Public Debt Management and Debt Market Development in Cyprus: Evolution, Current Challenges and Policy Options

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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. Although significant progress has recently been made in terms of using market-based mechanisms and adopting a more sound public debt composition, there remain important weaknesses that need to be addressed in view of the forthcoming Eurozone entry. Three main (and mutually reinforcing) challenges are identified and analyzed: institutional arrangements for public debt management, modernization of the government debt market, and upgrading investment management skills of domestic institutional investors. The proposed reform agenda is fairly ambitious and calls for an integrated approach given the inter-linkages between reforms. 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.

Keywords: Cyprus, public debt management, debt market development.

1. Introduction

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. The motivation is twofold:

- the increased importance currently being placed on this topic for overall financial sector development;
- 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.

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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).

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 direct monetary instruments¹ by the Central Bank of Cyprus (CBC) 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.

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)². The existence of foreign financing at preferential rates, combined with strong real growth rates (7 percent on average over 1976-2005), helped to partly mitigate the

¹ These included a liquidity ratio of around 20-30 percent of banks' domestic currency deposits, system-level or individual bank credit ceilings, administrative setting of various types of interest rates and a statutory 9 percent lending rate ceiling, and strict restrictions on capital account transactions.

² 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 (2005c).

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.

FIGURE 1

Evolution of fiscal accounts (1975-2005)

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).

Sources: Ministry of Finance, IMF.

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)³ on market terms.

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

FIGURE 2

Evolution of public and publicly guaranteed debt (1975-2005)

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.

Sources: Authors' analysis, Central Bank of Cyprus, Ministry of Finance, IMF.

Domestic financing came from three main sources. First, borrowing took place from the CBC, either via short-term direct advances or securities investments. 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. This intra-governmental financing is included in the definition of gross – but not net

³ ECP issuance could be denominated in several currencies with maturity from 7 to 365 days.

– public debt⁴, and it has accounted for the increasing wedge between gross and net public debt-to-GDP ratios over time (see below). 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.)⁵. A large part of these purchases was in fact compulsory – for example, by commercial banks (Treasury bill investments to satisfy the CBC liquidity ratio) as well as by 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.

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.

By the end of the period (1995), the gross and net public debt were 77 and 50 percent of GDP respectively⁶. Around one-fourth of net public debt

⁴ In this paper, gross public debt refers to the total debt contracted by the public sector (see footnote 3) 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.

⁵ 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.

⁶ 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 and the Cyprus Telecommunications Authority, which represented an additional 10 percent of GDP in 1995.

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.

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. 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 liberalization⁷. 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 a '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 starting in 1996;
- abolition of rediscounting of government securities by the CBC (1996);
- listing and trading on the Cyprus Stock Exchange (CSE) of government securities issued through auction (1997);

⁷ See Stephanou (1996) and IMF (2001 and 2006) for more details.

- 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 follows⁸:

- 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 auctions⁹. Although Treasury bills are generally issued more frequently than development stock, neither type of security is issued on a regular basis. 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. 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, as well as on the share of non-competitive to competitive bids. All issuance is in book entry form, while clearing and settlement (and 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). 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

⁸ See ECB (2003 and 2004a) and EIB (2004) for more details.

⁹ 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).

performed by the CSE, 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, in spite of the fact that taxation of securities is relatively low, 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.

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)¹⁰ 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 by comparing the evolution of public debt by maturity between 1995-2005 (see Figures 3 and 4):

- 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 2006¹¹

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

¹¹ Data for the average duration of gross and net public debt in those years was not available.

- 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)¹².

It is worth pointing out that public indebtedness is actually lower than the figures show because of the existence of sinking funds¹³. Although these were discontinued in 2002 due to harmonization with EU practice (Eurostat does not recognize them for public debt measurement purposes), their 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.

FIGURE 3

Structure of gross public debt by investor – % of GDP (2005)

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.

Sources: Authors' analysis, Ministry of Finance, IMF.

¹² 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.

¹³ 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 4

Structure of net public debt by instrument – % of GDP (2005)

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 1 year) instruments respectively. Figures do not include sinking funds or publicly guaranteed debt.

Source: Authors' analysis, Ministry of Finance, IMF.

Finally, the investor base has also changed moderately over this period:

- 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)
- stable 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).

2.3. Domestic investor base

Cyprus has a well developed and successful privately-owned financial system serving the needs of both residents and non-residents. Its total market size is very large compared to international standards, while the

structure is bank-oriented¹⁴. There is a sizeable institutional investor base that comprises the Social Security Funds (39 percent of GDP, controlled by the GoC), insurance companies, listed closed-end investment companies and pension and provident funds¹⁵, 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 and in order to secure low-cost financing sources for government debt.

FIGURE 5

Investor base of GoC development stock - % of total (2005)

Note: Other includes cooperative societies, brokers, public corporations etc.

Source: Ministry of Finance.

Who are the main investors in domestic government securities? As can be deduced from the aforementioned discussion and from Figure 5, commercial banks represent the bulk of the investor base and have increased their participation in recent years. This is not surprising:

¹⁴ As of 2005, the banking (excluding international banking units but including cooperatives), insurance (both life and non-life) and securities (mostly CSE capitalization) sectors represented 351, 21 and 83 percent of GDP respectively; the pension and provident funds represented another 10 percent of GDP.

¹⁵ 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.

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 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 Cyprus's position as an offshore financial centre) for domestic purposes. Since there were few available investment options in the local market, banks tended to purchase 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 this, their investments in government securities are estimated to represent less than one-third of their total portfolio. In fact, 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, have a significantly larger proportion of bond investments, while closed-end funds tend to invest primarily in equities.

This conservative behavior of asset managers and boards of trustees of provident and pension funds 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 benefit¹⁶. The 1999-2001 CSE market crash¹⁷ 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.

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.

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 placement¹⁸ since at least the early 1980s, the market has not grown in size. Only a handful of companies use bonds as a financing instrument – in fact, the majority of these on 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. As described in the next section, trading is minimal and the secondary market is virtually non-existent.

Some corporate bonds have been privately placed in order to speed up their issuance and avoid CSE listing requirements/fees, but they remain few and small in size. A few sub-sovereign bonds have also been issued, 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.

The shallowness of the corporate bond market can be attributed to several factors. Firstly, the financial system structure in Cyprus has traditionally

¹⁶ See Investment & Pensions Europe (2006).

¹⁷ 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.

¹⁸ 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.

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, 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 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.

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 2008¹⁹. 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

¹⁹ 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 (1998 and 2005a).

2004, will be required in order to attain the Maastricht criteria. The government expected the fiscal deficit and net public debt ratios to drop below 2 and 67 percent of GDP respectively in 2006, 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 EU²⁰, 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.

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. 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.

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 countries²¹: (i) greater autonomy of debt management agencies; (ii) increase and convergence in the residual

²⁰ See Government of Cyprus (2005).

²¹ See, for example, European Central Bank (2004b) and Wolswijk and de Haan (2005). Of special interest are the debt management initiatives that were undertaken by Italy and Greece in their process of convergence – see Campanaro and Vittas (2004).

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 countries²²; (vi) emphasis on fewer but larger liquid benchmark debt issues²³ 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 persist²⁴. 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 states²⁵. Given the 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.

²² Domestic ownership of government debt in the Eurozone decreased from 75% in 1997 to 54% in 2003.

²³ 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.

²⁴ See, for example, Schmiedel and Schonenberger (2005).

²⁵ 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.

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 parameters²⁶, 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, 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.

According to the MoF²⁷, 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

²⁶ An example can be found in IMF and World Bank (2001 and 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, Dethier and Togo (2003) for specific country examples.

²⁷ See, for example, Republic of Cyprus (2006).

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".

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 committee²⁸ 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 debt²⁹. 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 undertake scenario analysis. Different databases are used to record domestic and foreign debt, and these will need to be integrated going forward. 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

²⁸ 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.

²⁹ There is also a debt unit in the MoF that is responsible for monitoring public and publicly-guaranteed debt, including loans.

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 MoF³⁰. 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. Examples of potential conflicts by a central bank with dual mandates include manipulating financial markets (e.g. by deliberately maintaining excess liquidity to lower interest rates) to benefit government borrowing, or biasing the public debt's structure based on the monetary policy stance³¹. 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,

³⁰ See Currie, Dethier and Togo (2003) for the experience of OECD countries with DMOs.

³¹ See Sundararajan, Dattels and Blommestein (1997) for more details.

maintained within the CBC, or becomes a stand-alone agency³², its main tasks remain the same, namely to:

- 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.

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 conditions³³ and domestic-foreign interest

³² 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.

³³ 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.

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, while secondary market trading is minimal and the market is illiquid. 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 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.

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 Programs, 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 auctions³⁴.

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 balances³⁵. 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 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 Figure 6). 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 amounts³⁶. 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

³⁴ 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.

³⁵ See Mu (2006) for a description of best practices in government cash management.

³⁶ 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.

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.

FIGURE 6

Auction performance of 5-year development stock (2002-2006)

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 participants, while the auctioned amount is the actual amount sold.

Source: Central Bank of Cyprus.

The government debt market in Cyprus currently operates without a primary dealer system³⁷. The CBC acted as the 'market maker of last resort'

³⁷ 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,

(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 are 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 collusion³⁸. 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.

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 centers and the potential interest in Cypriot government bonds of large European institutional investors. The experience of other countries³⁹ 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

distributors in the primary market, market makers in the secondary market, and as communication conduits between the government and investors).

³⁸ See Dunne, Moore and Portes (2006) for a discussion on the benefits and costs of acting as primary dealers in public debt markets.

³⁹ See Arnone and Iden (2003) for the results of a survey on different countries' experience with primary dealer systems.

countries⁴⁰ – 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. MTS⁴¹) – 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 systems⁴².

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 option⁴³. 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 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.

⁴⁰ See Dunne, Moore and Portes (2006) for a description of the structure and operations of EU and US public debt markets and of their respective trading platforms.

⁴¹ 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.

⁴² 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).

⁴³ 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.

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, 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)⁴⁴.

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 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 some 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 further progress to-date.

⁴⁴ See Dumoulin and Kruse (2004) for an overview (albeit somewhat dated) of the regulatory and supervisory framework for fixed income markets in Europe.

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. The size of contractual savings institutions is much lower than in 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, 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

The forthcoming entry into the Eurozone as of January 2008 will likely represent a third stage in the evolution of public debt management and debt market development in Cyprus, and it is an opportunity to address some of the aforementioned structural and institutional 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. In particular, three main (and mutually reinforcing) challenges have been identified and analyzed: institutional arrangements for public debt management; modernization of the government debt market; and upgrading the investment management skills of domestic institutional investors.

The proposed reform agenda is fairly large and ambitious, and it calls for an integrated approach based upon good international practice – however, 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 many of the aforementioned policy recommendations. What is important going

forward is to promptly resolve outstanding issues and prepare the groundwork for the introduction of reforms via a carefully sequenced roadmap.

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