Hellenic Republic
Ministry of Finance
Public Debt Division

Recent Developments in Public Debt Management

May 2000

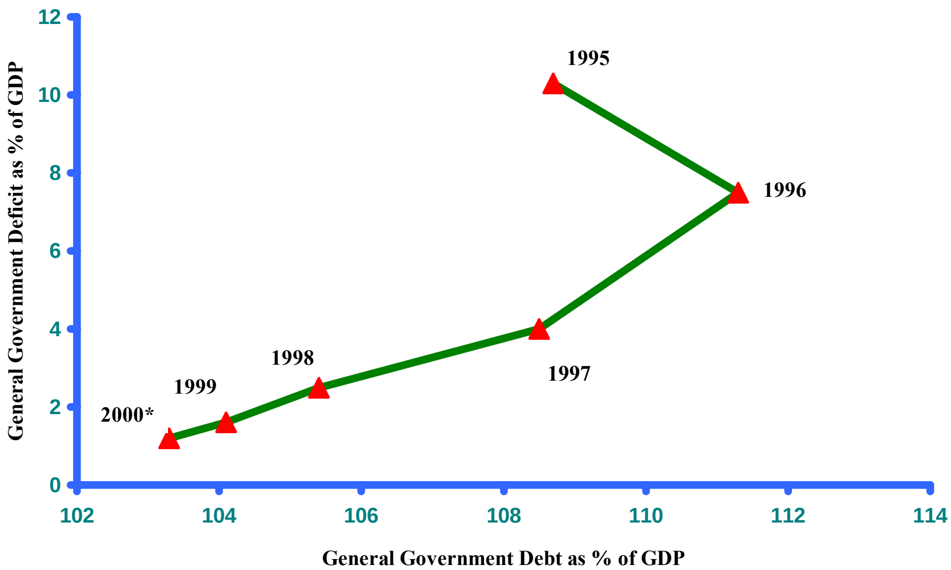
CONTENTS

GENERAL

Greece, having already achieved nominal convergence, is ready for participation in the Euro zone, thus sharing the benefits and responsibilities that the common currency entails. The submission of the official request for joining the Euro zone (March 2000), approved by both the European Commission and the European Central Bank, and the recent revaluation of drachma by 3.5% (January 2000), reflect the fact that Greece comfortably satisfied (and in most cases by a large margin) the five Maastricht criteria.

With a 3.5% GDP growth (among the highest in EU) and a 1.6% budget deficit in 1999 (compared to an initial budget estimation of 1.9%), despite the Balkan crisis and the severe impact of the disastrous earthquake in Athens, the greek economy demonstrates its momentum and sustainability, thus confirming its steady course towards EMU.

Chart 1
General Government Debt and Deficit as % of GDP
(Convergence criteria)



* Provisional data

Concerning the general government debt as a % of GDP, Greece pursued the reduction of the relevant ratio even further. After a decline by approx. 4% of the debt to GDP ratio in 1998, (outperforming the average reduction among the EU member states), the ratio was further reduced to 104.1% in

1999, mainly due to the significant rise of the primary surplus and the icrease of the privatisation proceeds.

Moreover, the implementation of an effective management of debt, the containment of state guarantees and a number of measures that have been undertaken intended to deepen the capital market and improve the operation of the primary and secondary bond market, have also contributed to the rapid decline of the debt to GDP ratio.

The recent upgrade of Greece by Moody´s from Baa1 to A2 and Standard & Poor's to A- from BBB for the long-term debt, reflects the country's progress to date in implementing stability-oriented economic policies as well as the high credibility that the greek ecomomy merits by the markets.

The country being on the path of rising growth driven by public and private investment, the government's main objective remains the improvement of welfare. To accomplish the economic aspects of this target, the government implements a prudent fiscal policy while at the same time tries to meet social needs through structural reforms, aiming at the creation of a more innovative, dynamic and better performing economic environment.

A. CENTRAL GOVERNMENT DEBT

In recent years **the government's primary objective is to reduce the debt to GDP ratio at a rapid pace.** Since the government debt criterion should be assessed not only by examining the path of the debt ratio but also by analysing its underlying dynamics, the Ministry of Finance implements an efective management of the oustanding central government debt, by setting annual and long term targets and adopting policies, aiming primarily at a more efficient restructuring of the debt and consequently at the reduction of its servicing cost. The policy objectives, are described in the following sections:

1. Policy objectives

a) The **restructuring of the outstanding debt** (domestic and foreign)

b) The **extending** of the average maturity of the debt structure and the **smoothening** of payments for interest and amortization throughout the year in order to allow greater flexibility. The range of debt instruments has been broadened and the amount of T-Bills in circulation has been reduced, having been replaced by longer maturity papers. In addition, prepayments and reverse auctions of previous issues are conducted at a large extent in order to relieve overburdened periods.

c) The launch of **significant privatisation operations** and the use of the proceeds to redeem the outstanding debt. These sales of government-owned public enterprises are also accompanied by favourable side effects, since they increase the efficiency of the ecocomic system and induce a durable reduction of government transfers to these enterprises.

d) The improvement of the Government Securities Market. In view of the increased competition arising from the integration of the euro bond government market, the performance of the "national" market is determined by factors such as the transparency of the primary market, the supply and demand situation in the repo market, the hedging possibilities and the implementation of electronic trading techniques. Hence, well developed repo and futures markets are necessary for active trading and management of interest rate risk.

Towards this end, the government has undertaken a number of measures such as legal and institutional reforms, the abolition of withholding tax for non-residents on bonds as well as on repo agreements, the operation of the Electronic Trading System (HDAT), etc. in order to establish a modern bond market, which ensures flexibility, efficiency, speed and transparency in transactions. All bond auctions (including reverse auctions) as well as an increasing volume of transactions in the secondary market are already conducted through the Electronic Trading System.

A **repo market**, also supported by the Electronic Trading System, has been established, aiming at the reduction of price volatility and improved liquidity. Finally, the Ministry, wishing to provide investors with a hedging instrument, has established a market for **Futures on the 10 year fixed rate bonds (benchmark)**, in the Athens Derivative Exchange, thus increasing the liquidity of the bond market even more.

e) The reduction of servicing cost (payments for interest and amortization).

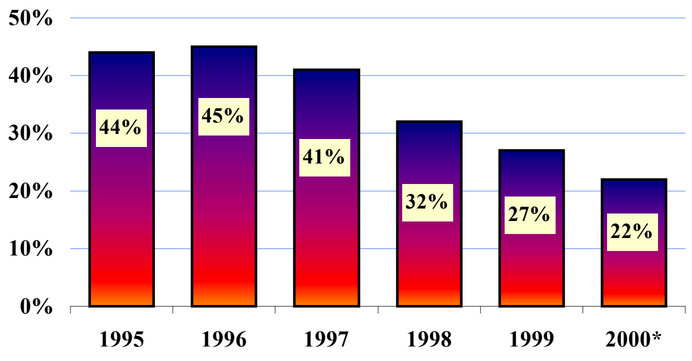
Table 1
Interest Payments as % of GDP

1995	1996	1997	1998	1999	2000*
12,7%	11,8%	9,8%	9,1%	8,7%	8,0%

* Estimates

The borrowing requirements are mainly financed through fixed interest rate debt instruments, in order to reduce the effects of the interest-rate volatility to the servicing cost of the debt. More sophisticated financial market instruments (interest rate swaps, extention swaps etc.) are used in a later stage for the management of risk. The reduced servicing payments and the high primary budget surpluses resulted in the diminishing of the volume of new borrowing as a percentage of GDP as shown in Chart 3.

Chart 2
New Borrowing as % of GDP



* Estimates

d) In the State Budget a target is set every year concerning the annual volume of the **domestic and foreign** new borrowing and the diversification of debt instruments, reflecting the above policies of the Ministry of Finance for the management of debt.

- *Domestic currency debt*

  The main objective in the domestic market is to offer investors debt instruments which will induce a change in their preferences towards long maturity fixed interest rate bonds. In this context**,** a 20 year fixed rate bond was issued in January 2000, aiming mainly at institutional investors**.** Through **the concentration on specific segments of the maturity range**, the government pursues the development of a more liquid benchmark market, hence resulting in the diminishing of their spreads versus benchmark bonds in the Euro market (especially for the 10-year fixed interest rate bonds).

- *Domestic - foreign debt relationship*

  Concerning the foreign borrowing, the target set is to reduce the foreign debt as a ratio to the overall outstanding debt at a level below 20% as well as to achieve a more efficient structure of currencies.

- *Retail investors oriented policy*

  The policy introduced in September 1998 in order to approach the retail segment of the market and at the same time to change the retail investors' preferences from short maturities (T-Bills) to longer maturities, continues to be pursued by issuing saving certficates and balladur type bonds.

2. Central Government Debt Structure.

The Central Government Debt as a % of GDP diminishes year by year at a fast pace, as a result of the policy adopted and the high primary budget surpluses. The evolution of both the Central and General Government Debt shows in Table 2.

Table 2
Evolution of Central and General Government Debt as % of GDP

	1995	1996	1997	1998	1999	2000*
Central Gov. Debt as % of GDP	117.4	121.1	118.2	115.7	114.9	114.7
General Gov. Debt as % of GDP	108.7	111.3	108.5	105.4	104.1	103.3

* Estimates

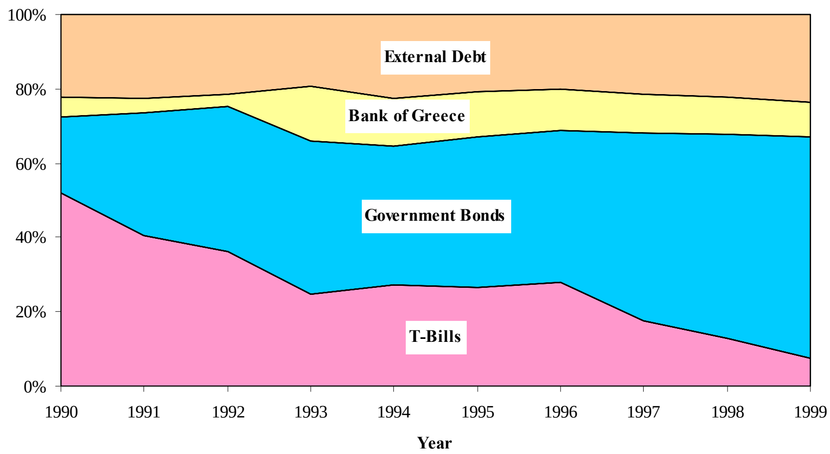
The composition of Central and General Government Debt appears in Table 3 below:

Table 3.
Central and General Government Debt
(in billions GRD; end of period)

	Years			
	1996	**1997**	**1998**	**1999**
A. Central Government Debt	**36.246**	**39.040**	**41.552**	**44.014**
1. Treasury Bills	10.012	6.800	5.322	3.078
2. Government Bonds	14.747	19.563	22.649	26.269
3. Bank of Greece and other loans	4.255	4.347	4.431	4.473
4. External Debt	7.232	8.330	9.150	10.194
B. Inter-governmental Debt	**-2.923**	**-3.198**	**-3.718**	**-4.111**
C. General Government Debt (A-B)	**33.323**	**35.842**	**37.834**	**39.903**
as % of GDP	**111,3**	**108,5**	**105,4**	**104,1**
GDP	29.935	33.021	35.910	38.319

Apart from the reduction of the debt to GDP ratio, special efforts have been undertaken for the restructuring of debt. In Chart 4 appears the gradual substitution of short-term T-Bills by longer-term bonds. Hence, on 31/12/99 the volume of T-Bills accounted for only 6.99% of the total outstanding debt, compared to 51.50% in 1990.

Chart 3
Percentage Composition of Central Government Debt



The composition of central government debt by major categories for the years 1997-1999 appears in Table 4.

Table 4. Major categories of Central Government Debt, 1997-1999

	Fixed	Floating
1997	47.4%	52.6%
1998	53.9%	46.1%
1999	60.1%	39.9%

	Tradable	Non-tradable*
1997	81.9%	18.1%
1998	83.7%	16.3%
1999	79.3%	20.7%

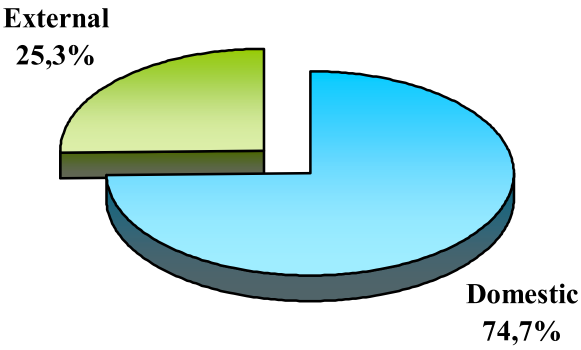
	Domestic	Foreign
1997	78.7%	21.3%
1998	78.0%	22.0%
1999	76.8%	23.2%

*Including Saving Certificates

2.a. Domestic Central Government Debt

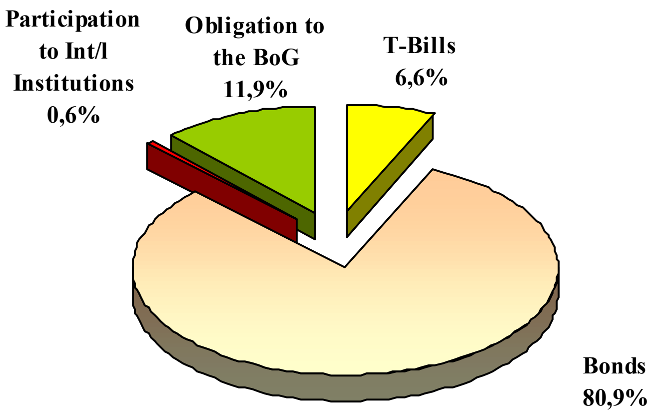
On the 30th April 2000 the domestic debt represented 74.7% of the total debt whilst the foreign debt 25.3%, as illustrated in Chart 6.

Chart 4
Composition of Central Government Debt,
on 30-4-2000



The composition of Domestic Central Government Debt on the 30th April 2000 appears in Chart 5. The tradable part represents 87.5% of the total domestic debt, whereas the remainder concerns long-term obligations to the Central Bank of Greece (old loans from exchange-rate differences) and participation to International Institutions.

Chart 5
Composition of Domestic Central Government Debt on 30-4-2000



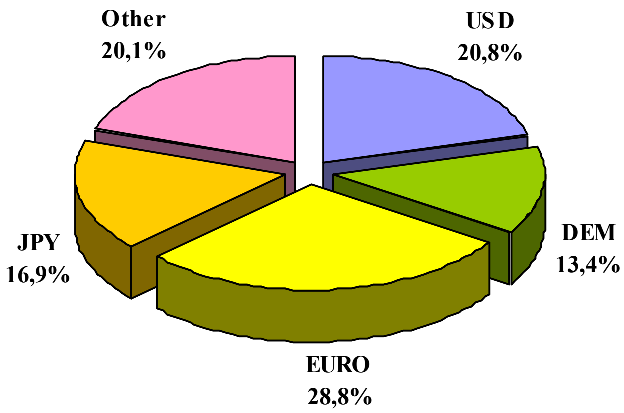
2. b. External Central Government Debt

The weighted average maturity of the external outstanding debt for 1999 was aprox. 7.7 years. This is due to the long maturities of recent external borrowing, which range from 5 to 20 years.

On 30-4-2000 the external debt consisted mainly of US Dollars (20.8%), EURO (28.8%), DEM (13.4%) and JPY (16.9%). The remainder represented other european currencies.

The composition of the external central government debt (before swaps) by currency appears in Chart 6.

Chart 6
Composition of External Government Debt,
on 30-4-2000, by currency.



Due to the imminent participation of Greece in the EMU, serious efforts have been undertaken towards the re-structuring of the composition of the external debt through currency swaps, in favour of european currencies and Euro.

B. RECENT DEVELOPMENTS

The Ministry of Finance, continued its successful strategy implemented in 1999 and in the current year as well, pursuing a more effective management of debt. The policies adopted were especially designed to take into account three new parameters that are expected to strongly affect the domestic primary and secondary bond markets, the repo and futures markets and generally the whole economic scenery of the country:

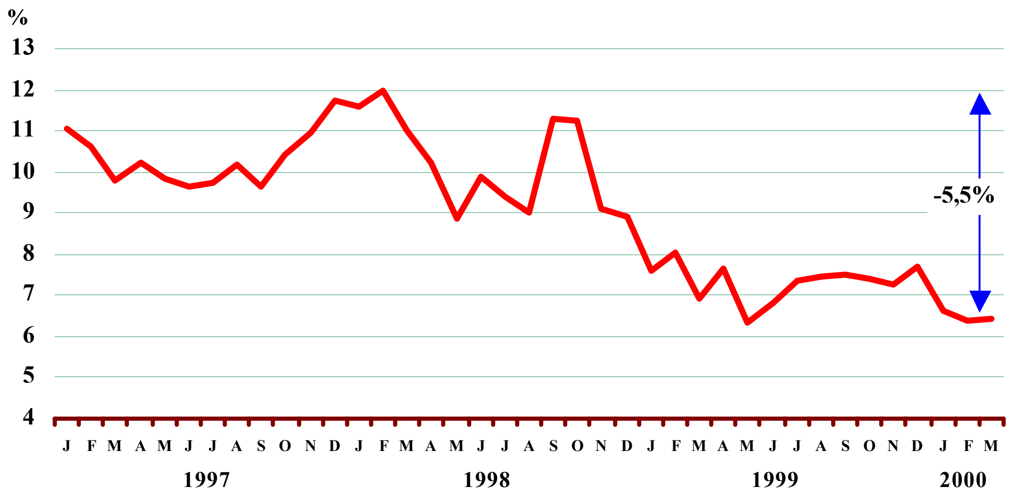
- The creation of the euro bond market, presently considered to be the second largest bond market in the world (after the US bond market).
- The imminent participation of Greece in the Eurozone and the denomination of debt to Euro on 1-1-2001.
- The continued trend towards an increased resort to electronic trading as well as the introduction of internet.

1. Borrowing activity in 2000

1.a. Domestic Borrowing

The first months of 2000 were characterised by a significant fall in the short- and medium-term interest rates, due to the gradual convergence of the greek economy to the european economies, in spite of the sharp increase in the oil prices and the US dollar. This fact gave the Ministry of Finance the chance to borrow at a significantly lower cost. (Chart 7).

Chart 7
Weighted average interest rate of domestic borrowing (Jan. 97-Mar. 00)



During the period Jan. – Apr. 2000, the lengthening of the maturity of the outstanding debt, was even further pursued. As a result, the volume of T-Bills issued in this period, represents only 6.4% of the total new domestic borrowing (Chart 8).

Chart 8
Distribution of Domestic Borrowing
(Jan.-April. 00)

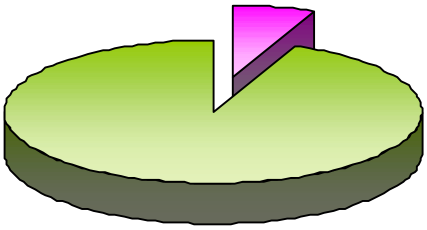


Table 5

Percentage participation of T-Bills in new domestic borrowing of the years 1995 - 2000*

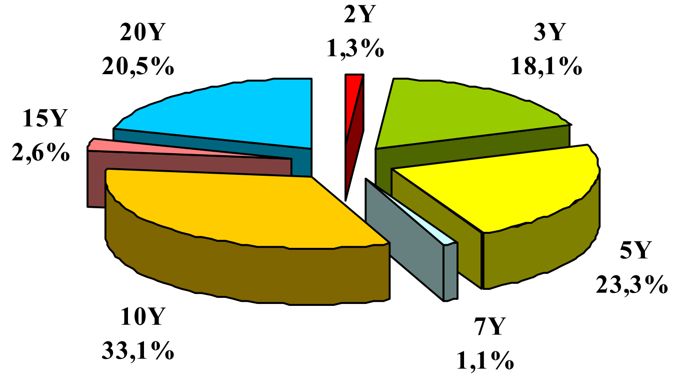
	1995	1996	1997	1998	1999	2000*
Volume of T-Bills as a percentage of new dom. borrowing	60.5%	54.4%	37.8%	52.6%	22.6%	6.4%

*Data until 30/4/2000

As illustrated in Table 5, the percentage of T-Bills issued every year, diminishes constantly, with the exception of the year 1998, when the aftermath of the Asian crisis prevailed and the Russian default broke up.

The main volume of issues in year 2000 consists of fixed interest rate bonds of different maturities, ranging from 2 to 20 years. Apart from the 2-year maturity (Saving Certificates), which is exclusively addressed to retail investors and hence placed by public subscription, all other maturities are placed through auctions. The composition of fixed interest rate bonds issued in 2000 appears in Chart 9.

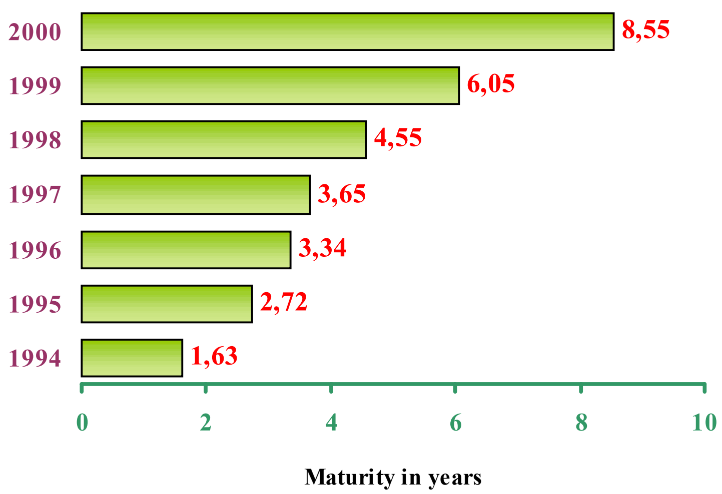
Chart 9
Composition of Fixed Interest Rate Bonds
Issued in 2000*, by maturity



*Data until 30/4/2000

As a consequence, **the weighted average maturity of the new domestic borrowing increased to 8.55 years, significantly higher compared to that of the previous years**, as shown in Chart 10.

Chart 10
Weighted average maturity of the new domestic borrowing
for the years 1994 – 2000*



*Data until 30/4/2000

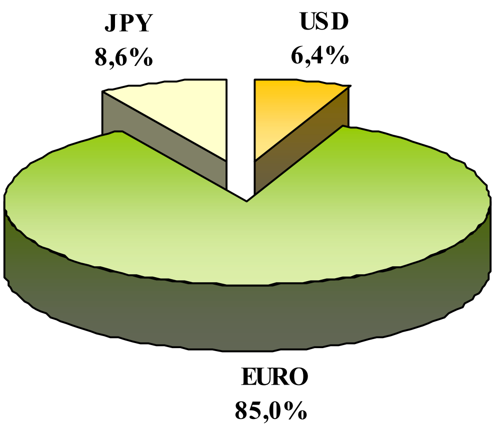
Due to the fact that the weighted average maturity of the external borrowing in the current year is 10.58 years, the weighted average maturity of the **total new borrowing** increased to 9.11 years.

The volume of total gross borrowing in 2000 is estimated to be less than GRD 9,000 billion, significantly lower compared to GRD 10,400 billion in 1999.

1.b. External Borrowing

At the beginning of March, Greece successfully launched a € 2.5 billion, 10-year Eurobond issue, with 6.0% fixed rate coupon. This bond issue, after Greece's participation in the euro zone and the adoption of the single currency, will be consolidated with the 10-year fixed bond issued 19 May 2000 in the domestic market under the same terms. The consolidated bond, a benchmark issue to be, will be traded in the EuroMTS System, thus strengthening the presence of Greece in the european bond market.
In this context, the external borrowing in 2000, was mainly conducted in Euro (Chart 11).

Chart 11
Composition of External Borrowing, by Currency
(Jan.-April 2000)



The need for restructuring the currency composition of the external debt is more than obvious. Firstly, upon joining the EMU, the Euro denominated debt will be automatically considered as domestic debt. Secondly, the part of debt denominated in other-than-Euro currency, must be to a great extent hedged and of course at such a proportion, that any adverse exchange rate fluctuations won't influence the then outstanding external debt in an unfavourable or uncontrolled manner.

Towards this end, in 2000, the Ministry of Finance focused on restructuring the composition of the external debt, through currency and interest rate swap deals.

1.c. Other issues

Buy-back of pre-war issued Loans

By decision of the Minister of Finance, the Greek State bought back the existing pre-war issued Loans denominated in Drachmas (GRD), U.K. Pounds (£) and U.S. Dollars ($). The outstanding balance of the above Loans on 31-12-98 was:

Drachmas (GRD)	212.364.400
U.K. Pounds (£)	5.881.328
U.S. Dollars ($)	24.850.680

The buy-back was decided because of the imminent participation of Greece in the EMU and the high cost of servicing the above Loans. By this settlement, a long and difficult period in the history of Greece´s Public Debt is coming to an end.

Privatisation Certificates (Balladur type bonds)

a) "Prometocha" Certificates

They were issued in 1998 in two tranches, a 5-year fixed interest rate EURO/ECU denominated tranche for the european and international market and a 3-year zero-coupon GRD denominated tranche for the international and domestic market. The holder of the privatisation certificates has the right at any time, from 1st January, 1999 to the redemption date, to exchange them with privatisation shares of Greek State-owned companies that are to be privatised within that period. They offer certain privileges to the holder since he can acquire the privatisation shares at discount and in priority of the non-holder.

The privatisation certificates holders have already been given the chance to exchange their certificates with equities of state-owned companies four times, of which the most recent are:

- In December 1999, on the occasion of the public offering of state-owned shares of the ETBA Bank S.A. by the state-owned company

DEKA S.A., the holders of privatisation certificates were given the right to exchange them with shares, at a 5% discount on the offered price.The privileged participation of the holders of both Drachma and Euro denominated privatisation certificates in the public subscription, was defined at 50% of the total number of 10,528,000 shares of the ETBA Bank S.A., offered by DEKA S.A.

- Also in December, on the occasion of the public offering of state-owned shares of the Watering and Drainage Corporation of Athens S.A. (EYDAP S.A.) by the state-owned company DEKA S.A., the holders of privatisation certificates were given the right to exchange them with shares, at a 5% discount on the offered price.The privileged participation of the holders of both Drachma and Euro denominated privatisation certificates in the public subscription, was also defined at 50% of the total number of 25,000,000 shares of the Watering and Drainage Corporation of Athens S.A. (EYDAP S.A.), offered by DEKA S.A.

b) "Agrometocha" Certificates

In May 2000, the Hellenic Republic issued 3-year, zero coupon, GRD denomintated certificates in book-entry form, exchangeable into Agricultural Bank of Greece shares. These certificates called **"Agrometocha"** have a nominal value of GRD 100 and an initial purchase price under par. The issue size was GRD 230 billion.

At any time from the issue date to the redemption date, the holders of "Agrometocha" certificates shall have the right, to exchange them into state -owned shares of the Agricultural Bank of Greece to be offered through public subscription or private placement.

The "Agrometocha" certificates will be exchanged with shares at a 5% discount on the offered price of the share. Moreover, the non-institutional holders who will proceed with such an exchange, are entitled to 2 free additional shares in every 10, on the condition that they hold the shares for a period of 6 months.

The successful exchange of privatisation certificates with shares, will be continued in the coming months, as Greece´s privatisation program proceeds quickly.

Buy-backs of Government Debt by DEKA S.A.

The state-owned company DEKA S.A. (share holder of state-owned enterprises and organisations), used the revenues raised from privatisations to buy back an equal amount of Greece's outstanding debt. This policy, which led to a total buy-back of government debt of GRD 1,069.7 billion during 1999, will be continued in the year 2000 as well.

2. Further developments in the domestic market

The Ministry of Finance, reassessing the role of primary dealers and other market participants in the light of the creation of the integrated euro bond market and the increased implementation of electronic transaction services, has undertaken a number of measures such as:

- The amendment and further improvement of the Primary Dealers Operation Regulation, as well as the increase of the number of Primary Dealers from 9 to 12. The purpose was to encourage the existence of healthy competition among the participating dealers in terms of lower degree of concentration of the volume of issues purchased by dominant dealers and of the different categories of investors to whom they address.

- The exclusive resort to the Electronic Trading System (HDAT) to conduct auctions and reverse auctions of government securities. This in turn, resulted in a deep and active participation in the primary and secondary bond market, ensuring the transparency of the procedure in quoting prices, as well as the efficiency and speed in concluding the transactions.

- The establishment of a repo market, operating as of 6/9/1999 through the Electronic Secondary Market Trading System (HDAT), and aiming at a more active and flexible secondary market.

- The creation of a Futures Market for the 10-year Fixed Interest Rate bond (benchmark issue) in the Athens Derivative Exchange.

Besides, additional measures have been undertaken, aiming at the restructuring of the institutional investors´ portfolios and of the domestic debt as well, such as:

- The implementation of buy-backs on a regular basis for the retirement of previous issues.

- The valuation of the portfolios of mutual funds in mark-to-market prices, which resulted in a sharp increase of their portfolio yields.

- The substitution of floating rate bond issues with long-term fixed interest rate bonds.

- The substitution of bond issues held by state-owned Funds with stocks of state-owned and other enterprises.

These measures have also had a positive effect on the behaviour of domestic institutional investors, increasing their interest in government bonds.

The most important of the above issues are discussed in detail below:

a. Reverse auctions

Reverse auctions (already initiated in 1998) for pre-announced specific previous floating rate note issues, are conducted on a more systematic basis and held within the Primary Dealership framework. This method turned out to be very successful, as it provides opportunities for a more effective management of excessive liquidity, withdrawal of small illiquid issues and reduction of debt by direct purchase of existing paper.

Moreover, reverse auctions contribute to the proper allocation of borrowing needs in order to avoid "heavy months" or heavy years.

b. Replacement of Floating Rate Notes with Fixed Interest Rate Bonds

The replacement of FRNs can take place through:

i) **auctions of fixed interest rate bonds.** In such a case, the face value of the volume of the specific issue to be substituted, is "exchanged" with an amount of fixed interest rate bonds at the weighted average price of the auction. This method has been used recently for the retirement of previously issued CPI-linked bonds.

ii) **bilateral agreements with institutional investors.** The Ministry of Finance gave insurance companies the opportunity to substitute floating rate bond issues held in their portfolios with long-term fixed interest rate bonds. Respectively, similar agreements were concluded for the substitution of floating rate notes held by state-owned Funds with shares of state owned and other enterprises held in the portfolio of DEKA A.E (state-owned and supervised company, equity holder of state-owned enterprises and organisations).

The purpose of these agreements is to re-structure the portfolios of institutional investors in order to increase their yields and hence to give them motives to become more active in the domestic market.

c. Buy-backs

Buy-backs are organised for the retirement of previous issues, which by today's standards or market conditions are considered by the Ministry of Finance to be expensive or unfavourable to maintain and serve. They mostly concern specific issues (consolidated loans or other specific loans of state-owned organisations) held in portfolios of institutional investors.

d. Establishment of a Repo market

As of 6/9/1999, a repo market is operating, supported by the Electronic Secondary Market Trading System (HDAT). In order to ensure its smooth operation, the 15% taxation applied on repo transactions between Banks and their customers has already been abolished.

The efficiency of the repo market is of premier importance for the well functioning of the secondary market for Government Bonds and Bills. Repo and Reverse Repo, are obviously the main tool, if not the only one, for the following issues: monetary policy operations, financing of long positions (General Collateral) and coverage of short positions (specifics). For these reasons, the repo market is playing an ever increasing role in both the bond market and the money market. In that context, the need for technically updating the settlement system was more than obvious, in order to be able to cope with real time and fully secured repo operations.

Through HDAT, only transactions in the form of a "buy/sell back" repo agreement are conducted. This form of repo agreement consists of two separate transactions, one spot and one forward. While the agreement is in force the coupon is paid to the holder of the underlying security.

The transactions concluded in HDAT can be:

- **Special repo agreements,** in which the underlying security is defined upon conclusion of the transaction.

- **General repo agreements,** in which the underlying security to be transferred is not defined upon conclusion of the transaction, but at the end of the business day.

The following 8 tenors are traded:

Tenor	Buy	Sell back
Overnight	T+0	T+1 (only for special repos)
Tom/next	T+1	T+2
Spot/next	T+2	T+3
Spot one week	T+2	(T+2)+7
Spot two weeks	T+2	(T+2)+14
Spot one month	T+2	(T+2)+30
Two months	T+2	(T+2)+60
Three months	T+2	(T+2)+90

The following tenors can also be traded: a) Intra-day, b) One week, c) Two weeks, d) Spot next future, e) Next future and f) Over delivery. The System, however, can support any other tenor that might be proposed by the market.

The System, finally, provides any kind of information related to the transactions concluded by each participant during the day, which is necessary for their back office. It can also provide information on bids and offers quoted during the day, their status, and the transactions concluded by each member (available only to the counterparties) and general information concerning data on concluded transactions such as the volume, the upper and lower prices, etc.).

3. Primary and Secondary Market – Issuance procedures

3.a. Primary Dealership

In July 1997 the Greek parliament ratified the Law 2515/97, which introduced the institutional framework for the functioning of Primary Dealers and also improved the operation of the Primary and Secondary market. The same law established the Electronic Trading System and the Committee for Supervision and Regulation.

In February 1999 the number of banks acting as Primary Dealers for government debt increased from 9 to 14. However, after a probation period only the 12 best performing banks will bear the status of a Primary Dealer. The Primary Dealers are obliged to bid for the debt and may resell it in the secondary market. The participants must have a minimum of GRD 100 billion in equity capital, and they must always participate in domestic debt sales. Each Primary Dealer must trade at least 5% of the total volume of transactions in the Secondary market per year, with a minimum amount of GRD 300 billion per year. The main benefit from having Primary Dealer status is that Primary Dealers have priority in obtaining securities. Their most important obligations are the following:

- To participate actively in the auctions with competitive bids and absorb any part of the issue left over after all bids have been allocated;

- To continually supply the secondary market during the trading hours by giving bid/offer quotes to buy/sell securities for a nominal value of at least GRD 1 billion and trade at these prices;

- To promote trading of government securities both domestically and internationally;

- To provide detailed assessments of market conditions and thereby indirectly aid the execution of monetary policy.

Since April 1998 the Ministry of Finance within the Primary Dealership framework is using exclusively the **auction technique** for placing T-Bills and Bonds in the Primary market. All the auctions are of the competitive/multiple price type, and the successful bidders acquire the amounts of securities and pay the prices they had bid according to the Primary Dealer Operation Regulation.

Both Primary Dealers and Dealers may also submit a non-competitive bid, where only the desired amount is indicated and they will receive all or part of this amount on a pro rata basis (depending on the total demand), at the weighted average auction price. The total amount offered to all non-competitive bidders cannot exceed 20% of the competitively auctioned amount. The redemption of securities in book entry form takes place automatically on the maturity date.

A serious effort is undertaken to develop benchmark bond issues, through consecutive re-openings of an initial issue, since the liquidity of an issue is of great importance for its trading in the secondary market. An issue can be considered as benchmark when it exceeds GRD 500 billion. Investors are being offered more choice within the market as the breadth and depth of securities being issued continues to be extended.

Since August 1998 the auctions take place every Tuesday and the settlement date in both the primary and secondary market is three days after the trade date (T+3).

The Ministry of Finance announces the auctions to be held on a two-month basis issuance calendar. The auction results are released a few hours after the auction and both the results and the issuance calendar are announced through the Reuters screens and the economic press.

As of January 1999 the auctions are conducted through the Electronic Trading System.

3.b. Secondary Market - Electronic Trading System

The Electronic Secondary Market Trading System commenced in May 1998. The system is based on the Italian "Telematico" system, and the Primary Dealers have screens connected to the main server in the Bank of Greece (BoG). During trading hours (10.15 am to 15.00 p.m. local time), Primary Dealers and Dealers are quoting bids and offer prices and amounts for a number of Greek Government securities. All participants close deals directly through their computer terminals. When a deal is closed, the system automatically matches the orders and sends the relevant confirmation and enters the necessary transaction processes.

The system is designed to improve the transparency of the market as the announcements of binding prices and amounts are accessible to all interested parties (including Primary Dealers, Dealers, Control Committee, BoG and the Ministry of Finance). The statistical information is accessible only by the BoG and the Control Committee. The composition of the Control Committee, which is responsible for the supervision and control of the system for a two-year term, includes officials from the Ministry of Finance, the BoG, the Ministry of National Economy, the primary dealers, the dealers and the Hellenic Bank Association.

4. Taxation

As of 1/1/99 (Law 2682/99), the withholding tax on interest for all bonds issued by the Hellenic Republic is abolished for non-resident investors. The abolition applies also to the coupons of the existing bond issues, which are yet to be paid. This resulted in the taxation alignment of Greece to that of the other member states of the EU, since Greece was the only country imposing a withholding tax on interest for domestic bonds held by non-resident investors.

The aforementioned law, was the last of a series of laws aiming at simplifying the procedures of taxation and at the same time at giving the investors strong motivation to invest in Greek securities by making them more attractive. A brief reference of the recent legislation is made below:

i) Under the Law 2579/98 the withholding tax rate was increased from 7.5% to 10% on T-Bills and bonds issued after the 3rd January 1998. The withholding tax is imposed on interest from Greek Government T-Bills and treasury bonds. For fixed interest rate bonds, coupons are paid net of withholding tax, whilst for T-Bills it is deducted at issue date. For zero-coupon bonds it is deducted at maturity. The withholding tax is not imposed to any original price discount.

ii) Under the Law 2592/98 the withholding tax on interest for all Greek Government securities issued in the european or international market is abolished.

iii) Under the Law 2628/98 the withholding tax on interest for all domestic issues with maturity of two years or longer is also abolished under the condition that the initial investor will hold the security from the date of issue to the date of redemption.

iv) Under the Law 2642/98 the 15% taxation imposed on interest earned on repos for domestic investors is abolished. Prior to the imposition of taxation in April 1994, the repo market was very active and popular with domestic private investors. Repos offered an excellent opportunity for investment since they:

- ✓ had short-term maturities (1 week up to 1 month)
- ✓ provided the possibility of compounding interest; and
- ✓ the minimum investment amount required was only GRD 5 million.

The abolishment of taxation is aiming at reviving the repo market and at using it as an alternative vehicle for investors to fund their positions in the bond market.

Greece has negotiated double tax relief treaties with 22 countries. The agreements vary across the countries, although the underlying objective for all is to avoid overseas investors paying double tax both by Greek and by their own tax authorities concerning dividends, interest and royalties. The tax rate applicable is the lowest of the rates in the specified treaty between the two countries.

5. Redenomination of outstanding debt

5.a. Basic Plans

Greece will redenominate the whole stock of Central Government marketable Debt registered at the Book-entry System. All references (issues) of T-Bills and Government Bonds, will be simultaneously redenominated into euros. This should take place on 1st January 2001.

Towards this end, the Ministry of Finance proceeded with the elaboration of a time-table describing in detail the actions to be taken by involved parties for the redenomination of debt into euro with the «Bottom-up» method. In addition pilot programs have been already accomplished, whilst real-environment applications are scheduled within this year. At the same time, the preparation of both the balance and the budget of central government debt in euro, was successfully accomplished. A brief reference to the «Bottom-up» redenomination method is made below:

5.b Method of redenomination

The redenomination procedure will be based upon individual holding (that is, holding by individual investors) of each reference of Central Government Securities. Though every single security issued by the Central Government will be redenominated at a later stage (once all the individual holdings in the Book-entry system have been redenominated), a procedure based upon redenomination of individual holding of each debt reference turns out to be less distorting than one based upon direct redenomination of every single security.

When redenominating individual holding into euros, roundings will be inevitable. In this case, roundings will apply to individual holding at the level of the **cent of euro** (up or down depending on the case).

5.c. «Bottom up» approach.

The global face value of the stock of Central Government Securities redenominated into euros will be the addition of every single individual holding of all the references already redenominated into euros. Given that roundings will take place **on individual holdings** this approach leads to the fact that the addition of all the individual holdings of Central Government Securities (that is, the new nominal stock of euro-denominated Central Government Debt) does not necessarily have to be the same as the stock which would result from a single redenomination to euros of the total stock of Central Government's securities as a whole.

6. Establishment of a Debt Office

The Debt Office, which was established by Law 2628/98 as a separate public entity under the supervision of the Minister of Finance, is managed by an appointed 5-member Board of Directrors, with the Secretary General of the Ministry of Finance acting as chairman.

The Debt Office started operating in July 1999, and its main task (within the guidelines dictated by the Annual State Budget) is the effective management of debt and consequently the reduction of both the cost borrowing and the cost of servicing of the debt.

In fulfilling its task, the Debt Office reports directly to the Minister of Finance and co-operates closely with the Public Debt Division, the Budget Division and the Deposit Management Division of the Ministry of Finance.

ANNEX

DEBT INSTRUMENTS AND THEIR BASIC CHARACTERISTICS

- ***Zero-coupon Bonds (introduced on 20 January 1997)***

At the end of January 1997 (20/1/1997), the range of debt instrument was broadened with the introduction of two-year Zero-coupon bonds. The new securities were usually issued once a month together with T-Bills.

Zero-coupon Bonds were offered to the investors by public subscription as they were mainly addressing retail investors, as T-Bills. By issuing Zero-coupon Bonds the Ministry of Finance, apart from satisfying the investors' needs better, was aiming at the containing of the volume of T-Bills whose roll-over reached more than 9 trillion GRD at the end of 1996, by substituting them with paper of longer maturity.

Zero-coupon Bonds in fact, allowed investors to re-allocate part of their savings invested in T-Bills with the usual maturities of 3, 6 and 12 months in a paper of longer maturity.

The last zero-coupon issue took place on July 1, 1997.

- ***Fixed rate Bonds (introduced November 1996).***

They were first issued on 26 November 1996 and they are now available in 2, 3, 5, 7, 10 and 15-year maturities.

The Ministry of Finance introduced the five and seven-year fixed rate bonds in March 1997 and in June 1997 introduced the 10-year fixed rate bonds. The three-year fixed-interest rate bonds were introduced earlier on November 22, 1996. The two and fifteen-year fixed rate bonds were issued in February and May 1998, respectively. Their issuance is in line with the efforts of the Ministry to extend the average duration of the Central Government Debt.

Moreover, they offer benchmark securities adequate for meaningful comparative analysis with other European markets. Commercial Banks and Institutional investors are the major buyers of these government securities.

Fixed rate bonds bear annual coupons and are redeemed at par at maturity.

- ***Consumer Price Index-linked Bonds (introduced on 19 May 1997).***

In May 1997, after extensive consultation with potential investors and other interested parties, the Ministry of Finance issued a new type of marketable book-entry security with a nominal return linked to the inflation rate. This is the Consumer Price Index-linked bonds (CPI-linked Bonds) or in other words the State Bonds Index Linked (SBIL)

The inflation-protection securities structure is based, more or less, on the U.S. Treasury and Swedish model. They offer a degree of inflation protection that is not currently available with other Greek government Bonds and are bought by investors who seek a hedge against an anticipated rise in inflation.

The value of the principal will be adjusted for changes in the level of inflation and every twelve months the security will pay interest, which will be an amount equal to a fixed percentage (4% for the four existing issues), of the inflation-adjusted value of the principal. So every year interest payments are determined by multiplying the inflation adjusted principal by 4% real rate of interest. The inflation adjusted principal amount of the securities can be calculated daily. However, the inflation adjustment (the capital uplift) will not be payable until maturity. The final payment will not be less than the original par amount of the security at issuance.

The index for measuring the inflation rate is the National Consumer Price Index (CPI). CPI was selected by the Ministry of Finance because it is the best known and most widely accepted measure of inflation.

Only the annual interest payment (based on the real interest rate percentage) on Index linked bonds is taxable to the holder of securities when received. The up lift of the principal, which is adjusted for inflation from the date of issuance to the maturity date, although considered as interest, is tax-exempt.

The first issuance of CPI-linked bonds was on May 19, 1997 with maturities of five and ten years and they were placed in the primary market by subscription.

Due to the rapid de-escalation of inflation in Greece the CPI-linked bonds are no longer issued.

- ***Treasury Bills***

Treasury Bills are short-term securities with maturities of 3, 6 and 12 months. T-Bills are issued at a discount from face value (par amounts) and redeemed at their face value at maturity. They are issued in a minimum purchase amount of 100,000 GRD face value, and multiple amounts.

Retail investors are the main buyers of T-bills. Approximately 90% of each issue is offered to small investors. State pension funds also invest a significant volume of their assets in T-bills.

Unlike in the previous years, when T-Bills were placed by public subscription and their interest rate was defined administratively, presently (as from October 1997), T-bills are issued only through multiple price auctions.

- ***Floating Rate Government Bonds in GRD (FR-Bonds)***

Floating Rate bonds, being medium and long term bonds with maturities of 3, 5 and 7 years, were issued by a multiple price auction.

Institutional investors are the main buyers of the FR-bonds. Their annual coupon is calculated by adding a fixed spread for the life of the bond, on the 12-month T-bill rate of interest, prevailing three days prior to the reset date of the coupon. Spreads of new bond issues are reviewed regularly by the Ministry of Finance. From June 6, 1997 they were reduced to: 0.20%, 0.40% and 0.80%, for bonds with maturities 3, 5 and 7 years respectively.

Institutional investors typically prefer FR-bonds stripped of their first (or all) coupons. A lively stripped FR-bonds market and stripped coupon market accommodates them. A Reuters multi-contributors page of FR-bonds quotes serves as reasonable revaluation tool for banks and other portfolios.

During this period, multiple bid auctions of floating rate government bonds with maturity of 3, 5, and 7 years were held successfully. The last auction of floating rate bonds was held on October 21, 1997.

- ***2-year Saving Certificates***

Saving Certificates are relatively new instruments since they were issued for the first time in September 1998 and are addressed almost exclusively to retail investors. Their basic characteristics are the following:

i) They are tax-free if kept by the holder till their maturity
ii) They can be instantly liquidated at any time. If liquidated within 60 days from the date of issuance, no interest is paid for this period
iii) They have a small nominal value, thus making them accessible to the retail investor
iv) no investor can be underwritten for more than 15 million GRD per issue.

Saving certificates were well accepted by retail investors, which is reflected by the fact that their volume, issued within a period of almost one year, amounts already to more than GRD 1 trillion.