liquidity to the banking system. Rates for government securities reflect primary market yields derived from auctions.

Figure 13: Evolution of Long-Term Interest Rates for Cyprus, Germany and Greece (2001-2006)



Source: European Central Bank (ECB).
Note: The above are harmonized long-term interest rates (maturities of close to 10 years) for convergence assessment purposes by the ECB. In the case of Cyprus, primary market yields are used given an illiquid secondary market.

Entry into the Eurozone in 2008 raises potentially important challenges for public debt management and debt market development in Cyprus, which are further described in the following sections. They primarily stem from the virtual merger of (what have been until now) two distinct sovereign debt market segments – domestic and foreign – that were operating in relative isolation from each other with different instruments and investor bases. Their merger has implications not only on their pricing structure (which, as previously mentioned, has already largely converged), but also on the instruments and investors that can be tapped; in addition, existing domestic debt market weaknesses will increasingly become exposed and could add to the cost of sovereign borrowing. Although this will not be an instantaneous process, it is necessary that the GoC fully understands and adequately prepares for these changes.

In this sense, it is instructive to note some of the main government debt management changes that have been adopted following the introduction of the Euro in other EU countries[35]: (i) greater autonomy of debt management agencies; (ii) increase and convergence in the residual maturity of debt in the Eurozone, with the average residual maturity close to six years in 2003; (iii) greater use of derivatives (especially interest rate swaps) to steer the duration of debt; (iv) significantly smaller issuance in non-Euro currencies (less than 2% of total government debt in the Eurozone); (v) increased foreign ownership of government debt, mainly from European institutional investors and especially for smaller Eurozone countries[36]; (vi) emphasis on fewer but larger liquid benchmark debt issues[37] in standard maturities (such as 10 years) in order to lower funding costs; (vii) increased use of debt syndication, particularly to reach foreign investors and to rapidly increase outstanding volume in order to build up liquidity in a particular issue; and (viii) increased securities trading on electronic platforms, although fragmentation in the securities market infrastructure and supervision continue to persist[38]. Since dominant sovereign debt managers in national markets have become smaller players in an integrated European capital market, competition has increased among them and their use of marketing resources to attract foreign institutional investors has expanded.

Of course, not all of the above developments are expected for newcomers to the Eurozone, especially those that are relatively small in size. In fact, according to the European Central Bank (January 2006), the Cypriot debt market was significantly smaller than most EU member states. In terms of absolute size as of end-2004, total government debt in Cyprus (EUR 6.4 billion) was bigger than the Baltic countries, Malta (EUR 2.9 billion), Romania (EUR 5.9 billion) and Bulgaria (EUR 4.6 billion), similar to Slovenia (EUR 6.7 billion), but smaller than Slovakia (EUR 11.3 billion), the Czech Republic (EUR 19.6 billion) and other EU countries. In addition, the annual gross domestic financing needs of the GoC are only around EUR 1-2 billion. Given the

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[35] See, for example, European Central Bank (December 2004) and Wolswijk G. and de Haan J. (March 2005). Of special interest are the debt management initiatives that were undertaken by Italy and Greece in their process of convergence – see Campanaro A. and Vittas D. (2004).

[36] Domestic ownership of government debt in the Eurozone decreased from 75% in 1997 to 54% in 2003.

[37] This does not apply for Treasury bills, which are mainly used for government cash management purposes and can therefore be issued more frequently than bonds. Partly as a result, there is a tendency for the Treasury bill market to remain primarily domestic.

[38] See, for example, Schmiedel H. and Schonenberger A. (July 2005).

importance of debt market size in coming up with suitable policy options for the challenges described below, the above countries together with Iceland and a few larger but still peripheral EU debt markets – Greece, Denmark, Finland, Ireland and Portugal – will be used as the peer group for comparison purposes in this section.

3.2 Challenge #1: Institutional Arrangements for Public Debt Management

For the purposes of this paper, there are three main areas covered under the institutional arrangements for public debt management: the legal framework, allocation of responsibilities between the GoC and the CBC, and institutional capacity.

In spite of the existence of a large academic literature on this topic, the actual objectives of public debt management tend to be quite narrow and specific. Precise wordings and emphasis differ from country to country, but the primary objective is to ensure financing of the government's annual borrowing at the lowest possible medium-term cost within acceptable risk parameters[39], which translates into a variety of operational targets or guidelines related to different cost and risk measures.

In the case of Cyprus, a number of laws cover the budgetary framework and debt issuance[40], but there does not exist a debt law that formalizes the objectives, decision-making process and consultation mechanisms between different entities involved in public debt management. The lack of such a law has implications for the actual debt management conduct, which are discussed below.

In its capacity as banker to the GoC and its agent for financial matters under articles 50 and 51 of the 2002 CBC Law, the CBC is (and has traditionally been) the administrator of public debt, including the issue of government securities. Actual management is carried out within a framework of arrangements between the MoF and the CBC. The former decides on the timing and amount/terms of debt issuance, while the latter advises the MoF on debt issuance matters and is solely responsible for operational and administrative matters relating to the issue and sale of securities (e.g. keeping the investor registry, payment of interest, redemption of securities, savings bonds draws etc.), but it does not charge the MoF for any services provided[41].

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[39] An example can be found in IMF and World Bank (December 2001 and March 2003): "*the main objective of public debt management is to ensure that the government's financing needs and its payment obligations are met at the lowest possible cost over the medium to long run, consistent with a prudent degree of risk*"; see also Currie E., Dethier J.J. and Togo E. (April 2003) for specific country examples.

[40] The Constitution sets out the budget preparation and execution process and defines the role of Parliament in it; Law 112/2002 complements it by detailing the legal framework for the management of public funds (including the authority of the Minister of Finance to extend loan guarantees). Law 92/1968 (as amended by Laws 50/1973, 142/2001 and 75/2003) covers the issuance of development stock and assigns the responsibility to the Minister of Finance (on the authorization of the Council of Ministers) to borrow subject to limits set by Parliament. Law 103/1989 (as amended by Laws 12/1996, 24/1997 and 75/1999) covers the issuance of Treasury bills (including ECP and EMTN) and assigns the responsibility for issuance (on the authorization of the Council of Ministers and subject to limits set by Parliament) to the CBC. In addition, the annual budget's adoption by Parliament is enacted as a Budget Law for that particular year.

[41] However, the CBC Law specifies a profit transfer arrangement in which 80 percent of net CBC profits (excluding revaluation gains/losses and exceptional circumstances) are transferred to the budget.

According to the MoF[42], the main short-term public debt management targets currently are to increase average debt maturity and to maintain foreign debt and short-term debt below levels of 25-30 percent and 10 percent of net public debt and domestic debt respectively. According to the CBC's website, its primary objective is "*to manage the local debt at the lowest possible cost [within acceptable risk parameters] taking into consideration the government financing needs, the prevailing market conditions and the maturity structure of the local debt*". In managing external public debt, the main objective is "*the achievement of the following targets:*

- *The securing of smooth cover of the government's external financing needs through a regular and continued access to the various segments of the international financial markets.*
- *The minimization of the cost of the public external debt, subject to the prevailing conditions in the international markets and acceptable exchange and interest rate risk levels.*
- *The achievement of a balanced and more extended maturity structure of the debt so as to avoid a heavy bunching of maturing debt which could potentially increase abruptly the fiscal burden and/or make the refinancing of the debt more difficult and/or less favourable than if such a refinancing was effected under more normal conditions*".

While the aforementioned objectives are unambiguous, what is lacking is a clearly-stated framework of how they are intended to be achieved and what is the expected trade-off between cost and risk considerations, which would facilitate an ex post assessment of the policy as well as accountability of attained results. This is particularly important because of the 'principal-agent' setting, whereby the MoF relies on the CBC to ensure that public debt management is handled appropriately. The lack of a clear and transparent debt strategy formulation process and of a consultation mechanism (e.g. via a debt committee[43] or a Memorandum of Understanding between the MoF and the CBC) also means that these arrangements remain informal and rely excessively on a few key individuals.

A Public Debt Management department, located within the Financial Markets and Public Debt Management Division of the CBC, handles the administration of public debt[44]**.** The back office is responsible for the settlement of transactions and debt registration/payments, while the middle office analyzes trends and monitors risk exposures, but does not perform comprehensive stress testing projections or undetake scenario analysis[45]. Different databases are used to record domestic and

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[42] See, for example, Republic of Cyprus (December 2006).

[43] Such a Committee was formed in 2004 in order to advance debt market development and public debt management issues, but it has generally been informal and rather inactive.

[44] There is also a debt unit in the MoF that is responsible for monitoring public and publicly-guaranteed debt, including loans.

[45] Budgetary forecasts and macroeconomic assumptions (including broad public debt projections) are included in the budget documents and the GoC's EU Convergence Programme, while the *Financial Report* of the Accountant General includes detailed statements of public debt, loan guarantees and financial assets and liabilities – see IMF (October 2005).

foreign debt, and these will need to be integrated going forward[46]. With regards to the front office, staff currently track market conditions and talk with investors, albeit on an ad hoc (as opposed to continuous) basis. Given the need to better gauge investor appetite and tailor the debt issuance program accordingly, it is likely that front office capabilities, including investor relations, will need to be strengthened.

Related to the above issues, and a contributing factor to the lack of progress to-date on this front, is a debate over the longer-term allocation of responsibilities between the MoF and the CBC. Article 51 of the 2002 CBC Law allows the MoF to remove the CBC from its debt management responsibilities provided that "*the Council of Ministers give the Bank notice of at least twenty four months before its pertinent decision takes effect*". The motivation for such an action stems from the increased practice in other EU countries of setting up a quasi-independent Debt Management Office (DMO) that typically reports to the MoF[47]. Under this arrangement, the MoF defines the medium-term strategy for debt management – based on its objectives, risk preferences and institutional and macroeconomic constraints – while the DMO implements that strategy and administers public debt issuance. However, actual practice among the peer group varies considerably based on country-specific circumstances, ranging from a quasi-independent DMO (Greece, Iceland, Ireland, Portugal and Slovakia) to a debt management department located within the MoF (Bulgaria, Czech Republic, Finland, Malta, Romania and Slovenia) or within the Central Bank (Denmark).

Another motivation for moving to an independent DMO stems from the well-documented potential conflict between monetary policy and public debt management when the central bank is responsible for both, stemming from the usually large influence of sovereign debt borrowing on domestic financial markets and its relationship with monetary/exchange rate policy. Example of potential conflicts by a central bank with dual mandates include manipulating financial markets (e.g. by deliberately maintaining excess liquidity for lower interest rates) to benefit government borrowing, or biasing the public debt's structure based on the monetary policy stance[48]. However, given that the CBC will no longer be responsible for monetary policy when Cyprus enters the Eurozone, such a concern becomes irrelevant.

The issue of the allocation of responsibilities between the CBC and the MoF has unnecessarily delayed much-needed strengthening of the institutional framework. As long as clear governance and reporting structures (including performance indicators) that ensure control and accountability are in place, practical considerations such as ensuring operational independence and the ability to attract highly-qualified staff by offering attractive salaries should be the main criterion. Irrespective of whether the debt management unit is ultimately housed inside the MoF, maintained within the CBC, or becomes a stand-alone agency[49], its main tasks remain the same, namely to:

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[46] In addition, while there is a comprehensive legal framework against fraud and corruption in the GoC, there is no separate code of conduct for employees of this department apart from the one for all civil servants (Public Service Law of 1990).

[47] See Currie E., Dethier J.J. and Togo E. (April 2003) for the experience of OECD countries with DMOs.

[48] See Sundararajan V., Dattels P. and Blommestein H. (1997) for more details.

[49] A stand-alone debt management agency could lead to the inefficient duplication of scarce resources and infrastructure, which would be an important drawback for a small country like Cyprus.

- formalize the debt management objectives, decision-making process, and consultation and information sharing mechanisms (e.g. via a debt law as in most peer group countries)
- expand its scope to cover all public debt-related exposures (i.e. including loan guarantees) and potentially cash management
- ensure operational independence, competence and professionalism (in terms of organization, staffing, systems and training).

These tasks are particularly important in view of the increased complexity and sophistication that is necessary to operate within the Eurozone, as described below.

3.3 Challenge #2: Modernization of Government Debt Market

Modernization and development of the government debt market is important not only because it will allow a more efficient financing of government borrowing needs (lower cost with prudent risk), but because it can also stimulate the development of the domestic capital markets. These markets would encourage more efficient and innovative private sector financing (e.g. mortgage securitization), would improve domestic investment opportunities for retail and institutional investors, and would help the financial system meet the more sophisticated needs of a prosperous society[50].

There were several important factors inhibiting modernization of the domestic government debt market in the past, such as a semi-captive investor base that was concentrated, homogeneous (in terms of liquidity, time horizons and risk preferences) and engaged in 'buy and hold' strategies, a small money market (and virtually non-existent interbank repo market), and absence of efficient settlement and custody facilities. Debt issuance tended to be fragmented and opportunistic, driven primarily by domestic liquidity conditions[51] and domestic-foreign interest rate differentials stemming from the (until recently) closed capital account and non-convertible CYP. Short-term expediency in government borrowing led to significant year-on-year changes in financing sources and lack of a consistent supply of securities and investment opportunities for the domestic market. In spite of the stated aim of the authorities to develop the government debt market, tapping different investor types at different times to finance the fiscal deficit has continued in practice (see Figure 14), while secondary market trading is minimal and the market is illiquid (see Figure 15)[52]. Infrequent issuance and the lack of a secondary market have forced investors to value their holdings using the latest available on-the-run primary auction result and then

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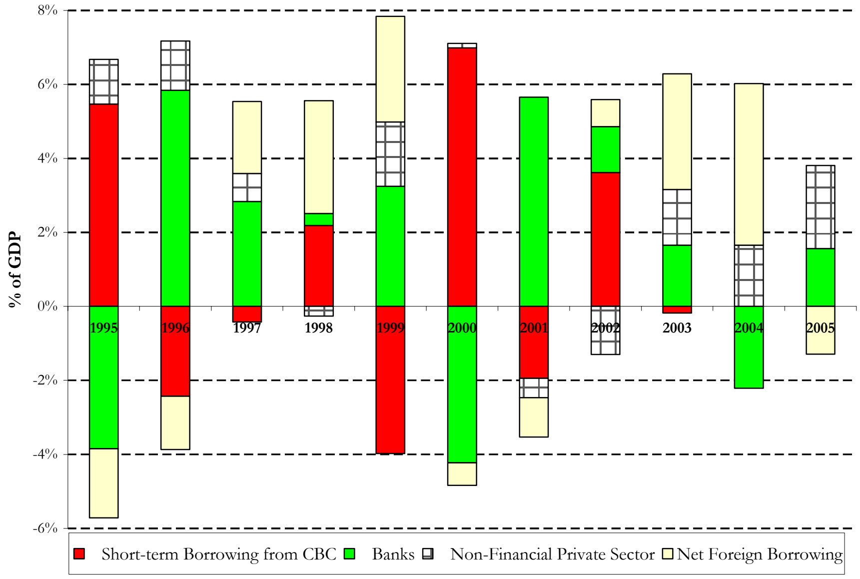
[50] In the context of increasingly unified Eurozone capital markets, a more radical perspective would be that the development of domestic capital markets (including for sovereign debt) is neither necessary nor sufficient for addressing the financial needs of (particularly smaller) Eurozone members. According to that viewpoint, which draws parallels between the evolution of Eurozone capital markets and the historical experience of the municipal debt market in the USA, public debt issuance and trading could eventually be entirely 'outsourced' via international syndication and Eurozone-wide inter-dealer trading platforms, thus sparing the costs of operating a large domestic debt management agency and an electronic platform.

[51] For example, the domestic liquidity squeeze during 1999-2000 (partly due to the flow of savings to the CSE boom) forced the authorities to resort to foreign borrowing and to CBC advances.

[52] Securities transactions exceeding CYP 100,000 can also occur outside the CSE (i.e. OTC), but they must be notified to it (although they are not publicly disclosed); some transactions have taken place, mostly between banks, but they are not large in size or frequency.

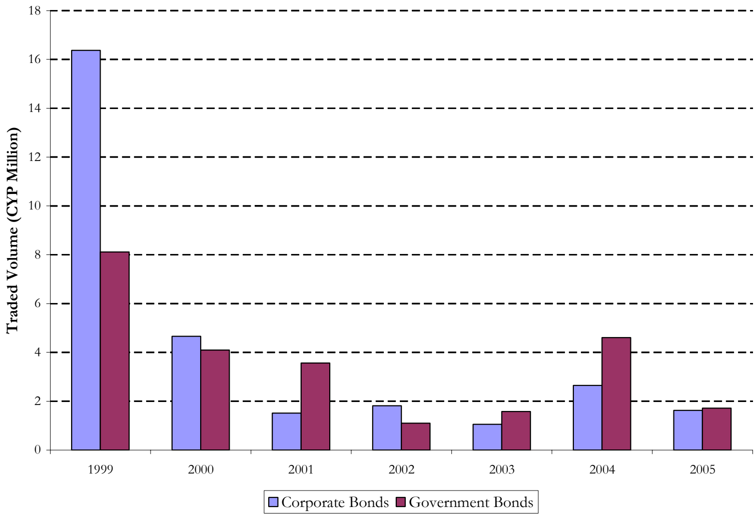
interpolating between different maturities; such a practice can result in significant pricing discrepancies between different financial institutions, which could also compromise the integrity of the government yield curve.

Figure 14: Net Financing of Fiscal Deficit (1995-2005)



Source: Ministry of Finance.

Figure 15: Annual CSE Traded Volume of Corporate and Government Bonds (1999-2005)



Source: CSE.
Note: Government bonds include 52-week Treasury Bills.

The modernization of the primary and secondary government debt market is a desirable and likely necessary objective in the case of Cyprus. Entry into the Eurozone could provide an opportunity for lowering borrowing costs, but it will require greater harmonization of primary issuance and trading mechanisms with those prevailing in the rest of the Eurozone. Modernization implies reform in several inter-related areas, such as the choice of debt instruments, auction practices (calendar, frequency and rules), use of primary dealers, development of a trading platform, efficient trading, clearing and settlement facilities, and appropriate market regulation.

The choice of instruments will be dictated by the need to attract foreign investors, both because of their greater sophistication and because of the elimination of barriers (e.g. different exchange rates) that have kept the local investor base in a semi-captive situation. This will imply a reduction in the frequency of primary debt issuance (especially for longer-term paper) and the use of fewer and larger benchmark 5/10-year issues (e.g. via re-opening of issues and buy-back programs) that have the potential to be more liquid and appeal to foreign institutional investors. The virtual merger of the distinct (until now) foreign and domestic market segments does not necessarily imply the elimination of the ECP and EMTN Programmes, which can continue by catering to specific needs and/or investor bases (e.g. non-EUR issuance).

Apart from a lower frequency, the primary market will need to be supported by greater predictability, transparency and policy credibility. Regular and predictable issuance reduces market uncertainty, facilitates investor planning and ultimately reduces sovereign borrowing costs. At present, an indicative annual timetable (unofficial calendar) is issued during the first quarter of each year, but it has proved unreliable. Frequent revisions to spending ceilings in the form of supplementary budgets have eroded confidence in the calendar since they lead to additional auctions[53].

Part of the reason for the lack of a proper calendar and for the prevailing issuance fragmentation can be attributed to the absence of a proper cash management system and ability to forecast future funding needs with a reasonable degree of accuracy. This has also on occasion forced the MoF in the past to over-finance the government borrowing requirements and keep substantial (and unremunerated) balances in the GoC's single government general account with the CBC. Proper cash management goes beyond budget compliance and accounting control, and aims to accurately forecast and cost-effectively manage the government's cash positions, including by minimizing and investing idle cash balances[54]. The authorities have recently adopted a comprehensive financial and management accounting system (FIMAS) that – in combination with a medium-term budgetary framework currently under preparation – is expected to improve control of expenditures and forecasting of funding needs, thus facilitating the preparation and publication of a credible debt issuance calendar.

Greater predictability and policy credibility also extends to the conduct of primary auctions. The auction mechanism currently suffers from the tendency of the GoC to decide on an ad hoc and relatively unpredictable basis how much it will borrow at

[53] The GoC response to cost overruns or revenue shortfalls in the past has been to resort to a supplementary budget; at their peak in 2003, fourteen supplementary budgets were presented.

[54] See Mu Y. (May 2006) for a description of best practices in government cash management.

each auction and how it will allocate accepted amounts between competitive and non-competitive bids. This has caused large variations in the auctioned/announced ratio – including the cancellation of various auctions – and in the share allocated to non-competitive bids (see Figures 16 and 17). In addition to the absence of maximum allotment limits per bidder, these shortcomings have tended to undermine the credibility of the auction mechanism and the integrity of primary market valuations, especially for longer-term securities that have been issued less frequently and in smaller amounts[55]. It is therefore imperative for the GoC to change the auction rules in order to introduce greater certainty for investors such as, for example, committing to purchase at least 80 percent of the announced issue (except in the case of a major market disturbance), imposing a maximum allotment ceiling to an individual bidder, and specifying the maximum amount offered to non-competitive bidders. This would help attract foreign investors to the domestic primary market, introduce more competition among bidders and ensure a robust primary yield curve.

The government debt market in Cyprus currently operates without a primary dealer system[56]. The CBC acted as the 'market maker of last resort' (i.e. with high bid-offer spreads) during the first few years after the introduction of listed government securities in the CSE. It has subsequently discontinued this policy, but has retained the right to intervene in the market if necessary.

The growing orientation of the market to foreign institutional investors will require the appointment of several primary dealers. Internationally, the appointment of primary dealers has been a controversial issue. Primary dealers have the potential to play a very useful role when there is a large number of potential investors, especially institutional investors. However, successful implementation of a primary dealer system will require effective supervision of the extent to which primary dealers fulfil their obligations and do not engage in open or tacit collusion[57]. Particularly in countries where the financial system is dominated by a small number of financial groups, a potential alternative may be to also grant direct access to primary auctions to other large investors that can meet the eligible auction criteria.

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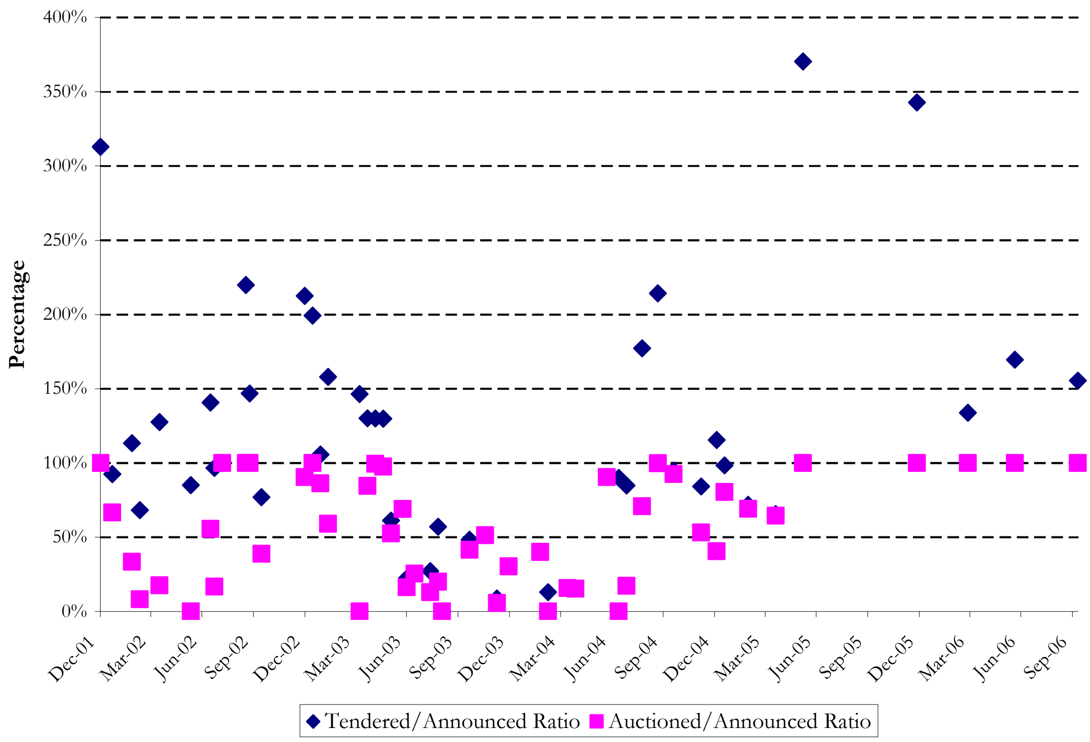
[55] There is no public information on the actual number of tendered or accepted auction bidders; if these are relatively few and related (e.g. the bank, insurance company and brokerage of the same financial group), it could also compromise the integrity of primary market valuations.

[56] Primary dealers are financial intermediaries that, in exchange for specific privileges (e.g. exclusive participation in primary auctions, access to central bank borrowing facilities, management of syndicated issues etc.), agree to perform specific obligations or functions in the operation of government securities markets (e.g. acting as advisors to the government, distributors in the primary market, market makers in the secondary market, and as communication conduits between the government and investors).

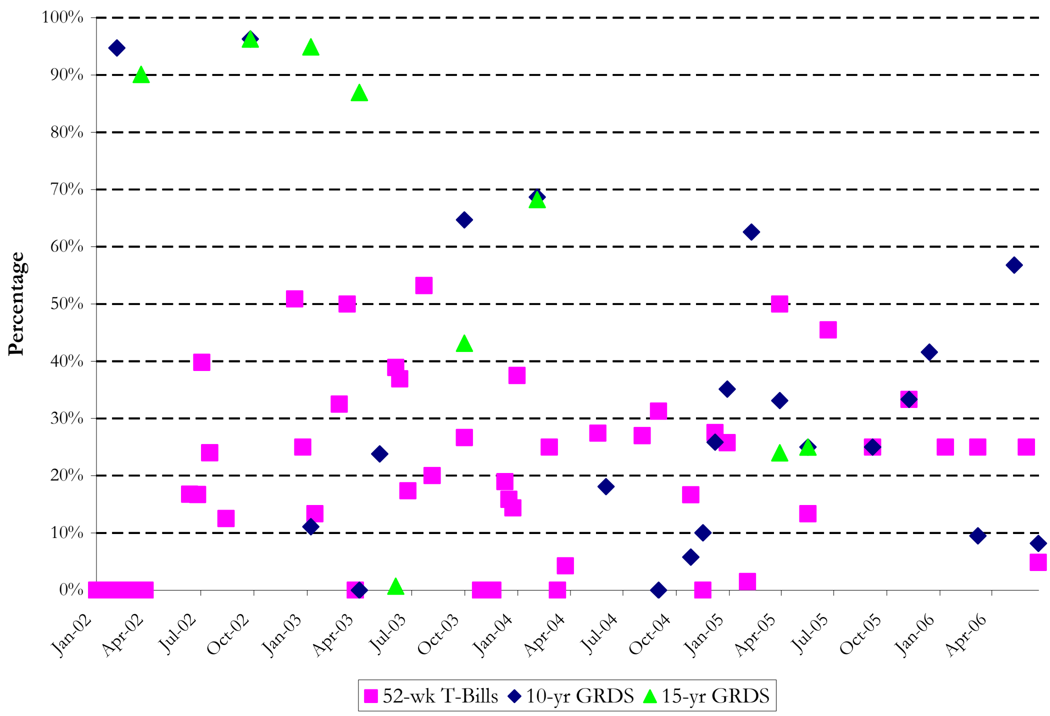
[57] See Dunne P., Moore M. and Portes R. (May 2006) for a discussion on the benefits and costs of acting as primary dealers in public debt markets.

Figure 16: Auction Performance of 5-Year Development Stock (2002-2006)



Source: CBC.
Note: The announced amount is given by the authorities prior to the auction, the tendered amount is the bid amount (both competitive and non-competitive) by auction participants, while the auctioned amount is the actual amount sold.

Figure 17: Non-Competitive Proportion Auctioned for Selected Government Securities (2002-2006)



Source: CBC.
Note: The non-competitive amount refers to the auction amount that is tendered and accepted at the weighted average yield of (accepted) competitive offers.

The path followed by virtually all peer group countries reinforces the need for a primary dealer system (only Malta and Slovakia have not yet adopted one, but they intend to do so in the near future) to support debt issuance via auctions or syndications in the case of Cyprus. This would entail the appointment of a fairly small number of primary dealers, some of whom would be selected from the ranks of global investment banks, without a requirement to maintain a local presence in Cyprus. This combination would facilitate, even ensure, access to best market intelligence on major European financial centres and the potential interest in Cypriot government bonds of large European institutional investors. The experience of other countries[58] has shown that a minimum of 5-7 primary dealers is necessary for an acceptable degree of competition, while privileges and responsibilities must be carefully calibrated to strike the right balance.

The installation of a robust electronic trading platform would facilitate the successful establishment of a primary dealer system that includes foreign reputable financial institutions. There exist a variety of options in other countries[59] – local stock exchange trading mechanisms, unregulated inter-dealer systems (e.g. Bloomberg), proprietary platforms (e.g. Bank of Greece's HDAT) and off-the-shelf customizable packages (e.g. MTS[60]) – that tend to co-exist by catering to different clienteles. However, there is a strong tendency in recent years to adopt MTS as the 'official' trading platform for the primary dealer system. Among the peer group of countries, Eurozone members – Greece (in addition to HDAT), Finland, Ireland and Portugal – have adopted a national MTS platform, while the others continue to rely on a combination of the local stock exchange and proprietary or inter-dealer systems[61].

In the case of Cyprus, whose small size implies the need for additional efforts to attract international banks as primary dealers and European institutional investors, a well-established and recognized solution such as MTS would represent an attractive option[62]. At the same time, other trading platforms (e.g. inter-dealer ones and the CSE) should also be permitted as they tend to complement the main market for different types of clients or trades. Standardized trading conventions with regard to pricing, trading units, trade agreement formats, settlement cycles, instruction formats, and time periods should also be adopted to facilitate trading and comply with best international practice. The permissible range of transaction types should eventually be expanded to include (in addition to cash transactions) repurchase agreements and

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[58] See Arnone M. and Iden G. (March 2003) for the results of a survey on different countries' experience with primary dealer systems.

[59] See Dunne P., Moore M. and Portes R. (May 2006) for a description of the structure and operations of EU and US public debt markets and of their respective trading platforms.

[60] The MTS (*Mercado dei Titoli di Stato*) is an electronic inter-dealer trading platform, owned by Borsa Italiana and Euronext, that dominates government bond trading in most EU member states. There are separate MTS markets for different countries, thus ensuring that corporate governance and market supervision remain with the respective domestic financial community. In addition, the EuroMTS is a pan-European bond trading platform for benchmark bond issues with a minimum of EUR 5 billion outstanding.

[61] Denmark also uses a national MTS electronic trading platform for government securities. In addition, there is the NewEuroMTS platform, which is dedicated to the trading of Euro-denominated government securities in the 10 recently-acceded EU member states (including Cyprus).

[62] An important advantage of this platform is that it allows users to automatically access all other European MTS platforms (and vice versa) without the need for additional software installation or costs.

exchanges, as well as derivatives, swaps, strips, short selling and securities lending. Electronic and automated trading facilities would need to cover order routing and processing as well as price quotation and dissemination.

Development of better clearing, settlement and custody facilities will also be necessary since the current arrangements are inefficient (settlement of a government securities transaction on the CSE currently takes as long as eight business days), thus limiting interest in trading, especially by foreign investors. All traded securities would be dematerialized[63], while the trading platform should be able to clear transactions involving European investors through the Euroclear and Clearstream International Central Securities Depositories (ICSDs). The use of these depositories will also facilitate securities custody for European investors. The CSE's Central Depository and Central Registry could act as the domestic securities depository and sub-custodian; alternatively, the CBC (as in Greece) or one of the ICSDs (as in Ireland) could take over the domestic depository role.

Finally, the efficiency of secondary markets will depend on the prudential, trading, and conduct regulation and effective supervision of market participants. Trading rules supporting pre- and post-trade transparency should be adopted in order to discourage market manipulation, inspire investor confidence in market integrity, and promote market liquidity; these must reconcile the conflicting business interests of different groups of market participants, while providing competitive trading opportunities for end investors. Risk-based prudential requirements for dealers and institutional investors will promote sound risk management as well as active trading and liquidity in the secondary market. Rules of conduct should aim to prevent fraud and misrepresentation, market manipulation, front running, and self dealing, and would need to be enforced consistently and effectively by a regulatory authority or by a self-regulatory organization (e.g. dealers' association)[64].

The need for modernization of the government debt market is well-known to the authorities and forms part of the GoC's stated long-term objectives[65] for public debt management and debt market development. In fact, an ad hoc committee made up of representatives from all interested parties (MoF, CBC, CSE, SEC) has already submitted a final report with many of the aforementioned recommendations (e.g. introduction of a primary dealer system using an electronic trading platform) to the MoF in October 2005, although there has been little progress to-date.

3.4 Challenge #3: Upgrading Investment Management Skills of Domestic Institutional Investors

While the Cypriot financial system is dominated by commercial banks, there are also long-term contractual savings institutions that are reasonably well developed (total

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[63] Although dematerialization has become standard practice in most countries, it is strictly speaking not required when there exist securities immobilization and domestic sub-custodian arrangements.

[64] See Dumoulin H.G. and Kruse M. (May 2004) for an overview (albeit somewhat dated) of the regulatory and supervisory framework for fixed income markets in Europe.

[65] See, for example, Republic of Cyprus (December 2006).

assets of at least 33 percent of GDP, or 72 percent of GDP if one includes the Social Security Funds). The size of contractual savings institutions is much lower than countries with traditional Anglo-American financial systems (e.g. Australia, Canada, Ireland, South Africa, UK, US) and those of some continental European countries (e.g. Denmark, the Netherlands, Sweden and Switzerland), but larger than institutional investors in most Southern and Eastern European countries (including Greece, Italy, Portugal and Spain).

A large and heterogeneous institutional investor base with different time horizons and risk preferences is important for ensuring strong and stable demand for government debt securities under a wide range of market conditions. The presence of such investors in Cyprus provides opportunities for expanding domestic bond market activity and gives some ‘policy comfort’ by reducing the dependence of the domestic bond market on the willingness of large European institutional investors to participate, although attracting such investors should remain a prime objective of the authorities. However, as explained below, the investment management skills of these investors must be upgraded in order for them to contribute to domestic debt market development going forward.

During the phase of rapid accumulation of long-term capital resources, pension funds and life insurance companies tend to engage in buy-and-hold strategies and to rebalance their portfolios through changes in the asset allocation of their net new inflows. During this phase, they can be important participants in the primary debt market, but they typically need to reach a mature stage before they become active participants in the secondary debt market, i.e. when their new net inflows become a small fraction of their total assets. Upon reaching this stage of maturity, institutional investors tend to engage in more active trading to rebalance their portfolios via the use of investment consultants, specialized asset management mandates and monitoring of investment performance against appropriate benchmarks.

However, many Cypriot institutional investors, despite reaching a fairly mature stage in their development, have not adopted modern asset allocation strategies and investment policies. Their operations have been adversely influenced by the captive requirements imposed on them by government regulation (as in the case of the Social Security Funds), by the presence of financial repression (thus limiting investment opportunities and the need for sophistication), and by timidity linked to low risk tolerance and the absence of appropriate incentive mechanisms (governance and asset allocation framework). These factors largely explain the small portion of their portfolios that is invested abroad, as well as their investment emphasis (at least in the case of pension and provident funds) on bank deposits.

The completion of the financial liberalization process and changes in the operating environment introduced by EU and Eurozone entry call for the abolition of remaining investment restrictions and the modernization of the regulatory framework of local institutional investors. The former can be attained by abolishing existing compulsory investment requirements in government bonds (e.g. for insurance companies and the pension funds of semigovernmental organizations) and allowing boards of trustees to comply with the "prudent person principle" in carrying out their investment policies. In addition, a more market-oriented framework for the Social Security Funds should be adopted, subject to a prudent approach that adequately balances risks and returns.

As in other countries, modernization of the regulatory framework of local institutional investors requires the board of trustees to play a central role in the specification of risk tolerance and the formulation of investment policy, taking into account the primary objectives of their institution, the structure of liabilities, the composition of participating members and policyholders, and other relevant factors. The authority for day-to-day decision making should be further delegated to a specialized Investment Management Committee at the operating level, and institutional investors should seek to hire (and carefully monitor) experienced external asset managers and award investment mandates that utilize the special expertise developed by different managers. Pension fund reform modeled on EU Directive 41/2003, which was recently approved by the Cyprus Parliament, would address some of these concerns and would move oversight responsibility for pension and provident funds to the SEC. Upgrading institutional investors' investment management skills will also ensure their more active participation in the domestic government debt market, which will further diversify the investor base and facilitate market trading and liquidity.

4. CONCLUSIONS

Public debt management and debt market development in Cyprus can be conceptually divided into two distinct stages: the period of financial repression (prior to 1996), and the period of progressive financial liberalization culminating with EU entry (1996-2005). The former stage was characterized by CBC reliance on direct instruments of monetary control, a closed capital account and the presence of a domestic captive investor base, which limited the need for sophistication in public debt management or for developing the local debt market. The latter stage was characterized by a carefully sequenced financial liberalization process that has led to market-based issuance mechanisms and a more sound public debt composition in terms of the range of instruments, maturities and currencies. However, there remain important weaknesses: large reliance on captive Social Security Funds to finance gross public debt, weak institutional arrangements for public debt management, operational shortcomings in the primary market, lack of a secondary debt market, relatively unsophisticated domestic institutional investors, and a shallow corporate bond market.

The forthcoming entry of Cyprus into the Eurozone as of January 2008 will likely represent a third stage in the evolution of public debt management and debt market development, and it is an opportunity to address some of the aforementioned weaknesses. Changes are going to be prompted by the virtual merger of (what have been until now) two distinct sovereign debt market segments – domestic and foreign – that were operating in relative isolation from each other with different instruments and investor bases. The merger has implications not only for their pricing structure (which has already largely converged), but also for the instruments and investors that can be tapped; in addition, existing debt market weaknesses will increasingly become exposed and could add to the cost of sovereign borrowing. Although this will not be an instantaneous process (especially given the small debt market size), it is necessary to fully understand and adequately prepare for these changes. In particular, three main (and mutually reinforcing) challenges have been identified and analyzed in this paper:

- institutional arrangements for public debt management
- modernization of the government debt market
- upgrading investment management skills of domestic institutional investors.

Institutional arrangements for public debt management cover the legal framework, allocation of responsibilities between the GoC and the CBC, and institutional capacity. There is a clear need to strengthen the institutional framework by formalizing debt management objectives, the decision-making process, and consultation and information sharing mechanisms; expanding the scope of the public debt management unit; and ensuring operational independence, competence and professionalism in terms of organization, staffing, systems and training. The issue of the allocation of responsibilities between the CBC and the MoF (i.e. whether this unit is ultimately housed inside the MoF, maintained within the CBC, or becomes a stand-alone agency) should not detract from the above list of tasks. As long as clear governance, objectives, performance benchmarks and reporting structures that ensure control and accountability are in place, practical considerations – such as ensuring operational independence and the ability to attract highly-qualified staff by offering attractive salaries – should be the main criterion.

The modernization of the primary and secondary government debt market is a desirable and likely necessary objective in the case of Cyprus. Modernization implies reform in several inter-related areas, such as the choice of debt instruments, auction practices (calendar, frequency and rules), use of primary dealers, development of a trading platform, efficient trading, clearing and settlement facilities, and appropriate market regulation. The choice of instruments will be dictated by the need to attract foreign investors, which will imply a reduction in the frequency of primary debt issuance and the use of fewer and larger benchmark issues. The primary market will need to be supported by greater transparency and policy credibility via regular and predictable issuance, which will be facilitated by the establishment of a primary dealer system, stricter rules in the conduct of auctions and better cash management practices. The installation of an electronic trading platform such as MTS would help attract foreign reputable financial institutions, while other trading platforms (inter-dealer ones and the CSE) should also be permitted as they tend to complement the main market for different types of clients or trades. The selected platform should be able to facilitate the clearing and custody of government securities by European investors via the use of ICSDs. Finally, the efficiency of secondary markets will depend on suitable prudential, trading, and conduct regulation and effective supervision of market participants.

The presence of sizeable long-term contractual savings institutions in Cyprus provides opportunities for expanding domestic trading activity and gives some ‘policy comfort’ by reducing the dependence of the domestic bond market on the willingness of large European institutional investors to participate; however, investment management skills of domestic investors (especially pension and provident funds) must be upgraded in order for them to contribute to debt market development going forward. The completion of the financial liberalization process and changes in the operating environment introduced by EU and Eurozone entry call for the abolition of remaining investment restrictions and the modernization of the regulatory framework of local institutional investors. The former task can be attained by abolishing existing compulsory investment requirements in government bonds and allowing boards of trustees to comply with the "prudent person principle" in carrying out their investment policies. The latter task, which will be greatly supported by the recently-approved pension fund reform modeled on EU Directive 41/2003, can be achieved by the establishment of appropriate incentive mechanisms for boards of trustees to make proper asset allocation decisions and to become more sophisticated in their approach.

The above represents a fairly large and ambitious policy reform agenda that calls for an integrated approach based upon good international practice – however, it should be noted that this agenda is not new for the authorities. In fact, the GoC’s stated long-term objective for public debt management and debt market development is to reform the present framework by introducing the majority of the aforementioned policy recommendations. What is important going forward is for the authorities to promptly resolve outstanding issues and prepare the groundwork for the introduction of these reforms via a carefully sequenced roadmap.

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