



STATE OF ISRAEL
MINISTRY OF FINANCE
ACCOUNTANT GENERAL

GOVERNMENT DEBT MANAGEMENT UNIT
ANNUAL REPORT 2004





Table of contents

Introduction	7
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Section A – Debt Management Unit, Debt Management Policy Goals, and Tools for Implementation 11

1. Debt Management Unit - Structure and Functions.....	11
A. Domestic Debt Management Department	11
B. External Debt Management and Foreign Currency Transactions Department.....	12
C. Risk Management Department	12
2. Government Debt Management Policy	13
D. Main Goals	13
E. Other Considerations and Instruments	13
3. Funding in the Domestic Market	15
F. Tradable Funding	15
G. Non-Tradable Funding	15
4. Funding Abroad.....	16
H. Main Sources of Funding Abroad	16
5. Risk Management	20
6. Research	23

Section B - Developments in the Domestic Government Bonds Market and in Global Bonds Markets in 2004 25

1. Macro-Economic Developments and Developments in the Domestic Capital Market in 2004.....	25
2. Main Developments in the Domestic Government Bonds Market.....	27
A. Unlinked Instruments.....	28
B. CPI-Linked Fixed-Coupon Instruments.....	32
3. Developments in the Global Bonds Market	33



Table of contents

Section C - Debt Management and Deficit Financing 37

1. Government Debt in 2004	37
A. Government Debt and Debt to GDP Ratio	37
B. Domestic Debt	39
C. External Debt	47
2. The Government Deficit and Financing Needs in 2004	50
3. Government Funding	52
D. Domestic Funding	52
E. External Funding	55

Section D - Reform in the Government Bonds Market ... 63

1. The Primary Market	63
2. The Secondary Market	67
3. Benefits of the Reform	71
4. Changes in State Loans Regulations	72
5. Transfer of the Domestic Debt Administration from the Bank of Israel to the Ministry of Finance	75
6. Initial Results and Achievements of the Reform	75

Section E - The State of Israel's Credit Rating 79

Section F - The Corporate Bonds Market 85

Appendices 89

Appendix A - Forecast of Bond Maturities	89
Appendix B - Distribution of Tradable Funding by Linkage Type in 2004	91
Appendix C - Characteristics of Tradable Bonds in the Domestic Market	92
Appendix D - Characteristics of Bonds Issued by the Bonds Organization	93
Appendix E - Tax Rates Applicable to Government Bonds Issued After May 2000 ..	94
Appendix F - Personnel of the Government Debt Management Unit	95

Table of contents

List of Diagrams

Diagram B-1:	Developments in interest rates, exchange rates, and inflation expectations in 2004	26
Diagram B-2:	Developments in government bond yields in 2004	27
Diagram B-3:	Turnovers of government bonds on the Tel Aviv Stock Exchange, by linkage type	28
Diagram B-4:	Yields of unlinked fixed-coupon bonds for different terms to maturity in 2004	29
Diagram B-5:	Yield curves of unlinked fixed-coupon bonds in 2003-2004	30
Diagram B-6:	Yields of several FRNs, and the spread between the bonds and the yield of the underlying assets, in 2004	31
Diagram B-7:	CPI-linked bond yields at different terms to maturity in 2004	32
Diagram B-8:	Yield curves of CPI-linked bonds in 2003-2004	33
Diagram B-9:	Developments in yields of U.S. government 5- and 10-year bonds in 2003-2004	34
Diagram B-10:	Developments in the three and six month LIBOR interest rate in 2003- 2004	35
Diagram B-11:	Developments in dollar exchange rates against the Japanese Yen, the Euro, and the GBP in 2003-2004	35
Diagram C-1:	Structure of government debt at the end of 2004	37
Diagram C-2:	Government debt to GDP ratio, 1987-2004	38
Diagram C-3:	Tradable domestic redemptions by linkage type, 2005-2024	41
Diagram C-4:	Tradable government bond holdings by pension funds	43
Diagram C-5:	Number of tradable government bond series, 1992-2005	44
Diagram C-6:	Average size of series, 1995-2005	45
Diagram C-7:	Composition of external debt by source of debt	49
Diagram C-8:	Composition of external debt by original duration of debt	49
Diagram C-9:	Composition of external debt by currencies	50
Diagram C-10:	Distribution of funding in different channels in 2004	52
Diagram C-11:	Distribution of tradable domestic funding in different channels, 1993-2004	53
Diagram C-12:	Composition of nontradable funding in 1995-2004	54
Diagram C-13:	Israel Bonds Organization sales and redemption volumes, 1990-2004	57
Diagram C-14:	Distribution of Israel Bonds Organization sales by securities in 2004 ..	58
Diagram C-15:	Distribution of Israel Bonds Organization sales by term to maturity in 2004	59
Diagram C-16:	Developments in the spread of 5- and 10-year Jubilee bonds, compared to spreads of unguaranteed issues on the secondary market	60
Diagram C-17:	Geographical distribution of Israel Bonds Organization sales in 2004 ..	61
Diagram C-18:	Principal redemptions and interest payments on Israel Bonds Organization securities	61
Diagram C-19:	Developments in yield to investors in selected Israel Bonds Organization securities	62

Table of contents

Diagram D-1:	Purchases by types of investors in auctions of Shahar type bonds in 2004	64
Diagram D-2:	Current structure of the government bonds market	67
Diagram D-3:	Structure of the government bonds market after the reform	68
Diagram F-1:	Funding by the private sector through bond issues to the public, 1998- 2004	85
Diagram AP-1:	Maturities of principal and interest payments on tradable domestic debt, 2005-2024	89
Diagram AP-2:	Maturities of principal and interest payments on nontradable bonds in the domestic market, 2005-2024	89
Diagram AP-3:	Maturities of principal and interest payments on external debt, 2004- 2034	90

List of Tables

Table C-1:	Broad government deficit and debt as a percentage of GDP in various countries in 2004	39
Table C-2:	Distribution of domestic debt - tradable and nontradable debt, 1999- 2004	39
Table C-3:	Distribution of tradable debt by linkage type, 1995-2004	40
Table C-4:	Distribution of tradable government bond holders, 1995-2004	42
Table C-5:	Distribution of nontradable debt by type, 1999-2004	46
Table C-6:	Average term to maturity of government debt, 1999-2004	46
Table C-7:	Unguaranteed issues in global financial markets, 1995-2004	47
Table C-8:	Issues backed by United States government guarantees, 2003-2004...	48
Table C-9:	Financing of the government deficit in 2004	51
Table C-10:	Principal funding and redemptions of nontradable debt in 2004	53
Table C-11:	Principal funding and redemptions of nontradable debt in 2004	54
Table E-1:	Israel's Credit Rating According to the three rating agencies	83
Table F-1:	Capital raised by the private sector through bond issues, by security type and linkage type	86
Table F-2:	Funding by the private sector through bond issues by linkage type...	87

List of Boxes

Box D-1:	Primary Dealers	65
Box D-2:	Roles of the TASE in the bonds market after the reform	70
Box D-3:	Future contracts on nominal bonds - monetary or physical settlement	76



Introduction

We are pleased to present the third annual report of the Government Debt Management Unit in the Accountant General Division.

Positive economic trends continued in 2004. Prices increased (yields decreased) on the TASE, particularly in the last quarter of the year, during which events in the political sphere had a favorable effect on the capital market. However, overall price increases for the year were significantly lower than those recorded in 2003.

The negative trend in the debt to GDP ratio was checked, and even reversed, in 2004: following three years of sharp increases, the ratio of government debt to GDP fell from 104 percent to approximately 102 percent.¹

The trend reversal was made possible by the increase in the government's income and the decrease in its expenses (a smaller numerator), as well as the renewed growth in the economy and the increase in GDP (a larger denominator).

Based on these favorable data, international rating agencies released positive reports on the Israeli economy and on the government's economic policy. These reports were accompanied by an upgrade in the credit rating outlook for external debt by S&P, as well as an upgrade in the credit rating outlook for domestic debt by Fitch.

The last significant series of Gilboa type dollar-linked bonds matured in 2004. Despite the concerns expressed by some investors and forecasters, the redemptions passed without impacting the foreign currency market; the private sector demonstrated its ability to produce numerous, varied, and innovative substitutes, such as structured products and exchange-traded funds, that address investors' demand for foreign currency-linked shekel assets.

The decrease in the number of tradable bond series continued in 2004. This trend will accelerate in 2005, with only 54 series to remain in circulation by year end – some 1/5 of the number in the early 1990s. At the same time, the trend of larger issued series continued: for the first time, a single series (Shahar 2671) reached a volume of over NIS 20 billion. As a result of both trends, daily turnovers of government bonds continued to grow, reaching over one billion NIS daily – a 1,000 percent increase as compared to turnovers ten years ago. Though government bonds are already the most tradable financial instrument, we expect the trend to continue and accelerate subsequent to the implementation of the reform described in Section D.

The amendment to the State Loans Law (Amendment No. 14) that provides the legal basis for the reform in the government bonds market was completed in 2004. The key points of the reform are the appointment of Primary Dealers, from Israel and from abroad; an upgrade of the government bonds market infrastructure, including the adoption and integration of leading international systems; and the transfer of all aspects of government debt management from the Bank of Israel to the Accountant General Division at the

¹ Data in the report is current as of March 31, 2005.



Introduction

Ministry of Finance. The amendment was unanimously approved by the government in July, unanimously approved by the Finance Committee in December, and unanimously approved by the Knesset plenum in early January 2005. The necessary preparations will be carried out during 2005, so that this extensive reform, including all aspects, can materialize in 2006. The reform is planned to complement and integrate with the capital market reform recommended by the interministerial Bachar committee.

Related to the reform, in July, a full exemption from taxes was approved for foreign investors in government bonds, on both capital gains and income from interest. Additionally, the formulation of regulations was completed for three new bonds to replace the existing bond types Shahr, New Gilon, and Galil. The regulations will be submitted for approval by the Knesset Finance Committee during 2005.

In addition, a new financial transactions law was advanced this year, which establishes the legal foundations for repo transactions and a variety of other inter-bank transactions. The law is to be discussed by the Knesset in late 2005.

2004 was the first full year in which both major reforms that took effect in 2003 were implemented – the reform in pension funds and the tax reform. In accordance with the pension reform, no Miron or Arad type nontradable bonds were issued in 2004, and all pension moneys were directed towards the capital market, particularly the bonds market. This is a highly significant development for the capital market, as it introduces new entities into the market that manage large sums of money and have a long-term investment horizon. Moreover, the concerns that surrounded the legislation and implementation of the tax reform were not borne out; on the contrary, both prices and turnovers rose in all tradable instruments.

The reduction in the volume of tradable funding in 2004, due to the decrease in the deficit, U.S. loan guarantees, changes in the current management of the state treasury, and the low redemption rate relative to 2003, reduced the incidence of the private sector being “crowded out” by the government, a phenomenon which was evident to the extreme in 2001-2003. Private companies took impressive advantage of the government’s partial exit from the credit market, and increased capital raising: in 2004, corporate bond issues to the public increased by 75 percent as compared with 2003. The offerings by these entities met with brisk demand from institutional investors, due to both the reduced supply of government bonds and the extensive easing of their investment regulations in recent years. This trend continued strongly in 2005.

A total amount of \$3.6 billion was raised abroad by the government in 2004: in a global public issue (\$500 million), in bonds backed by U.S. government guarantees (\$1.75 billion), and through the Israel Bonds organization (\$1.35 billion).

The stability of the Tel Aviv Clearing House (a subsidiary of the Tel Aviv stock exchange), including the government bonds clearing house, was improved in 2004, due to the unequivocal demand by the Ministry of Finance to reduce risk exposures and increase the financial stability of the various systems within the capital market, among other



Introduction

causes. This trend will be reinforced when the Bank of Israel completes the RTGS (real time gross settlement system) project, in approximately two years.

The Debt Management Unit provided assistance in other areas during 2004, such as an examination of the risks of different State guarantees, the publication of future debt payment forecasts, and more. In addition, the Debt Management Unit assisted in research conducted by the Accountant General Division on the subject of non-Keynesian effects of fiscal policy on real interest rates in the markets.

Section A will describe the major guidelines of the government's debt management policy – the main goals and considerations in the management of government debt, the risk management system, other policy tools, and the government's means of funding in the domestic market and abroad.

Section B will describe the macro-economic developments in 2004, and the main trends in the government bonds market, in Israel and abroad.

Section C will detail the main developments in overall government debt, domestic debt (tradable and non-tradable), and external debt. In addition, this section will describe the government deficit and the ways of financing it: funding needs, tradable and nontradable funding in the domestic market, funding by the government in international capital markets, and funding through the Israel Bonds organization.

Section D will describe the highlights of the reform in the government bonds market approved by the Knesset in January 2005, which is centered on the introduction of Primary Dealers.

Section E will survey developments in Israel's credit rating.

Section F will examine the sharp increase in capital raising by private companies through bond issues, following the reduction in government funding in the domestic market, as a result of the lower deficit, funding abroad, and prudent management of government finances.

Yuval Bronstein

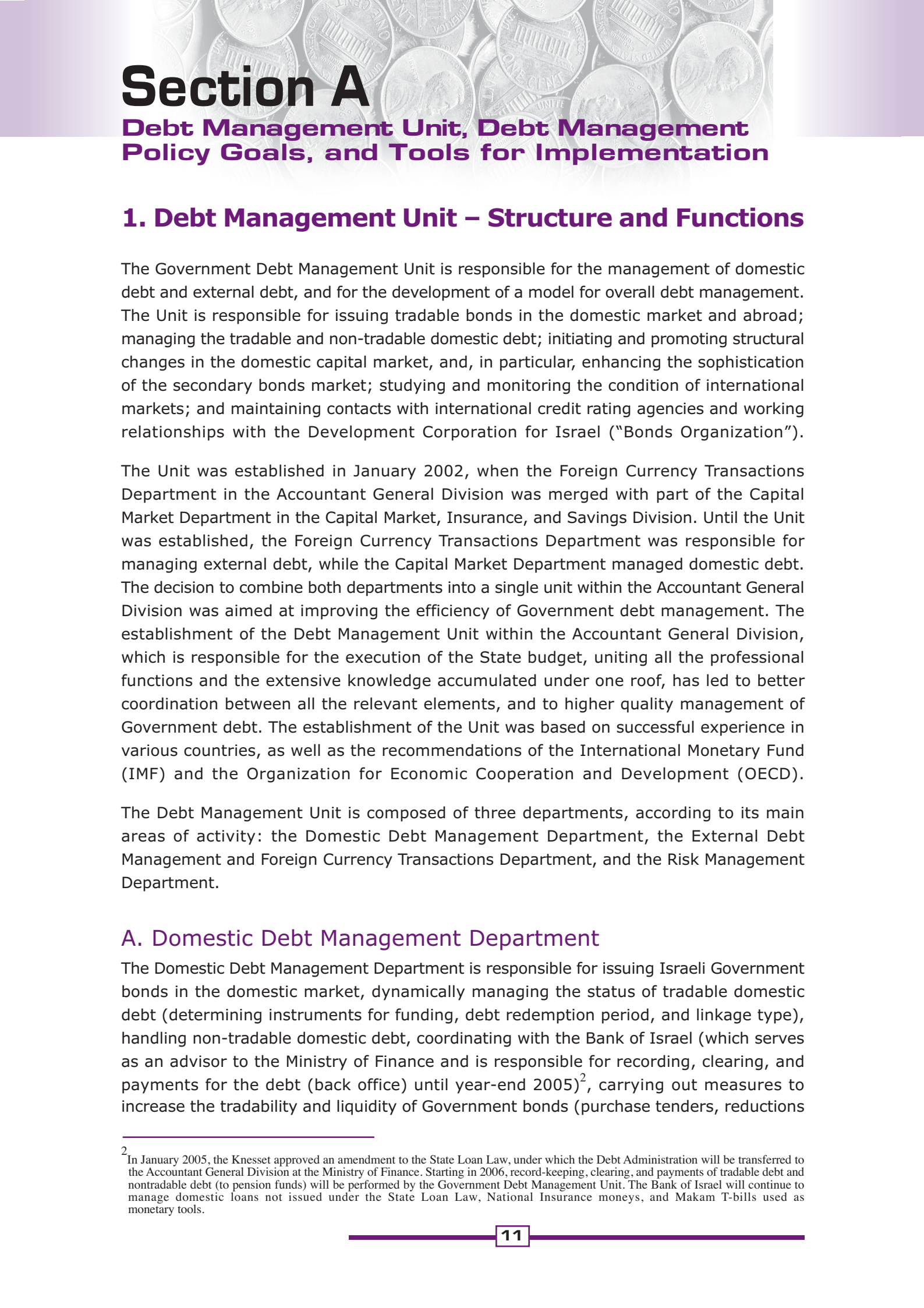


Senior Deputy Accountant General

Adi Rivlin



Head of Government Debt Management



Section A

Debt Management Unit, Debt Management Policy Goals, and Tools for Implementation

1. Debt Management Unit – Structure and Functions

The Government Debt Management Unit is responsible for the management of domestic debt and external debt, and for the development of a model for overall debt management. The Unit is responsible for issuing tradable bonds in the domestic market and abroad; managing the tradable and non-tradable domestic debt; initiating and promoting structural changes in the domestic capital market, and, in particular, enhancing the sophistication of the secondary bonds market; studying and monitoring the condition of international markets; and maintaining contacts with international credit rating agencies and working relationships with the Development Corporation for Israel ("Bonds Organization").

The Unit was established in January 2002, when the Foreign Currency Transactions Department in the Accountant General Division was merged with part of the Capital Market Department in the Capital Market, Insurance, and Savings Division. Until the Unit was established, the Foreign Currency Transactions Department was responsible for managing external debt, while the Capital Market Department managed domestic debt. The decision to combine both departments into a single unit within the Accountant General Division was aimed at improving the efficiency of Government debt management. The establishment of the Debt Management Unit within the Accountant General Division, which is responsible for the execution of the State budget, uniting all the professional functions and the extensive knowledge accumulated under one roof, has led to better coordination between all the relevant elements, and to higher quality management of Government debt. The establishment of the Unit was based on successful experience in various countries, as well as the recommendations of the International Monetary Fund (IMF) and the Organization for Economic Cooperation and Development (OECD).

The Debt Management Unit is composed of three departments, according to its main areas of activity: the Domestic Debt Management Department, the External Debt Management and Foreign Currency Transactions Department, and the Risk Management Department.

A. Domestic Debt Management Department

The Domestic Debt Management Department is responsible for issuing Israeli Government bonds in the domestic market, dynamically managing the status of tradable domestic debt (determining instruments for funding, debt redemption period, and linkage type), handling non-tradable domestic debt, coordinating with the Bank of Israel (which serves as an advisor to the Ministry of Finance and is responsible for recording, clearing, and payments for the debt (back office) until year-end 2005)², carrying out measures to increase the tradability and liquidity of Government bonds (purchase tenders, reductions

² In January 2005, the Knesset approved an amendment to the State Loan Law, under which the Debt Administration will be transferred to the Accountant General Division at the Ministry of Finance. Starting in 2006, record-keeping, clearing, and payments of tradable debt and nontradable debt (to pension funds) will be performed by the Government Debt Management Unit. The Bank of Israel will continue to manage domestic loans not issued under the State Loan Law, National Insurance moneys, and Makam T-bills used as monetary tools.



Debt Management Unit, Debt Management Policy Goals, and Tools for Implementation

in the number of series, and increases in their volume), and enhancing the sophistication of the domestic bonds market, including the initiation of structural changes in the capital market (such as the introduction of Primary Dealers into the Israeli Government bonds market).

B. External Debt Management and Foreign Currency Transactions Department

The External Debt Management and Foreign Currency Transactions Department is responsible for performing issues abroad (selecting target markets, timing of issues, and volumes; locating underwriters; and preparing legal and marketing materials), maintaining relationships with international credit rating companies, monitoring international markets and studying new markets, handling civilian aid from the United States, and additional matters related to the Government's foreign currency transactions. In addition, the Department serves as a liaison for the Ministry of Finance Representative Office in New York.

C. Risk Management Department

The Risk Management Department is responsible for assessing the risks related to debt management, identifying courses of action to reduce the costs of debt, and pricing specific Ministry of Finance transactions. Over the last year, its activity was expanded to encompass the management of risks related to major infrastructure projects carried out in collaboration with the private sector (BOT, PPP).

2. Government Debt Management Policy

D. Main Goals

1. Minimizing the cost of funding

The most important goal of Government debt management is to provide the Government with stable financing at minimal cost, while taking risks into account. In order to minimize the cost of funding, the preferred funding mix is determined by comparing the costs of raising capital in the different channels.

2. Increasing the tradability and liquidity of domestic debt

A bond holder's ability to sell the bonds easily, at a price close to the market price, at any given moment, depends on the volume of trade that generally characterizes the bond. Increasing the tradability and liquidity of bonds thus raises demand for them and reduces the Government's funding costs. Therefore, in recent years, the Ministry of Finance has reduced the number of series traded and expanded their volume (see details in Section III). In addition, the Government Debt Management Unit has begun a process aimed at introducing primary dealers into the Government bonds market



Section A

Debt Management Unit, Debt Management Policy Goals, and Tools for Implementation

(see details in Section IV), whose entry is expected to greatly increase the liquidity and tradability of Government bonds.

3. Creating points of reference in domestic and foreign markets

Government bonds issued on the domestic market serve as points of reference for different investors, facilitate the pricing of corporate bonds thus, and encouraging the development of the corporate bonds market. For this purpose, the introduction of Primary Dealers, and their commitment to quotes on the secondary market at a minimal amount of NIS 5 million, will provide indicative prices for the entire Government bonds market, and facilitate the pricing of corporate bonds.

The Ministry of Finance is also acting to create a non-linked (nominal) yields curve based on highly tradable bonds at various terms to maturity, a common practice in developed markets. The improvement in the structure of the curve is attained via issues of bonds at fixed terms to maturity (benchmarks), and issues of bonds at terms to maturity in which there are no non-linked tradable bonds.

The Ministry of Finance is acting to create points of reference in international markets through the issuance of Government bonds. The existence of tradable Israeli Government bonds in international markets assists in pricing additional Government issues, as well as issues by Israeli companies (issuers from the private sector). In this context, it should be emphasized that despite the inexpensive funding available to the State of Israel in the form of U.S. Government loan guarantees, the Debt Management Unit intends to continue to issue tradable bonds which are not backed by U.S. Government guarantees (hereafter: "unbacked bonds") on international markets.

E. Other Considerations and Instruments

1. Optimization of the debt structure

- **Establishing the domestic debt mix and the funding mix derived from it** – Before 1995, domestic debt was almost entirely linked to the Consumer Price Index or to the dollar. However, in recent years, the Ministry of Finance has made efforts to raise the rate of non-linked debt out of the overall tradable domestic debt, in order to attain a more balanced mix of Government debt. This has been achieved through increased funding in non-linked channels, subject to funding costs. At the end of 2003, the supply of non-linked tradable debt exceeded the supply of (dollar and CPI) linked tradable debt for the first time, and at the end of 2004, unlinked tradable debt stood at approximately 55 percent of the tradable debt. However, it still constitutes just 14.8 percent (approximately 1/7) of total government debt.
- **Establishing the desired external funding mix** – currently, most of the external debt is denominated in U.S. dollars. The Ministry of Finance is acting to diversify the currency mix of the debt through issues in other currencies (such as the Euro, Japanese Yen, Canadian Dollar, and Pound Sterling), and to change the interest mix (fixed/floating) through floating-interest issues based on the LIBOR interest rate, both through the Israel Bonds Organization and through other funding tools (bank syndications, private placements, and swap transactions on bond issues).



Section A

Debt Management Unit, Debt Management Policy Goals, and Tools for Implementation

3. Funding in the Domestic Market

The main source of funding for the Israeli Government is the domestic capital market. Capital is raised through issues of tradable and non-tradable bonds denominated in shekels, for private and institutional investors.

F. Tradable Funding

Tradable funding is carried out through issues of bonds listed for trade on the Tel Aviv Stock Exchange (TASE). The Government currently issues non-linked bonds at a fixed interest rate ('Shahar') and at a floating interest rate ('Gilon'), and CPI-linked bonds at a fixed interest rate ('Galil'). In the past, the Government issued other linked bonds, such as floating-interest, CPI-linked bonds ('Kfir') and floating-interest, dollar-linked bonds ('Gilboa'). However, since February 2000, the Government is no longer issuing these bonds. Redemption of the last large series of 'Gilboa' bonds took place in July 2004, and, with the exception of a negligible series with a volume of NIS 300 million, no 'Gilboa' bond series remain in circulation.

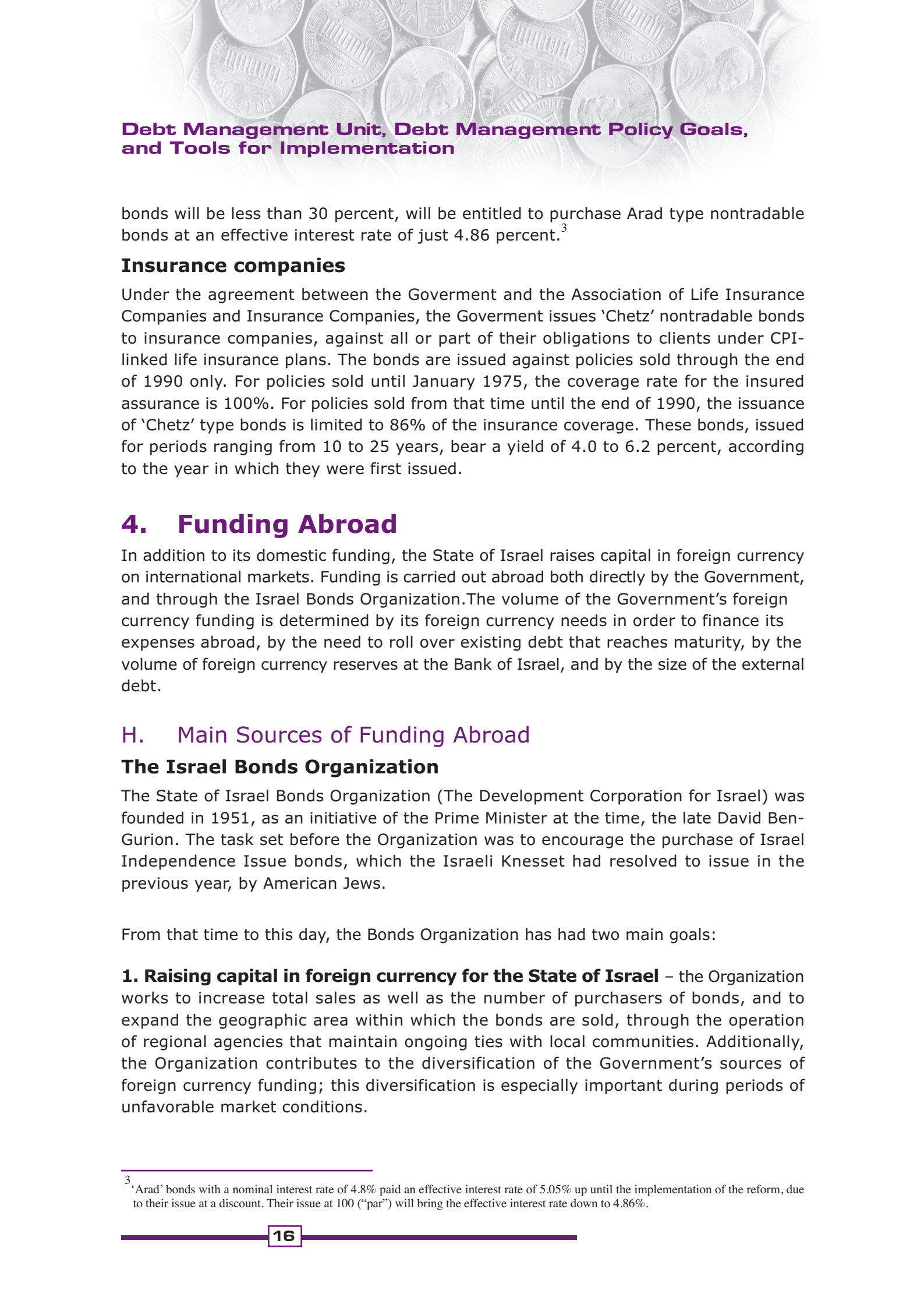
Despite the development of the corporate bonds market in recent years (see details in Section F), Government bonds still comprise the main part of the tradable bonds market. Thus, the Government's funding policy impacts not only the cost of financing its deficit, but also the strength and behavior of the entire Israeli bonds market.

G. Non-Tradable Funding

Another source of financing for the Government is the issuance of non-tradable bonds at a guaranteed real interest rate ('designated' bonds) for pension funds and insurance companies. The remainder of non-tradable funding is comprised of deposits by various entities at the Ministry of Finance (called 'emissions'), based on agreements signed long ago.

Pension Funds

Under the investment regulations that were in effect until August 2003, new pension funds were required to invest some 30% of their net accrued funds in free investments on the capital market, while the balance was invested in 'Arad' nontradable bonds, which generated an effective annual yield of 5.05%. 'Old' pension funds were required to invest at least 93% of their members' money in 'Miron' nontradable bonds, which generated an effective annual yield of 5.57%. The 'old' pension funds, unlike the new funds, were permitted to enlarge their investments in Government bonds, up to 100% of their assets. Thus, during periods of low market yields, the rate of nontradable bonds in the 'old' pension funds' portfolios were expected to rise, and vice versa. Following the reform in pension funds, the rate of the nontradable bonds component out of the overall assets of pension funds will be lowered to only 30%. Therefore, issues of nontradable bonds to pension funds in significant quantities are not expected in the coming years. Both the 'old' funds and the new funds, in which the weight of nontradable



Debt Management Unit, Debt Management Policy Goals, and Tools for Implementation

bonds will be less than 30 percent, will be entitled to purchase Arad type nontradable bonds at an effective interest rate of just 4.86 percent.³

Insurance companies

Under the agreement between the Government and the Association of Life Insurance Companies and Insurance Companies, the Government issues 'Chetz' nontradable bonds to insurance companies, against all or part of their obligations to clients under CPI-linked life insurance plans. The bonds are issued against policies sold through the end of 1990 only. For policies sold until January 1975, the coverage rate for the insured assurance is 100%. For policies sold from that time until the end of 1990, the issuance of 'Chetz' type bonds is limited to 86% of the insurance coverage. These bonds, issued for periods ranging from 10 to 25 years, bear a yield of 4.0 to 6.2 percent, according to the year in which they were first issued.

4. Funding Abroad

In addition to its domestic funding, the State of Israel raises capital in foreign currency on international markets. Funding is carried out abroad both directly by the Government, and through the Israel Bonds Organization. The volume of the Government's foreign currency funding is determined by its foreign currency needs in order to finance its expenses abroad, by the need to roll over existing debt that reaches maturity, by the volume of foreign currency reserves at the Bank of Israel, and by the size of the external debt.

H. Main Sources of Funding Abroad

The Israel Bonds Organization

The State of Israel Bonds Organization (The Development Corporation for Israel) was founded in 1951, as an initiative of the Prime Minister at the time, the late David Ben-Gurion. The task set before the Organization was to encourage the purchase of Israel Independence Issue bonds, which the Israeli Knesset had resolved to issue in the previous year, by American Jews.

From that time to this day, the Bonds Organization has had two main goals:

1. Raising capital in foreign currency for the State of Israel – the Organization works to increase total sales as well as the number of purchasers of bonds, and to expand the geographic area within which the bonds are sold, through the operation of regional agencies that maintain ongoing ties with local communities. Additionally, the Organization contributes to the diversification of the Government's sources of foreign currency funding; this diversification is especially important during periods of unfavorable market conditions.

³ 'Arad' bonds with a nominal interest rate of 4.8% paid an effective interest rate of 5.05% up until the implementation of the reform, due to their issue at a discount. Their issue at 100 ("par") will bring the effective interest rate down to 4.86%.



Section A

Debt Management Unit, Debt Management Policy Goals, and Tools for Implementation

It should be emphasized that the primary goal of the Organization is to sell bonds to communities and individuals (mainly Jews) throughout the world. It therefore does not compete with the Israeli Government's funding on the international market, which is aimed primarily at foreign institutional investors.

2. Reinforcing relations with the Jewish Diaspora – strengthening ties between Jewish communities abroad and the State of Israel.

Some one million bond holders are currently registered in the Organization's books, owning amounts ranging from 100 to tens of millions of dollars. Today, purchasers of the bonds include Jews and non-Jews, sovereigns, provident funds, pension funds, labor unions, municipalities, and others. The State of Israel pays the interest as well as the principal. Since the organization was founded, over \$18 billion have been repaid to lenders, and no delays or arrears have ever been recorded in payments of either principal or interest. Beyond the sale of bonds, the Organization has a national significance that cannot be quantified in financial terms. An example is the Bonds Organization's involvement in bringing delegations of hundreds of investors from foreign countries to Israel each year. Additionally, the Bonds Organization is involved in encouraging tourism, direct investments in Israel, and immigration of Jews to Israel.

Each year, the Accountant General Division at the Ministry of Finance determines the annual funding goal for the Bonds Organization, according to foreign currency needs and other strategic goals in the Government's external debt management. Periodically, the Debt Management Unit determines the interest rate paid for the various securities. The interest rate is determined based on the required spread over the yields of U.S. Government bonds for the appropriate period, which enables to attain the annual funding target at the lowest costs.

The Bonds Organization offers several different types of non-tradable bonds, which differ by a few main parameters: the type of interest (fixed/floating), the way in which the interest is calculated, the repayment period, the conditions for early redemption, the minimal purchase volume, and the restrictions that apply to the target audience (see details in Appendix D). An additional distinction, which is essentially technical, is that the funding tools for which the fiscal agent is the Bank of New York are called "bonds", while funding tools for which the fiscal agent is the Ministry of Finance Representative Office in New York are called "notes".

Independent Public Issues

In 1994, the Accountant General Division made a strategic decision to carry out public issues of bonds in the amount of \$200-250 million each year between 1995 and 1998, in one or more of the international financial markets. From 1995 to mid-2004, nine international issues were performed in the three central capital markets – the American market, the Euro market, and the Japanese market. The strategic decision to penetrate the international markets was taken based on the economic development of the State



Debt Management Unit, Debt Management Policy Goals, and Tools for Implementation

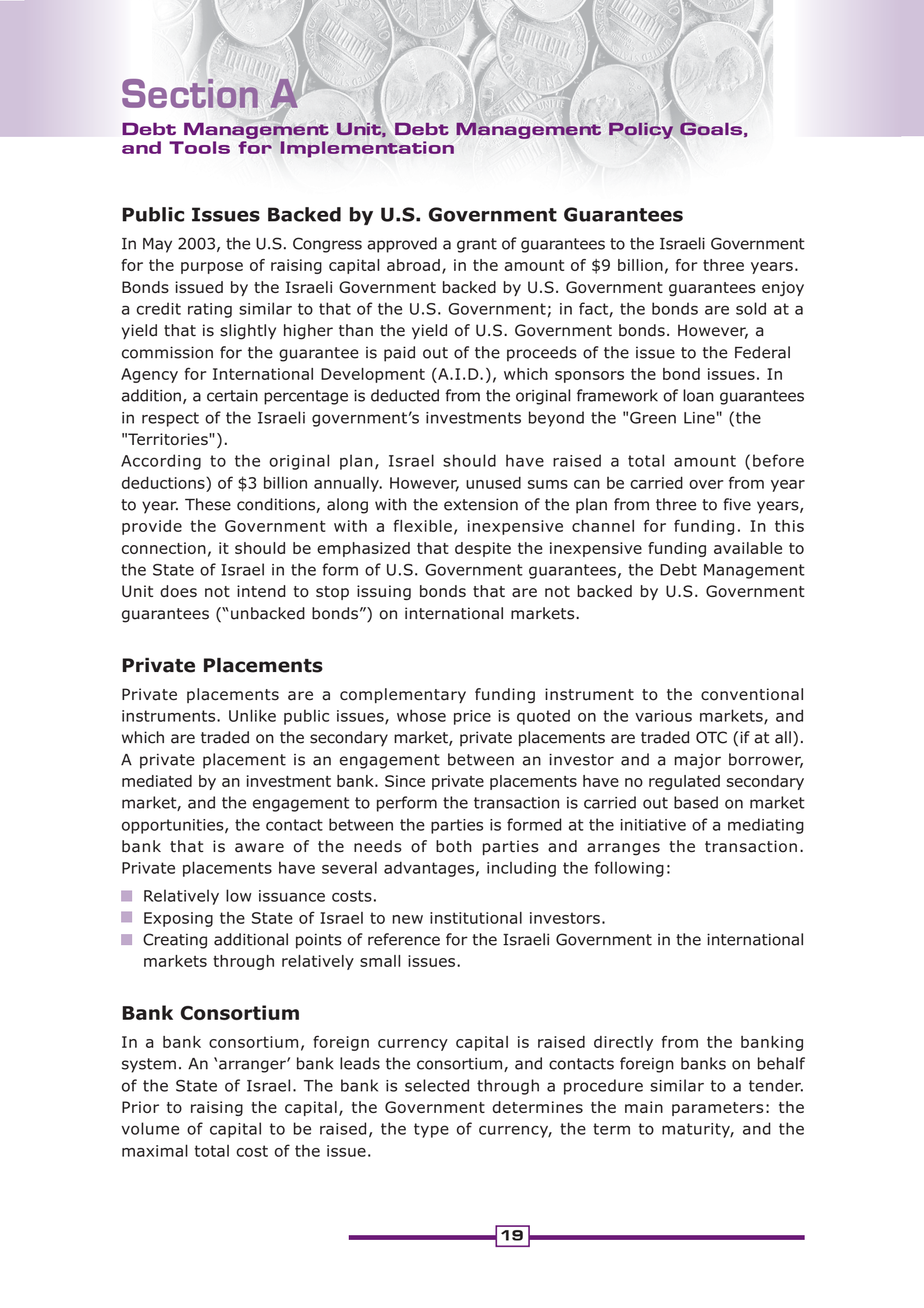
of Israel, which enabled foreign currency funding without external guarantees. Since 1999, the volume of issues has increased several times; in 2003, the Israeli Government issued bonds at a volume of \$750 million. The increased volume of the issue contributed to its liquidity and tradability. In 2004, the Government performed an additional issue at a volume of \$500 million, for a period of ten years. The issue was carried out at a spread of 115 basis points (1.15%) over U.S. Government yields, the lowest spread achieved by Israel for a comparable issue in the past several years, and some 40 basis points lower than the previous issue.

Independent issues have the following advantages:

- Reducing dependence on foreign governments, and preparing an infrastructure for economic independence.
- Creating an additional source for raising capital in foreign currency, which increases flexibility in selecting funding sources.
- Opening new financial markets to the Israeli economy.
- Exposing the Israeli economy to foreign investors – a 'road show' is performed as part of the issuance process. Additional means are also used during capital raising, such as advertising and public relations. These methods expose the Israeli economy to foreign investors, making the name 'Israel' a brand name in the field of credit.
- Creating a benchmark for issues of Israeli companies abroad.
- Fluctuations in tradable bond spreads provide an ongoing indication of foreign investors' perception of the condition of the Israeli economy and the performance of the Israeli government.

Israeli Government bonds are priced above the local benchmark in each of the international markets (TB in the American market, Bund/OAT in the Euro market, and JGB in the Japanese market). However, quotes for Israeli Government bonds are not available for all markets and for all possible terms to maturity. In these cases, there are several methods for estimating the missing spreads:

- Determining the Israeli Government's spread based on the spread of a reference ('peer') group. This group is the group of countries with a credit rating similar to Israel's, whose bonds are similarly priced in the market (South Korea, Croatia, Chile).
- Determining the spread using quotes of the Israeli Government's spread for different terms to maturity or in other markets. This quote is translated into the desired theoretical quote via exchange quotes between currencies, interest rates, and markets.
- Determining the spread using the price quotes of Israeli utility companies such as the Israel Electric Corporation, for which the spread between the company and the government can be evaluated.



Section A

Debt Management Unit, Debt Management Policy Goals, and Tools for Implementation

Public Issues Backed by U.S. Government Guarantees

In May 2003, the U.S. Congress approved a grant of guarantees to the Israeli Government for the purpose of raising capital abroad, in the amount of \$9 billion, for three years. Bonds issued by the Israeli Government backed by U.S. Government guarantees enjoy a credit rating similar to that of the U.S. Government; in fact, the bonds are sold at a yield that is slightly higher than the yield of U.S. Government bonds. However, a commission for the guarantee is paid out of the proceeds of the issue to the Federal Agency for International Development (A.I.D.), which sponsors the bond issues. In addition, a certain percentage is deducted from the original framework of loan guarantees in respect of the Israeli government's investments beyond the "Green Line" (the "Territories").

According to the original plan, Israel should have raised a total amount (before deductions) of \$3 billion annually. However, unused sums can be carried over from year to year. These conditions, along with the extension of the plan from three to five years, provide the Government with a flexible, inexpensive channel for funding. In this connection, it should be emphasized that despite the inexpensive funding available to the State of Israel in the form of U.S. Government guarantees, the Debt Management Unit does not intend to stop issuing bonds that are not backed by U.S. Government guarantees ("unbacked bonds") on international markets.

Private Placements

Private placements are a complementary funding instrument to the conventional instruments. Unlike public issues, whose price is quoted on the various markets, and which are traded on the secondary market, private placements are traded OTC (if at all). A private placement is an engagement between an investor and a major borrower, mediated by an investment bank. Since private placements have no regulated secondary market, and the engagement to perform the transaction is carried out based on market opportunities, the contact between the parties is formed at the initiative of a mediating bank that is aware of the needs of both parties and arranges the transaction. Private placements have several advantages, including the following:

- Relatively low issuance costs.
- Exposing the State of Israel to new institutional investors.
- Creating additional points of reference for the Israeli Government in the international markets through relatively small issues.

Bank Consortium

In a bank consortium, foreign currency capital is raised directly from the banking system. An 'arranger' bank leads the consortium, and contacts foreign banks on behalf of the State of Israel. The bank is selected through a procedure similar to a tender. Prior to raising the capital, the Government determines the main parameters: the volume of capital to be raised, the type of currency, the term to maturity, and the maximal total cost of the issue.

Shelf Registrations

In an attempt to reach international markets, the Debt Management Unit makes use of shelf registrations. These documents establish the legal infrastructure for issues in advance, thereby enabling issues on international markets to take place rapidly, with little effort. Shelf registrations are used for private placements and public issues. Shelf registrations have the following advantages:

- **Flexibility** – the plan formulates a framework for the management of external debt: funding in various currencies, for different terms to maturity, at different types of interest (fixed, floating, zero coupon, and more), different types of structure (simple or structured), and different types of issues (public or private).
- **Rapid execution of transactions** – a single negotiation conducted with regard to the legal infrastructure of all the transactions within the plan allows for rapid execution of transactions.
Quick response – the plan makes it possible to take advantage of market opportunities and raise capital according to banks' proposals (investor-driven issues).
- **Provides the issuer with the option of determining the volume, type, and term to maturity of transactions, according to needs, while taking market conditions into consideration.**
- **Allows rapid funding in case of unexpected needs.**
- **Allows increases or decreases in the volume of issuance.**

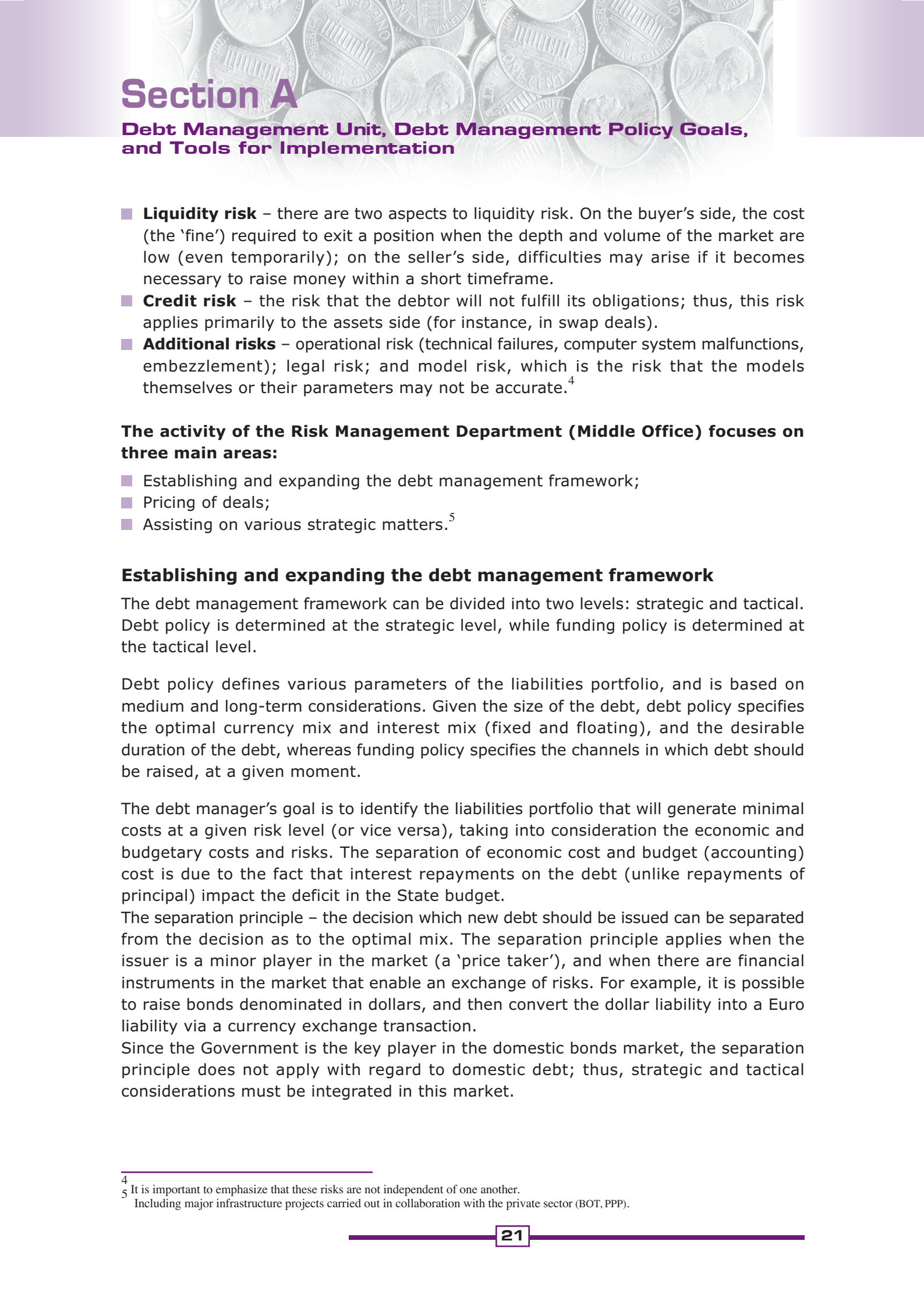
In 1996, at the initiative of the Accountant General Division, the State of Israel joined an EMTN (Euro Medium Term Notes) program. This program formulates a specified framework for the management of funding in the Euro market, and affords accessibility to the market and a more efficient issuance process. In addition, the Accountant General Division has opened shelf registrations for issues in the United States and Japan.

5. Risk Management

Examinations of the distribution of risks related to debt management, identification of measures to reduce the costs of debt, and analyses of the risks in the Government's liabilities portfolio are essential tools assisting the Government in meeting its financing needs and fulfilling its obligations at the minimal cost possible (in the medium and long term) while taking risk limitations into consideration.

The Government's liabilities portfolio is exposed to a variety of risks:

- **Market risk** – risk derived from changes in market prices, such as changes in interest rates and exchange rates, changes in volatility, etc. In order to calculate risk indices such as VaR, it is first necessary to assess the market value of the portfolio and its sensitivity to changes in the relevant risk factors in the market. Market risk factors include the zero curves for each relevant currency, exchange rates, standard deviations, correlations, and possible changes in spreads.
- **Rollover / refinancing risk** – the risk that debt will have to be rolled over at a particularly high cost due to inconvenient market conditions, or that there will be no possibility of rollover at all.



Section A

Debt Management Unit, Debt Management Policy Goals, and Tools for Implementation

- **Liquidity risk** – there are two aspects to liquidity risk. On the buyer's side, the cost (the 'fine') required to exit a position when the depth and volume of the market are low (even temporarily); on the seller's side, difficulties may arise if it becomes necessary to raise money within a short timeframe.
- **Credit risk** – the risk that the debtor will not fulfill its obligations; thus, this risk applies primarily to the assets side (for instance, in swap deals).
- **Additional risks** – operational risk (technical failures, computer system malfunctions, embezzlement); legal risk; and model risk, which is the risk that the models themselves or their parameters may not be accurate.⁴

The activity of the Risk Management Department (Middle Office) focuses on three main areas:

- Establishing and expanding the debt management framework;
- Pricing of deals;
- Assisting on various strategic matters.⁵

Establishing and expanding the debt management framework

The debt management framework can be divided into two levels: strategic and tactical. Debt policy is determined at the strategic level, while funding policy is determined at the tactical level.

Debt policy defines various parameters of the liabilities portfolio, and is based on medium and long-term considerations. Given the size of the debt, debt policy specifies the optimal currency mix and interest mix (fixed and floating), and the desirable duration of the debt, whereas funding policy specifies the channels in which debt should be raised, at a given moment.

The debt manager's goal is to identify the liabilities portfolio that will generate minimal costs at a given risk level (or vice versa), taking into consideration the economic and budgetary costs and risks. The separation of economic cost and budget (accounting) cost is due to the fact that interest repayments on the debt (unlike repayments of principal) impact the deficit in the State budget.

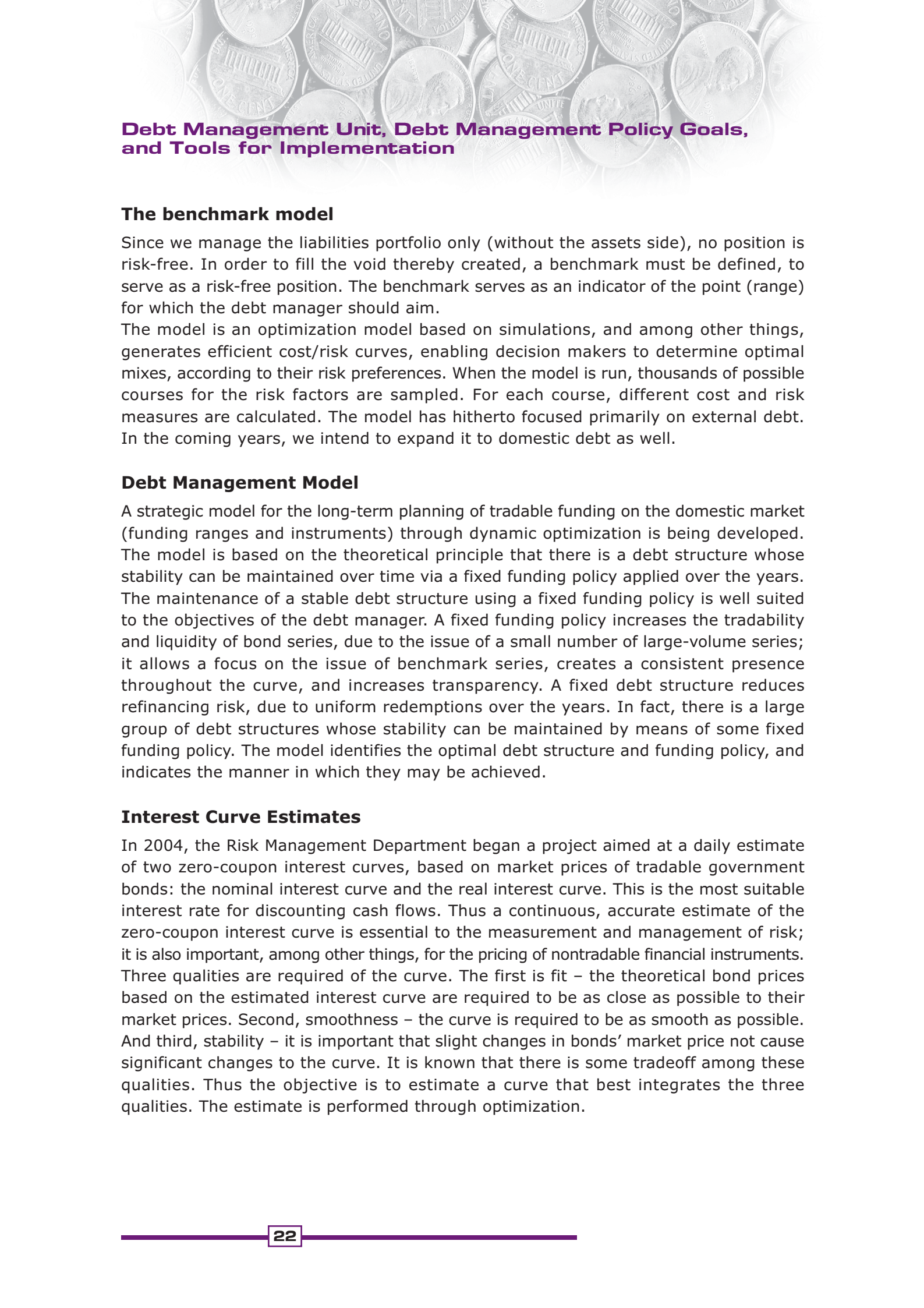
The separation principle – the decision which new debt should be issued can be separated from the decision as to the optimal mix. The separation principle applies when the issuer is a minor player in the market (a 'price taker'), and when there are financial instruments in the market that enable an exchange of risks. For example, it is possible to raise bonds denominated in dollars, and then convert the dollar liability into a Euro liability via a currency exchange transaction.

Since the Government is the key player in the domestic bonds market, the separation principle does not apply with regard to domestic debt; thus, strategic and tactical considerations must be integrated in this market.

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⁵ It is important to emphasize that these risks are not independent of one another.

Including major infrastructure projects carried out in collaboration with the private sector (BOT, PPP).



Debt Management Unit, Debt Management Policy Goals, and Tools for Implementation

The benchmark model

Since we manage the liabilities portfolio only (without the assets side), no position is risk-free. In order to fill the void thereby created, a benchmark must be defined, to serve as a risk-free position. The benchmark serves as an indicator of the point (range) for which the debt manager should aim.

The model is an optimization model based on simulations, and among other things, generates efficient cost/risk curves, enabling decision makers to determine optimal mixes, according to their risk preferences. When the model is run, thousands of possible courses for the risk factors are sampled. For each course, different cost and risk measures are calculated. The model has hitherto focused primarily on external debt. In the coming years, we intend to expand it to domestic debt as well.

Debt Management Model

A strategic model for the long-term planning of tradable funding on the domestic market (funding ranges and instruments) through dynamic optimization is being developed. The model is based on the theoretical principle that there is a debt structure whose stability can be maintained over time via a fixed funding policy applied over the years. The maintenance of a stable debt structure using a fixed funding policy is well suited to the objectives of the debt manager. A fixed funding policy increases the tradability and liquidity of bond series, due to the issue of a small number of large-volume series; it allows a focus on the issue of benchmark series, creates a consistent presence throughout the curve, and increases transparency. A fixed debt structure reduces refinancing risk, due to uniform redemptions over the years. In fact, there is a large group of debt structures whose stability can be maintained by means of some fixed funding policy. The model identifies the optimal debt structure and funding policy, and indicates the manner in which they may be achieved.

Interest Curve Estimates

In 2004, the Risk Management Department began a project aimed at a daily estimate of two zero-coupon interest curves, based on market prices of tradable government bonds: the nominal interest curve and the real interest curve. This is the most suitable interest rate for discounting cash flows. Thus a continuous, accurate estimate of the zero-coupon interest curve is essential to the measurement and management of risk; it is also important, among other things, for the pricing of nontradable financial instruments. Three qualities are required of the curve. The first is fit – the theoretical bond prices based on the estimated interest curve are required to be as close as possible to their market prices. Second, smoothness – the curve is required to be as smooth as possible. And third, stability – it is important that slight changes in bonds' market price not cause significant changes to the curve. It is known that there is some tradeoff among these qualities. Thus the objective is to estimate a curve that best integrates the three qualities. The estimate is performed through optimization.



Section A

Debt Management Unit, Debt Management Policy Goals, and Tools for Implementation

Testing the sensitivity of interest and principal payments to market factors

The Risk Management Department routinely examines the sensitivity of interest and principal payments to the various risk factors, and their influence on the State budget. The result of the sensitivity report is the distribution of payments, not a sensitivity analysis of 'what if' scenarios. In other words, in addition to the expected payment as a result of the occurrence of a certain event, the probability of its occurrence is also calculated.

This report is also joined by an analysis of extreme situations (stress testing) report, which describes the effect of these situations on the expected cash flow. The purpose of these reports is to contribute to discussions about the deficit and means of financing it, and to help determine the required safety margin for budgeting the interest and principal repayments.

■ Pricing

In-house pricing capabilities of various sophisticated financial instruments, such as callable bonds, basis swaps, FX swaps, IR swaps, and more.

■ Assistance on various strategic matters

In 2004, the Department assisted in additional areas, such as promoting the introduction of primary and secondary dealers into the Government bonds market, examining the risks of various State guarantees, publishing future debt repayment forecasts, and more.

6. Research

The Debt Management Unit assisted in a study that examined the effect of fiscal policy on real interest rates in the capital market (Y. Zelekha & A. Cohen, "The Effect of Fiscal Policy on Real Interest Rates in the Capital Market", March 2005). The study found non-Keynesian effects of fiscal policy on interest rates in the markets. The fiscal policy variables – the rate of government expenditures out of the GDP, and the ratio of debt to GDP – were found to have significant negative flexibility relative to the interest rate. The findings indicate that monetary policy has the strongest effect on the real interest rate in the short term, but in the medium-short term the strength of the fiscal and monetary effects is equalized, while in the medium-long term the effect of fiscal policy is greater than that of monetary policy (at least during the sample period, and based on the unique conditions of the Israeli economy).

However, the study shows that the effects of both monetary and fiscal policy gradually diminish, in line with the accepted theory in the literature, according to which both effects fade entirely in the long term.



Section B

Developments in the Domestic Government Bonds Market and in Global Bonds Markets in 2004

1. Macro-Economic Developments and Developments in the Domestic Capital Market in 2004

The trend of growth that began in the second half of 2003 continued in 2004. Gross domestic product (GDP) grew at an average annual rate of 4.4 percent, versus 1.7 percent in 2003. Per-capita GDP increased at a quick rate of 2.5 percent, versus an 0.5 percent decrease in 2003. 2004 was also marked by low inflation (1.2 percent during the year; an annual average rate of -0.4 percent), a decrease in the shekel exchange rate against the dollar (-1.6 percent), and a moderate increase in the shekel exchange rate against the currency basket (0.8 percent). Government tax revenues increased in 2004, concurrent with underperformance in ministries' expenditures. As a result, the deficit decreased, to NIS 20.4 billion, approximately 3.89 percent of the GDP. Note that in 2004 the government succeeded in attaining the target deficit of 4 percent, following a breach of the target deficit in the preceding year.

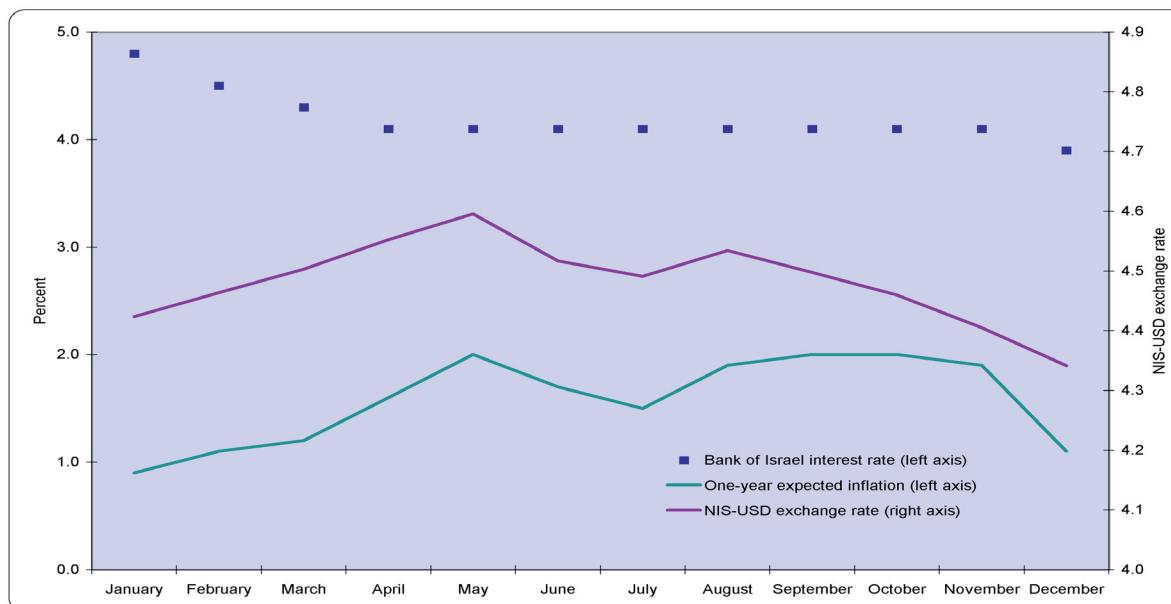
The trend of expanding economic activity and price stability resulted from several factors:

1. A reliable fiscal policy, and the channeling of resources towards growth-supporting targets.
2. The continued global economic growth and the increased volume of international trade, which led to increased demand for Israeli export products.
3. The relative stability in the security situation, and the regime change in the Palestinian Authority during the final quarter of the year, which led to optimism regarding renewal of the diplomatic process.
4. The sharp decline in the value of the dollar against other major global currencies, which led to the appreciation of the shekel against the dollar.

With the background of price stability and the convergence of inflationary expectations into the government's long-term inflation target range, the Bank of Israel continued the trend of reductions in the nominal interest rate in 2004 as well – during the first four months of the year, the interest rate fell from 4.8 percent in January to 4.1 percent in April; in December 2004, the Bank of Israel lowered the interest rate again, to 3.9 percent. Interest rate reductions continued into the first months of 2005, to the historically low level of 3.5 percent. Note that interest rate reductions by the Bank of Israel continued despite an increase in the Federal Reserve interest rate in the United States, and the contraction of the spread between this rate and the Bank of Israel interest rate to parity percent in 2005, due, among other causes, to inflation rates lower than those in the United States and lower than the inflation target.

Developments in the Domestic Government Bonds Market and in Global Bonds Markets in 2004

Diagram B-1: Developments in interest rates, exchange rates, and inflation expectations in 2004



Source: Bank of Israel

Against the background of expanding economic activity and price stability, the domestic capital market in general and the stock market in particular enjoyed impressive price increases: the general stock index on the Tel Aviv Stock Exchange gained 17.6 percent during 2004, the TA-100 index rose by 19.0 percent, and the TA-25 index rose by 22.6 percent. Note that the trend of rising prices reversed temporarily in June, following a sharp increase in oil prices, which led to steep declines in global stock markets and subsequently in the TASE as well. However, after oil prices decreased later in the year, stock prices rose sharply, compensating for the previous declines. Trading volumes also increased: the average daily turnover in stocks and convertible securities, on and off the stock exchange, rose by 69.0 percent in 2004, and stood at NIS 618.4 million.

The bonds market also benefited from the favorable background conditions; the general bonds index gained 5.3 percent in 2004. Daily turnovers in government and private bonds (on and off the stock exchange) rose considerably in 2004 (by 31.2 percent), to NIS 939.4 million. The decreased volume of government funding, the relatively low yields, and the entry of pension funds into the capital market led to a continued resurgence of the corporate bonds market, which recorded a 5.4 percent increase in prices, and a dramatic 241 percent increase in average daily turnovers (from NIS 16.8 million to NIS 57.3 million) (see details in Section F).

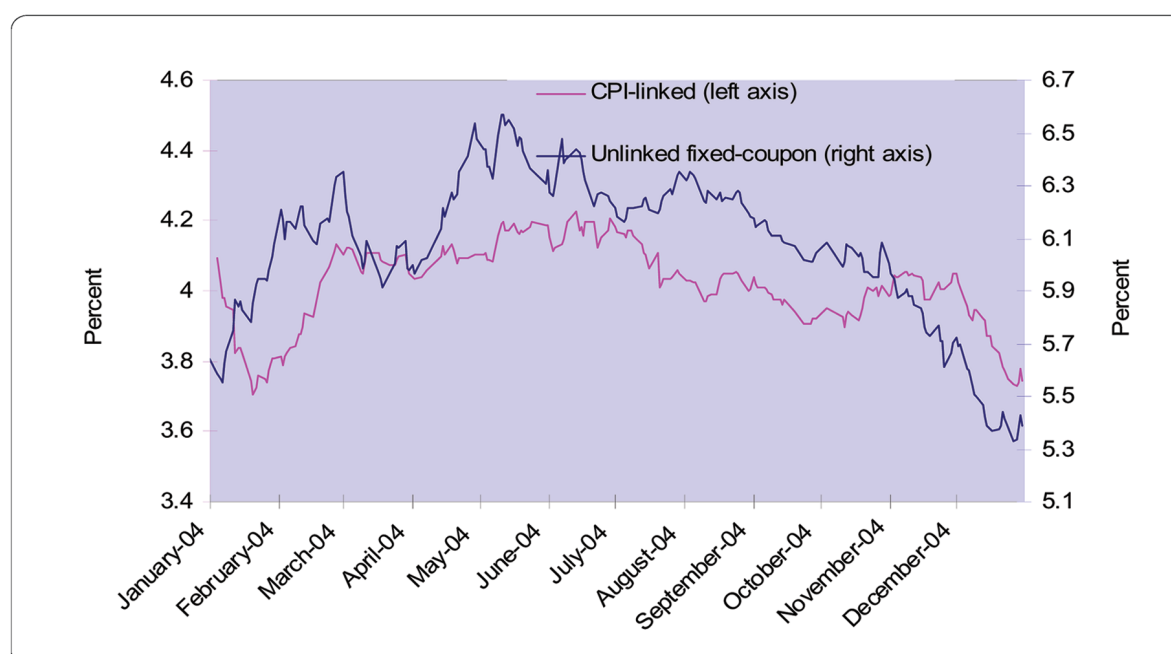
Section B

Developments in the Domestic Government Bonds Market and in Global Bonds Markets in 2004

2. Main Developments in the Domestic Government Bonds Market

Government bond holders benefited from a continued decrease in yields and increase in prices in 2004. Prices of government bonds rose by an average 5.4 percent in 2004, CPI-linked government bond prices rose by 5.1 percent, and unlinked bond prices rose by 5.6 percent.

Diagram B-2: Developments in government bond yields in 2004 (weighted average)⁽¹⁾



⁽¹⁾ The weighted average of CPI-linked government bonds was calculated using yields of series larger than NIS 1.5 billion in nominal value, with a term to maturity of over one year.

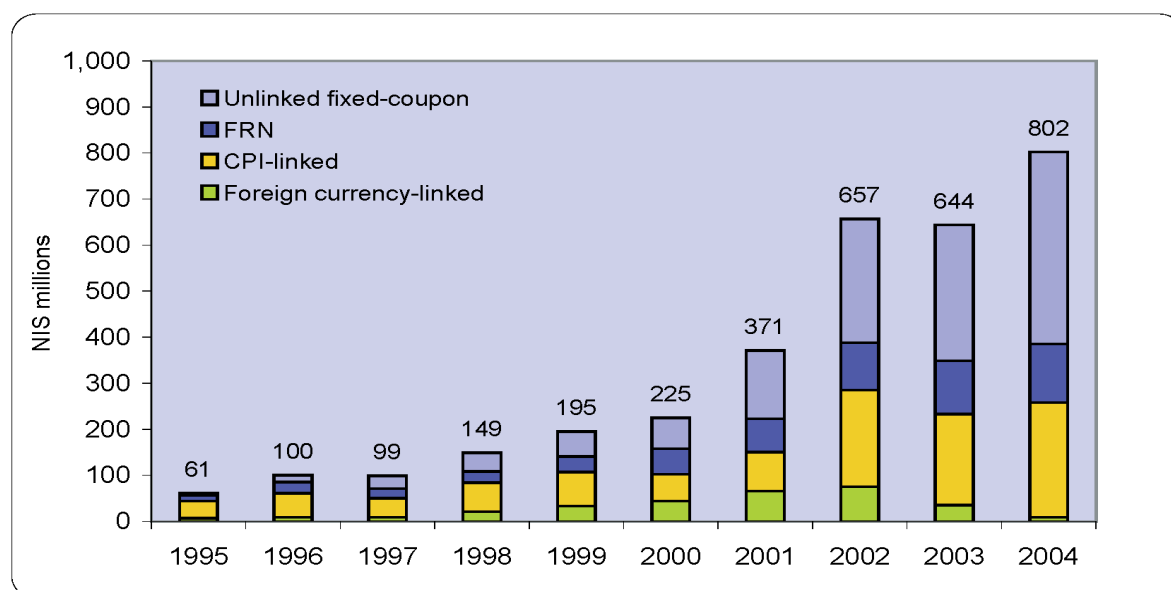
Source: Government Debt Management Unit, Ministry of Finance

Government bonds drew the highest volume of trading activity on the TASE again this year, reaching 41.3 percent of total trading on the exchange. Government bond trading volumes continued to expand this year, and their average daily turnover (on and off the stock exchange) recorded a 25.8 percent increase, to NIS 877 million (the average daily turnover on the TASE stood at NIS 802 million). A particularly notable increase in trading volumes occurred in unlinked fixed-coupon bonds, while turnovers in CPI-linked bonds and in FRNs (floating-rate notes) rose more moderately. Trading in foreign currency-linked bonds stopped almost entirely, as only one small NIS 300 million series remained

Developments in the Domestic Government Bonds Market and in Global Bonds Markets in 2004

in circulation. Beyond the changes in the supply of bonds, the sharp increase in turnovers of unlinked fixed-coupon bonds (Shahar type) resulted from the consolidation of their status as the key financial instrument in the capital market, as is the case in developed capital markets in other countries.

Diagram B-3: Turnovers of government bonds on the Tel Aviv Stock Exchange, by linkage type



A. Unlinked Instruments

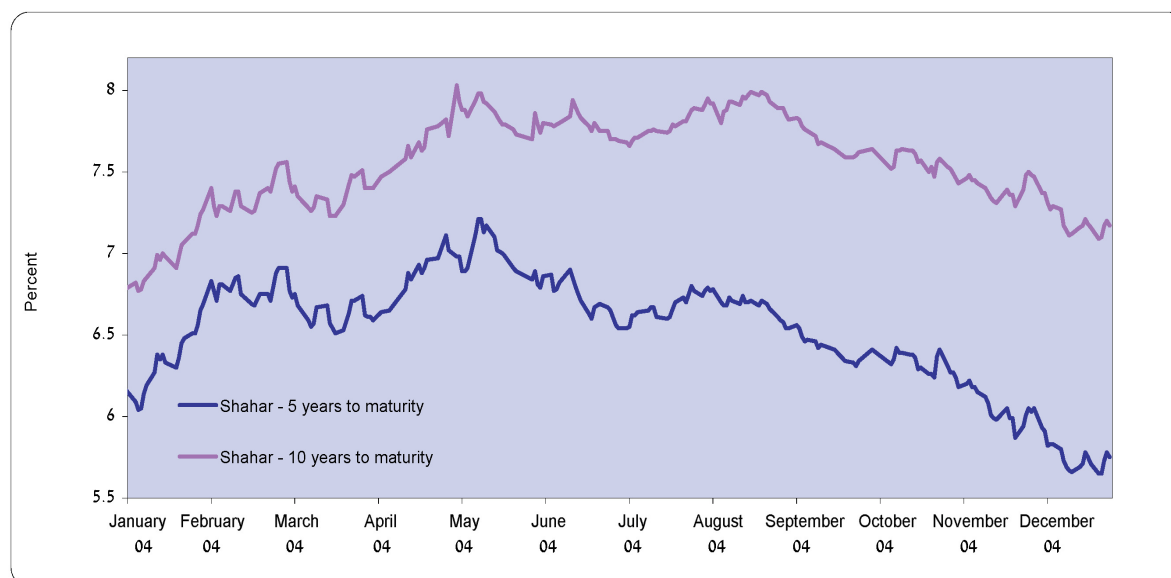
Fixed Interest

Shahar type bonds recorded a 6.4 percent increase in prices during the year (versus 24.2 percent in 2003). The average yield of these bonds fell from 5.9 percent in January to 5.6 percent in December. Average daily turnovers in unlinked fixed-coupon bonds on the TASE increased by 50.1 percent in 2004, reaching NIS 445 million. This sharp increase indicates the transition to unlinked instruments over recent years, at the expense of other instruments.

Section B

Developments in the Domestic Government Bonds Market and in Global Bonds Markets in 2004

Diagram B-4: Yields of unlinked fixed-coupon bonds for different terms to maturity in 2004

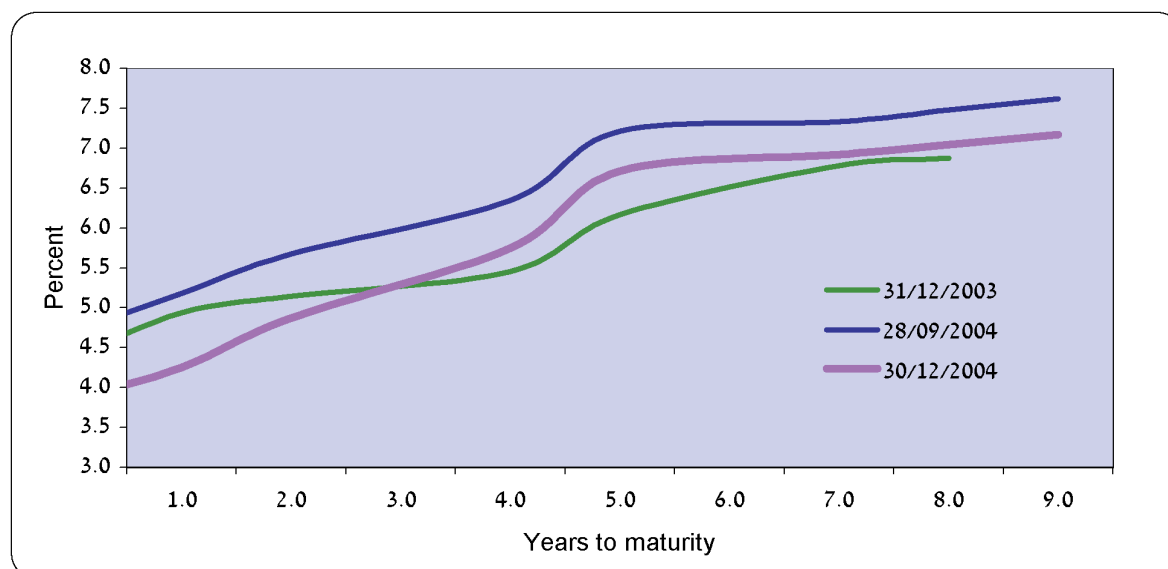


Source: Government Debt Management Unit, Ministry of Finance

From January to May, yields of medium and long-term unlinked fixed-coupon bonds increased, due, among other causes, to the increase in yields of long-term bonds in the United States, despite the sharp reduction in Bank of Israel interest rates during the period. From mid-year to the end of the third quarter, long-term yields stabilized, while medium-term yields decreased moderately. In the last quarter of the year, against the background of monetary stability, the gain in the shekel's strength against the dollar, and the low inflationary expectations, estimates increased that the Bank of Israel would lower the interest rate, and yields declined sharply in both short and long-term bonds; 10-year bond yields stood at 7.17 percent at the end of the year, dropped below 7 percent in early 2005, and dropped further to below 6 percent in May 2005.

Developments in the Domestic Government Bonds Market and in Global Bonds Markets in 2004

Diagram B-5: Yield curves of unlinked fixed-coupon bonds in 2003-2004



Source: Government Debt Management Unit, Ministry of Finance

Diagram B-5 presents yields of unlinked fixed-coupon bonds with different terms to maturity (hereafter: "yield curves"). A yield curve sloping upward from left to right is the 'normal' curve, representing the risk premium investors demand for a long-term investment over a short-term investment. Conversely, a flat curve represents the premium offset against expectations of a decrease in the interest rate. When the market expects the interest rate to rise, long-term bond yields increase relative to short-term bond yields, and the slope of the curve rises.

Long-term yields increased during the first quarter, while short-term yields remained unchanged. As a result, the slope of the curve increased. In the third quarter, short-term yields rose while long-term yields remained unchanged, so that the slope of the curve decreased. In the last quarter of the year, yields declined all across the curve as a result of the decrease in the Bank of Israel's interest rate as well as the decline in long-term yields in the United States, and the entire curve decreased, while its slope remained unchanged.

Floating Interest

Gilon and New Gilon type bonds recorded a price increase of 4.5 percent during the year (versus 13.9 percent in 2003); the average yield of these bonds fell from 5.1 percent in January to 4.6 percent in December. Average daily turnovers in FRNs on the TASE grew by 15.3 percent in 2004, to NIS 133 million.

The interest on these bonds changes periodically (every six months for the Gilon, and

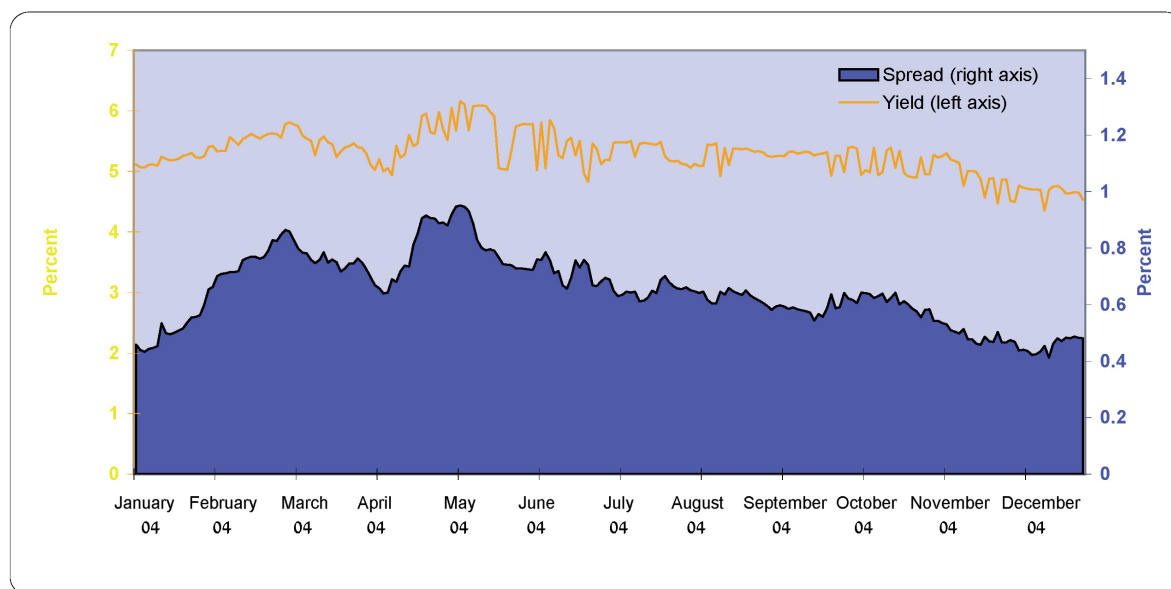
Section B

Developments in the Domestic Government Bonds Market and in Global Bonds Markets in 2004

every quarter for the New Gilon), based on the weighted average yields of Makams at three month to one year terms to maturity. This yield is essentially the underlying asset of FRNs, relative to which their yield spread is measured. The difference between the bond yield and the yield of its underlying asset is the spread. The spread is positive when the bond yield is higher than that of its underlying asset, and negative when the bond yield is lower.

Diagram B-6 shows the spread between the average yields of FRNs issued after May 2000 (so that they come under the new tax regulations), and their underlying asset. During most of the period in question, the spread was around 0.5 percent. The spread increased during January and February, and later from mid-April to mid-May, due to the sharp decline in the Bank of Israel interest rate and an increase in yields of unlinked fixed-coupon bonds. Later in the year, the spread decreased moderately, to 0.5 percent by year end. Yields of New Gilon type bonds were low, standing at 4.6 percent at the end of the year.

Diagram B-6: Yields of several FRNS⁽¹⁾, and the spread between the bonds and the yield of the underlying assets, in 2004
(weighted average)



⁽¹⁾ For uniformity, only bonds issued after May 2000 were used.

Source: Government Debt Management Unit, Ministry of Finance

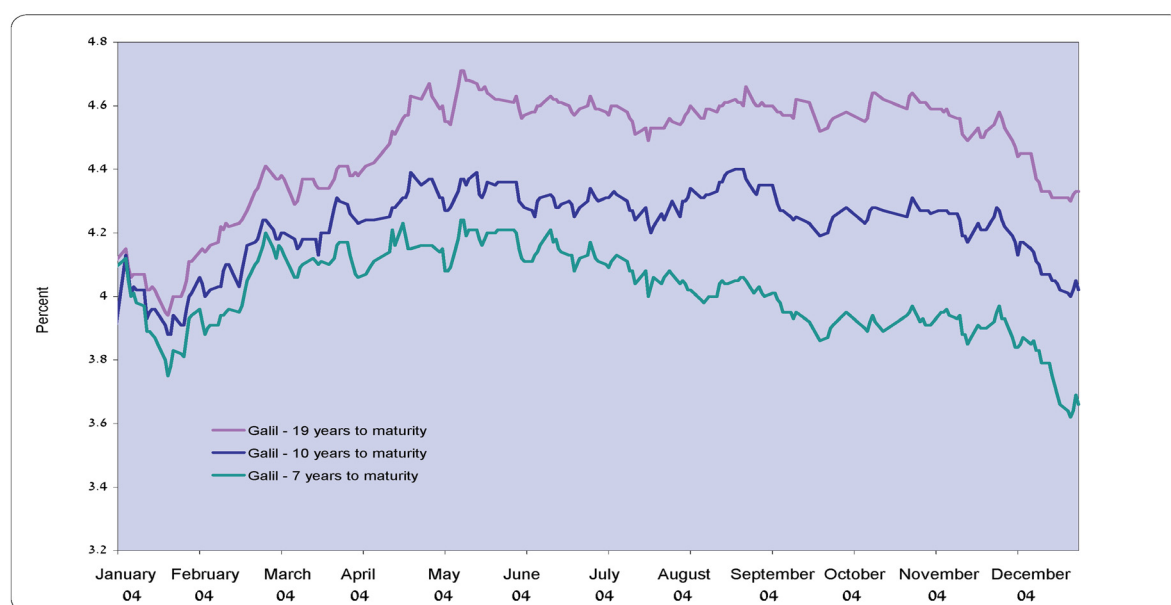
Developments in the Domestic Government Bonds Market and in Global Bonds Markets in 2004

B. CPI-Linked Fixed-Coupon Instruments

Galil type bonds recorded a 5.1 percent price increase during the year (versus 10.0 percent in 2003). Their average yield decreased by just 0.1 percent, from 3.8 percent in January to 3.7 percent in December. The average daily turnover in CPI-linked bonds on the TASE grew by 27.1 percent in 2004, to NIS 249 million.

From the end of January to the beginning of May, long-term bond yields rose sharply, due, among other causes, to the increase in yields of linked and unlinked bonds in the United States, while short and medium-term yields rose only moderately, due to the decrease in the Bank of Israel interest rate during the period, which offset the effect of the increase in yields in the United States. Medium and long-term yields stabilized later in the year. Yields decreased towards the end of the year, due to the decrease in the Bank of Israel interest rate and the decrease in long-term yields in the United States.

Diagram B-7: CPI-linked bond yields at different terms to maturity in 2004



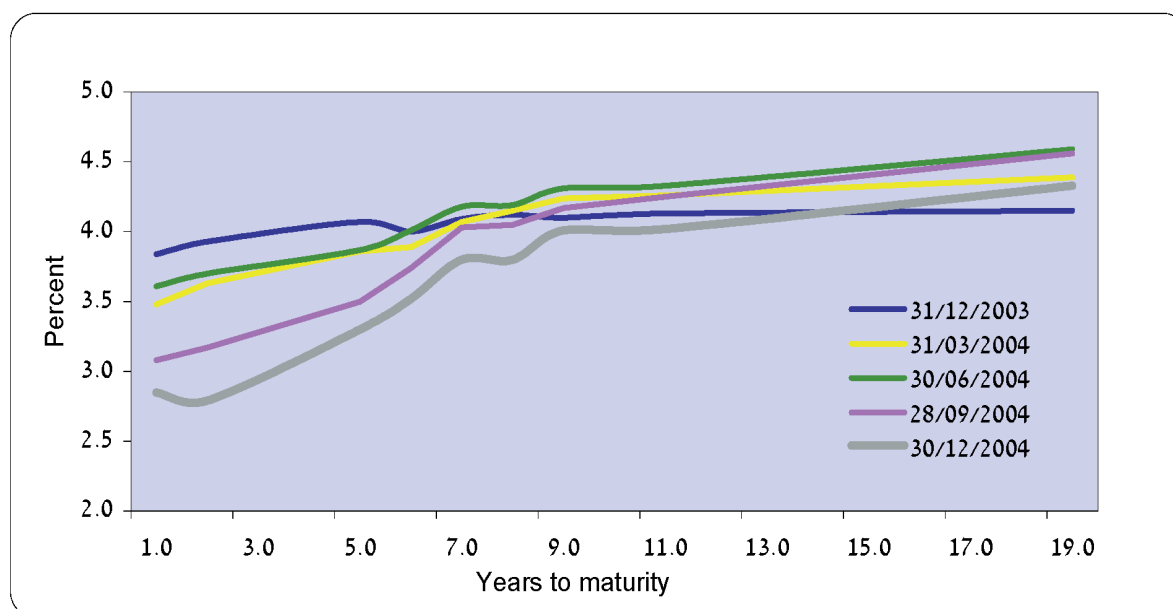
Source: Government Debt Management Unit, Ministry of Finance

Diagram B-8 presents the yield curves of CPI-linked bonds at different terms to maturity. In the first quarter of the year, long-term yields rose, while short-term yields fell; as a result, the slope of the yield curve turned positive, after remaining flat during 2003. The yield curve's slope became steeper still in the third quarter, as a result of a decrease in short-term bond yields and a moderate increase in long-term yields. The same slope was maintained in the fourth quarter, while yields decreased all across the curve.

Section B

Developments in the Domestic Government Bonds Market and in Global Bonds Markets in 2004

Diagram B-8: Yield curves of CPI-linked bonds in 2003-2004



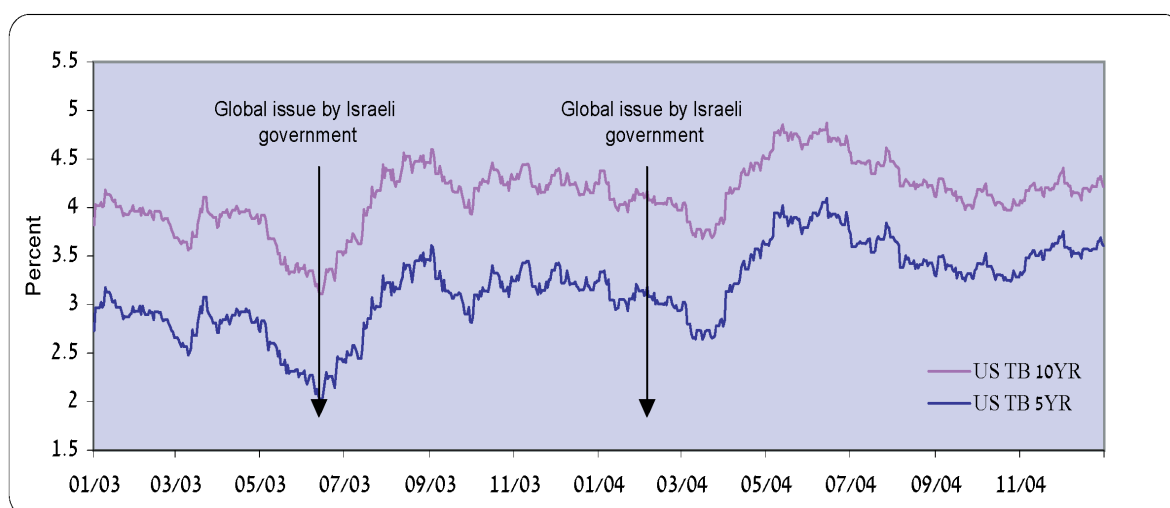
Source: Government Debt Management Unit, Ministry of Finance

3. Developments in the Global Bonds Market

Interest rates remained quite low in U.S. and European bonds markets during 2004. Yields of U.S. government 10-year bonds ranged from 3.68 percent at the low point in mid-March to 4.87 percent in mid-June. In Europe, the yield of German government bonds (the most liquid government bonds, which serve as a benchmark for bonds in the Euro bloc) ranged from 4.45 percent in mid-June to 3.58 percent in mid-December.

Developments in the Domestic Government Bonds Market and in Global Bonds Markets in 2004

Diagram B-9: Developments in yields of U.S. government 5- and 10-year bonds in 2003-2004



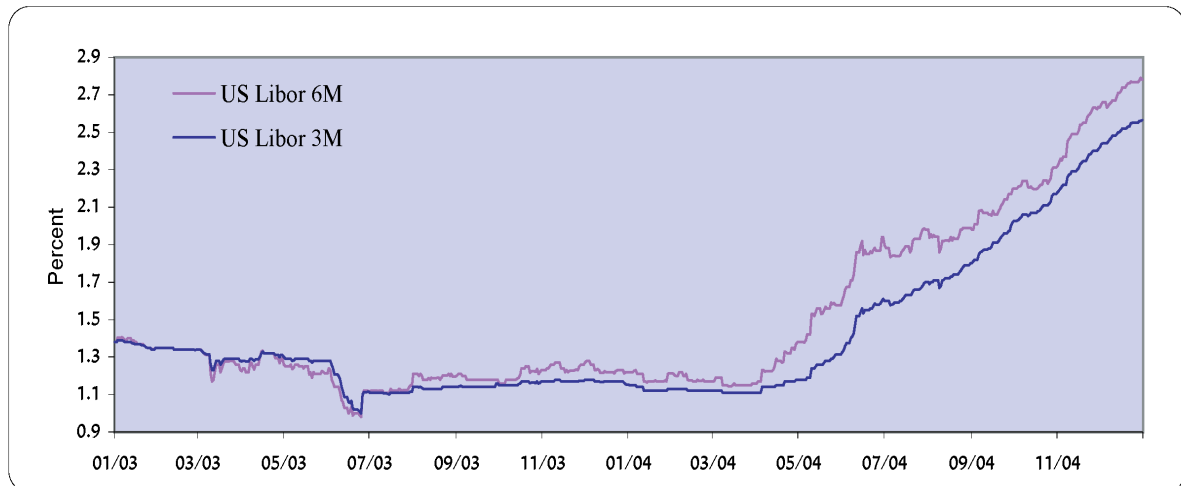
Due to low yield levels, there was brisk demand in the first half of the year for bonds that provide a greater spread than bonds of AAA-rated countries, leading to demand for issues of emerging markets such as Israel, Mexico, Turkey, Venezuela, Brazil, Colombia, Panama, Chile, and Eastern European countries. Due to the demand, spreads of A-rated countries such as Israel contracted.

In 2004, the United States Federal Reserve raised the basic interest rate from a historical low point of one percent at the beginning of the year to 2.25 percent in December 2004. The increases in the interest rate were quite moderate (0.25 percent each), in contrast to the expectations of most capital market analysts, who expected the Fed interest rate to reach 4 percent by the end of 2004. The LIBOR curve was steep during most of the year, mainly due to expectations of an acceleration in growth in the United States (growth was at 4.4 percent in the United States at the end of 2004, versus 3 percent in 2003). While short-term dollar LIBOR rates remained low in historical terms in 2004, interest rates increased continuously starting in April.

Section B

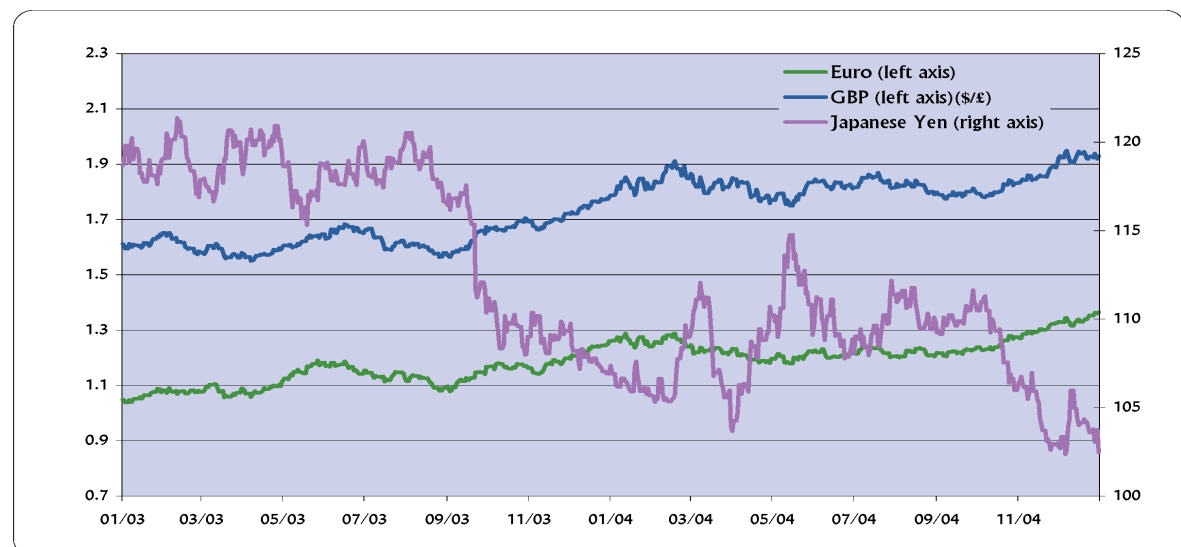
Developments in the Domestic Government Bonds Market and in Global Bonds Markets in 2004

Diagram B-10: Developments in the three and six month LIBOR interest rate in 2003-2004



In the foreign currency market, the consistent weakening of the dollar against the Euro continued, from 1.24 dollars per Euro at the beginning of the year, to an all-time high of 1.36 dollars per Euro at the end of the year, a trend that began in March 2002, when the Euro was at a low point of 0.86 dollars per Euro. The weakening resulted from the interest spreads between the United States and Europe, the extremely large deficits in the United States, and the currency distribution policy of central banks in East Asia.

Diagram B-11: Developments in dollar exchange rates against the Japanese Yen, the Euro, and the GBP in 2003-2004



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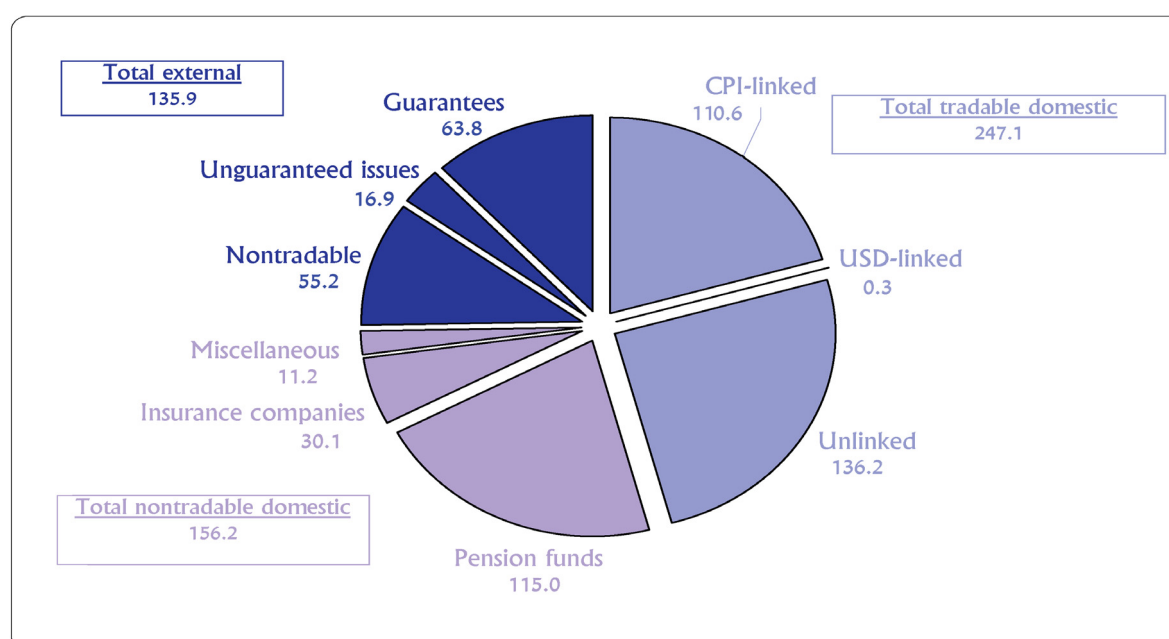
Section c

Debt Management and Deficit Financing

1. Government Debt in 2004

Total government debt increased by 3.5 percent in 2004, and amounted to NIS 539 billion at year end. Domestic debt also increased by 3.5 percent, to a total of NIS 403 billion at the end of 2004, while external debt increased by 3.8 percent, to a total of NIS 136 billion.

Diagram C-1: Structure of government debt at the end of 2004
(NIS billions)



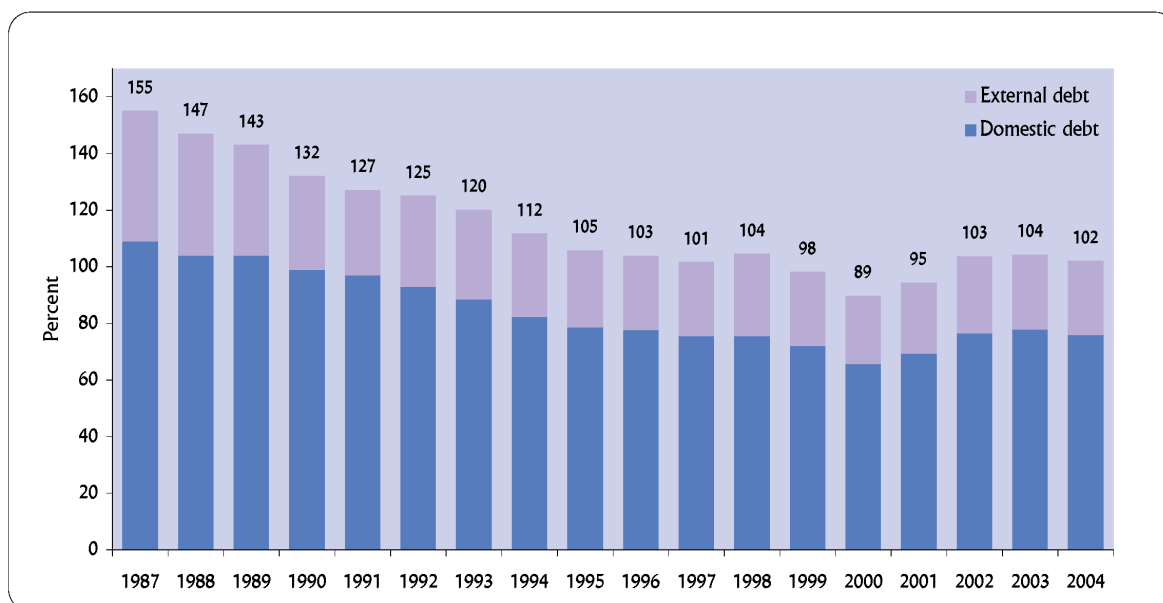
Source: Bank of Israel.

A. Government Debt and Debt to GDP Ratio

The long-term trend of a decreasing debt to GDP ratio, which has characterized the Israeli economy since the mid-1980s, resumed in 2004. The debt to GDP ratio reached 102 percent at year end, versus 104 percent at the end of 2003. In 2005, it is possible that the ratio may drop below the 100 percent line. The debt to GDP ratio is one of the most important variables in determining a country's financial stability and credit rating; the increase in Israel's risk premium in 2002 was largely the result of an increase in this ratio. The temporary increase in the debt to GDP ratio in 2001-2003 resulted from a sharp, continuous decline in State revenues from taxes, and very low growth rates. Thus the continued growth of the Israeli economy, along with a prudent fiscal policy, will ensure the continued downtrend in the debt to GDP ratio and reinforce the economy's financial stability, and the consequent credit rating.

Debt Management and Deficit Financing

Diagram C-2: Government debt to GDP ratio, 1987-2004



Source: Bank of Israel.

Despite the decrease in the government debt to GDP ratio, and despite the fact that the government deficit is not exceptional in international terms, the weight of government debt and total public debt in Israel is one of the highest among the developed economies (as shown in Table C-1). Loan repayments and interest payments constitute a heavy burden on the State budget and on the Israeli economy in general. Interest and principal payments (excluding National Insurance) in the 2005 budget stand at NIS 87.6 billion, or 33.1 percent of the State budget.

Section c

Debt Management and Deficit Financing

Table C-1: Broad⁽¹⁾ government deficit and debt as a percentage of GDP in various countries in 2004

Country	Overall debt as a percentage of GDP
Israel	104.9
Belgium	100.4
Greece	112.1
Italy	120.0
Japan	163.5
Ireland	29.3
Britain	43.4
USA	63.5
Germany	67.0
France	74.0
OECD average	76.8

⁽¹⁾ Broad government debt includes the debt of sub-national governing bodies, such as local authorities.

Source: Sources: OECD Economic Outlook No. 76, Ministry of Finance.

B. Domestic Debt

The balance of domestic debt (tradable and nontradable, excluding debt to the National Insurance Institute) was approximately NIS 403 billion at the end of 2004. Tradable debt increased by 8.3 percent, and stood at approximately NIS 247 billion at the end of the year, or 61.3 percent of total domestic debt. Nontradable debt decreased by 3.3 percent in 2004, to approximately NIS 156 billion at year end, or 38.7 percent of total domestic debt. This year's relatively sharp increase in the share of tradable debt as compared to previous years (2.7 percentage points) is mainly due to the cessation of nontradable bond issues to pension funds, and the funds' channeling to the capital market. Thus in the coming years, in which bond issues to pension funds are expected to be negligible, the rapid growth trend in the share of tradable debt in the total domestic debt is expected to continue.

Table C-2: Distribution of domestic debt - tradable and nontradable debt, 1999-2004⁽¹⁾
(Percent)

Type of debt	1999	2000	2001	2002	2003	2004
Tradable debt	53	54	55	58	58	61
Nontradable debt	47	46	45	42	41	39

⁽¹⁾ Excluding National Insurance.

Source: Bank of Israel.

Debt Management and Deficit Financing

1. Tradable Debt

In 2004, the share of unlinked debt in the total domestic tradable debt continued to increase at a sharp rate, reaching 55.1 percent at year end, versus 50.7 percent at the end of 2003. The increase in the weight of unlinked components came at the expense of the CPI- and USD-linked components, which stood at 44.9 percent at the end of 2004, versus 49.3 percent at the end of 2003. Particularly notable this year was the almost complete disappearance of the USD-linked component of the tradable domestic debt, as a result of the maturation of two Gilboa type bond series. As shown in Table C-3, the weight of the unlinked component has increased by 46.3 percent since 1995, transforming it from a component of secondary importance to the primary component of tradable domestic debt. This trend is in line with the Debt Management Unit's objective of "nominalizing" the domestic debt as well as accepted practice worldwide, since most issues by other countries are of unlinked debt.

Table C-3: Distribution of tradable debt by linkage type, 1995-2004
(Percent)

Type of debt	1995	2001	2002	2003	2004
CPI-Linked	81.3	52.8	49.7	46.8	44.8
USD-linked	9.8	8.8	7.3	2.5	0.1
Unlinked	8.8	38.4	43.0	50.7	55.1

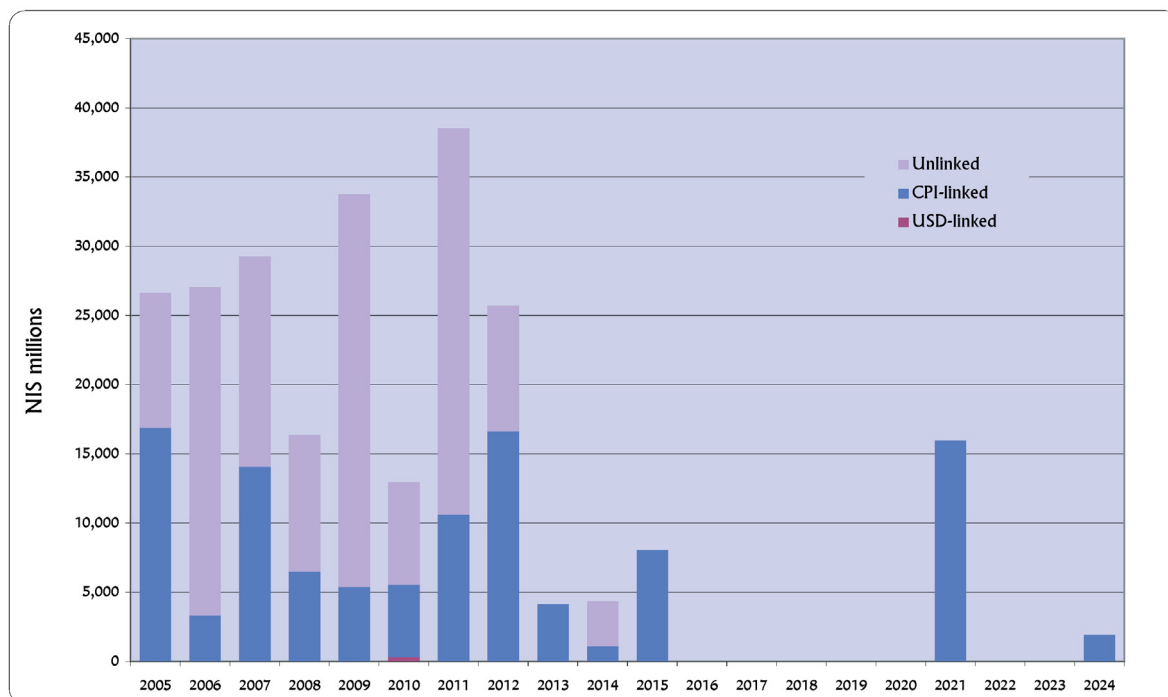
Source: Bank of Israel.

The aforesaid development is based on two main processes: the increase of the unlinked component in the government's tradable funding mix, and the large redemptions of foreign currency-linked and CPI-linked bonds. Linked bond redemptions totaled NIS 13.5 billion in 2004, versus unlinked bond redemptions of only NIS 3.8 billion. However, as shown in Diagram C-3, in the coming years the volume of unlinked tradable redemptions is expected to increase dramatically, curbing the sharp rise in the weight of the unlinked component of total tradable domestic debt.

Section c

Debt Management and Deficit Financing

**Diagram C-3: Tradable domestic redemptions
by linkage type, 2005-2024**



Source: Bank of Israel.

Distribution of Tradable Government Bond Holdings

The market value of tradable government bonds stood at approximately NIS 252.9 billion at the end of 2004. Most bond holdings are still through financial entities such as provident funds, banks, and insurance companies. Foreign investors' low share in the government bonds market is particularly notable. The entry of Primary Dealers into the bonds market, including major international banks, will facilitate foreign institutional investors' entry into the market, and is likely to considerably increase their share of total tradable bond holdings.

Table C-4: Distribution of tradable government bond holders, 1995-2004

Year	Total market value	Others	Mutual funds	Provident funds	Pension funds	Banks	Insurance companies	Foreign investors	Bank of Israel
	(in NIS billions)	(in percent)							
1995	105.2	17.3	4.9	43.2	0.0	28.3	2.8	0.5	3.0
2001	181.0	12.4	15.4	40.4	1.0	15.8	11.1	0.1	3.7
2002	197.1	16.2	10.1	36.5	2.2	19.2	12.1	0.7	3.0
3002	229.6	17.3	14.1	34.5	2.0	16.5	12.8	0.4	2.4
2004	252.9	19.4	11.1	31.6	5.0	17.9	12.5	0.6	1.9

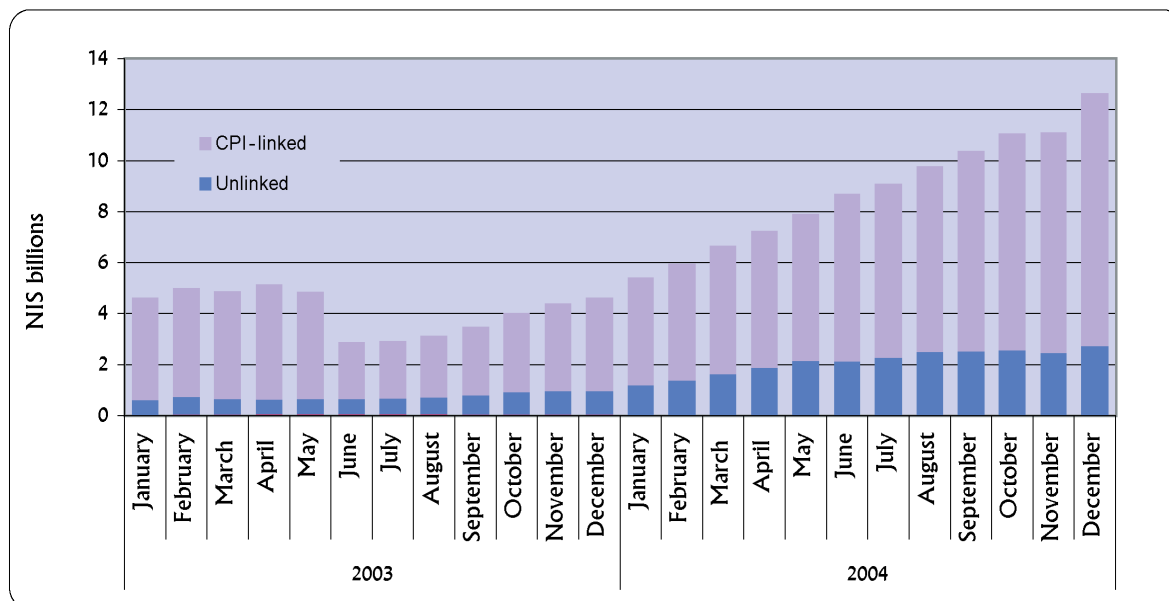
Source: Bank of Israel.

An examination of the distribution of tradable government bond holdings in 1995-2004 shows that the long-term trends of a decreasing weight of bank holdings and an increase in holdings of insurance companies and mutual funds were checked in 2004. However, over the last year, the weight of provident fund holdings still decreased, while the weight of other investors' holdings increased. The most dramatic change seen since mid-2003 is the sharp increase in the weight of pension funds' holdings in tradable government bonds. As a result of the reform in pension funds, full implementation of which began in January 2004, no nontradable bonds were issued to the pension funds this year, and they directed their investments towards the capital market, and the tradable bonds market in particular. As a result, their share of total tradable bond holdings increased by a factor of 2.5, from 2.0 percent to 5.0 percent. Contrary to expectations, government bond purchases by pension funds since the start of the reform did not focus on CPI-linked bonds, but included unlinked bonds as well. The weight of unlinked bonds in the total tradable government bond holdings of pension funds rose from approximately 10 percent at the beginning of 2003 to approximately 20 percent at the end of 2004.

Section c

Debt Management and Deficit Financing

Diagram C-4: Tradable government bond holdings by pension funds



Source: Bank of Israel and processing by the Debt Management Unit.

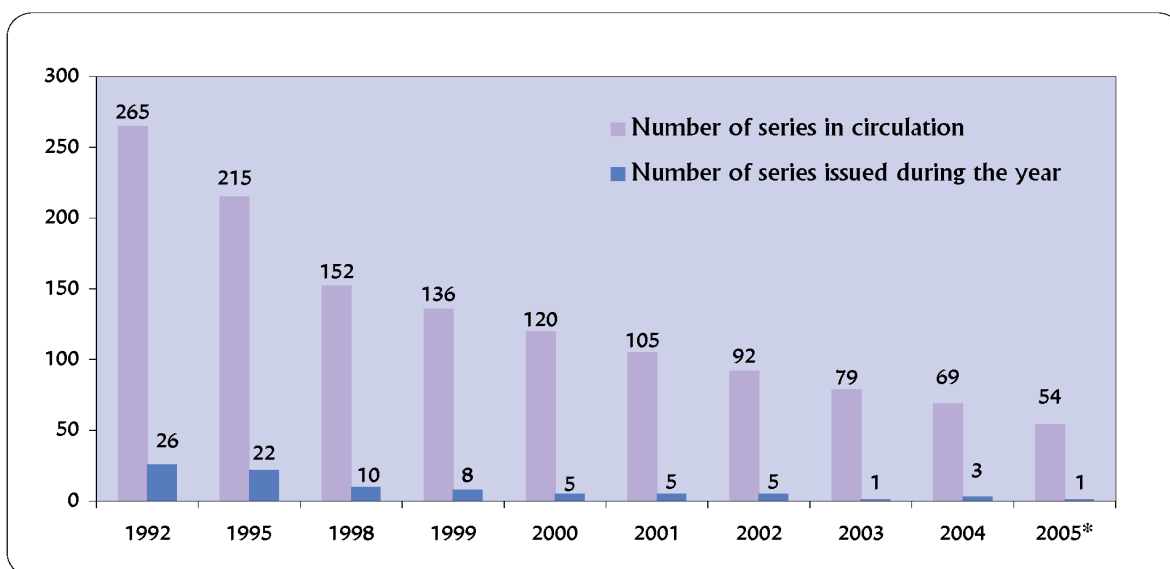
Size and Number of Series

As part of the effort to increase tradability and liquidity on the domestic bonds market, the Ministry of Finance has reduced the number of series while increasing their volume in recent years (see details in Section A).

In 2004, only three series were issued. Concurrently, 13 series reached maturity. Thus the decrease in traded series continued (as shown in Diagram C-5), and their number reached 69 at year end. In 2005, the Debt Management Unit plans to issue only one new series, and the number of series is expected to reach just 54 by the end of the year. The Unit intends to maintain a low number of issued series in the coming years as well so that trend of a decreasing number of series is expected to continue.

Debt Management and Deficit Financing

Diagram C-5: Number of tradable government bond series, 1992-2005



* Estimate

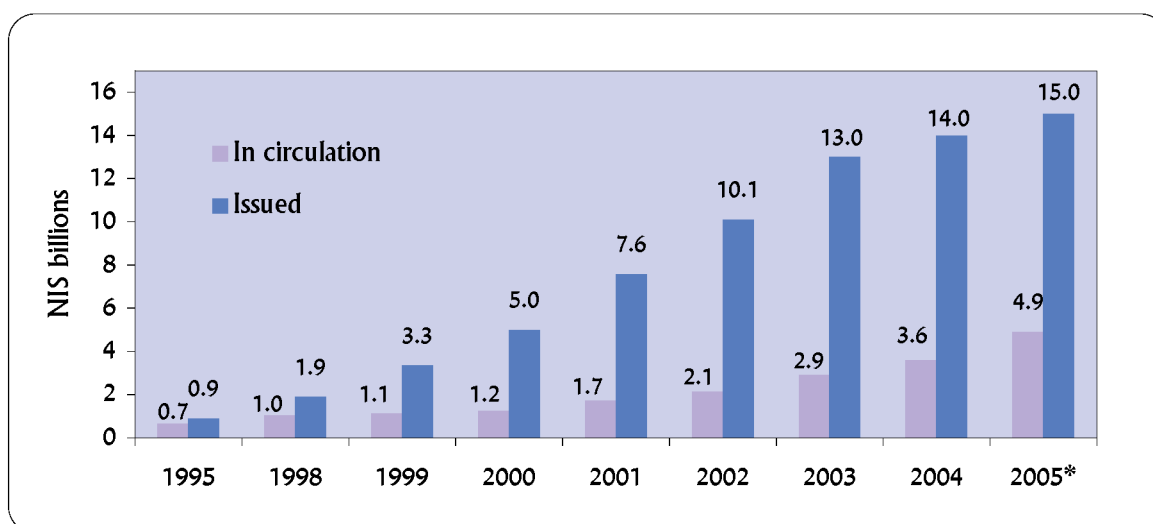
Source: Government Debt Management Unit, Ministry of Finance.

The trend of enlarging the volume of traded series through issues of large series continued in 2004. As shown in Diagram C-6, the average volume of issued series increased by 7.7 percent, to approximately NIS 14.0 billion. As a result, the average volume of the series in circulation increased by 24.1 percent, to NIS 3.6 billion. Creating strictly larger series, concurrently with the continuing redemption of small series, will cause this trend to continue. By the end of 2005, an additional increase is expected in the volume of traded series, to NIS 4.9 billion, and the volume of issued series is expected to reach approximately NIS 15 billion. The Debt Management Unit will continue to issue series at a cumulative volume of NIS 15-20 billion.

Section c

Debt Management and Deficit Financing

Diagram C-6: Average size of series⁸, 1995-2005



* Estimate

Source: Government Debt Management Unit, Ministry of Finance

2. Nontradable Debt

Table C-5 presents the composition of nontradable debt in 1999-2004. Unlike previous years, in which the weight of Miron type bonds in the total nontradable debt rose moderately, the trend reversed in 2004, due to the complete cessation of issues of these bonds. Conversely, Arad type bonds, issued to "new" pension funds, recorded an increase in weight again this year, although no new bonds were issued. The reason is that no Arad type bonds reached maturity this year⁹, in contrast to Miron type bonds, in which the volume of redemptions stood at approximately NIS 5.3 billion in 2004.

⁸ The average size of issued series refers only to those series issued during the period in question, while the average size of series in circulation refers to all traded series both series issued and series not issued during that period.

⁹ The first redemption of an Arad type bond is expected only in 2010.

Debt Management and Deficit Financing

Table C-5: Distribution of nontradable debt by type, 1999-2004
(Percent)

	1999	2000	2001	2002	2003	2004
Total (in NIS billions)	145.4	141.9	148.4	161.0	160.8	156.2
Pension:						
Miron	58	63	65	66	66	65
Arad	2	4	5	6	8	9
Other	-	-	-	-	-	-
Insurance:						
Chetz	21	20	19	19	19	19
Miscellaneous ⁽¹⁾	19	13	11	9	7	7

(1) Including various loans, deposits, and emissions managed by the Ministry of Finance.
Source: Bank of Israel.

Average Term to Maturity

The average term to maturity of overall government debt (Table C-6) contracted by 0.1 years in 2004, reaching 6.8 years at year end. The shortened term of government debt stems from a sharp decrease in the term of domestic debt (from 6.6 to 6.2 years), as a result of the low volume of domestic funding and the complete cessation of nontradable bond issues to pension funds, which are characterized by long original terms to maturity. The average term to maturity of external debt continued to grow for the second consecutive year, due to the issue of bonds backed by the United States government, at a long original term to maturity (20 years).

Table C-6: Average term to maturity of government debt, 1999-2004 (in years)

	1999	2000	2001	2002	2003	2004
Domestic debt	6.3	6.2	6.5	6.6	6.6	6.2
Of which: Tradable	4.5	4.5	5.1	5.4	5.5	5.3
Nontradable	8.7	8.6	8.5	8.3	8.2	7.7
External debt	7.6	7.1	6.8	6.5	8.0	8.6
Total government debt	6.6	6.5	6.6	6.6	6.9	6.8

Source: Bank of Israel.

Section c

Debt Management and Deficit Financing

C. External Debt

At the end of 2004, the government's external debt stood at approximately \$31 billion, or 25% of total government debt. The external debt of the State of Israel, like the domestic debt, is sub-divided into tradable and nontradable debt.

The tradable part of the external debt is composed of two types:

1. Bonds issued with guarantees by the United States government, with a total balance of \$14.8 billion at the end of 2004.
2. Bonds issued on global markets without guarantees ('unguaranteed issues'), at a total balance of \$3.3 billion at the end of 2004.

In 1995-2004, nine unguaranteed issues were carried out in the United States, Europe, and Japan. In 2004, one tradable non-guaranteed global issue was carried out, at a volume of \$500 million. As noted, this is the second largest, lowest spread issue since 2000. In addition, two issues backed by United States government guarantees were carried out, at volumes of \$1 billion and \$750 million. Tables C-7 and C-8 detail the various parameters of the unguaranteed and United States government guaranteed issues carried out by the Ministry of Finance abroad over recent years.

Table C-7: Unguaranteed issues in global financial markets, 1995-2004⁽¹⁾

Year	market	Amount in millions in original currency	Yield (percent)	Term to maturity in years	Interest to investors (percent) – coupon	Benchmark interest (BM) – government bonds ⁽²⁾	Spread from BM at issue date (bp)	Spread from BM on Dec. 28, 2004 (bp)	Spread from SWAP curve on Dec. 28, 2004 (bp)
1995	Yankee	\$250	6.491	10	6.375	USA	76 ⁽³⁾	37	35
1996	European	\$200	6.469	5	6.375	USA	-	-	-
1997	Samurai	¥20,000	3.017	10	3.0	Japan	-	-	-
1998	Yankee	\$250	7.313	30	7.25	USA	210	120	91
1999	European	€400	4.91	7	4.75	France	95	52	43
2000	Global	\$500	7.820	10	7.75	USA	135	100	60
2002	European	€400	5.983	7	5.875	Germany	123	60	42
2003	Global	\$750	4.731	10	4.625	USA	153	92	61
2004	Global	\$500	5.2	10	5.125	USA	115	100	63

(1) All issues are of fixed-coupon bearing bonds.

(2) Benchmark – a bond used as the criterion for yield comparisons.

(3) Basis point (bp) – one hundredth of one percent.

Source: Government Debt Management Unit, Ministry of Finance.

Debt Management and Deficit Financing

Table C-8: Issues backed by United States government guarantees, 2003-2004⁽¹⁾

Issue date	Amount in USD millions	Period (years)	Interest to investors (percent) coupon	Sole underwriter	Yield (price)	Spread from 30-year US government bond on issue date (basis points)	Commission for guarantee to the AID
September 2003	450\$	30	5.5	Barclays Capital	5.5790% (98.8557106)	38	8.27%
September 2003	1150\$	20	5.5	Merrill Lynch	5.5299% (99.6409187)	33	7.00%
December 2003	750\$	20	5.5	Lehman Brothers	5.5199% (99.7608157)	63	4.96%
April 2004	1,000\$	20	5.5	Lehman Brothers	5.5331% (99.60259342)	31	5.10%
October 2004	750\$	20	5.125	Merrill Lynch	5.159% (99.57891005)	29	3.90%

Source: Government Debt Management Unit, Ministry of Finance.

⁽¹⁾ All issues are of fixed-coupon bearing bonds.

The nontradable part of the debt is mainly composed of nontradable bonds issued over the years to individuals, companies, and institutional entities through the State of Israel Bonds Organization. The debt in Israel Bonds Organization securities stood at a total of \$10 billion at the end of 2004. The remainder of nontradable debt stems from bonds to foreign governments, international institutions, and foreign banks, totalling \$2.8 billion at the end of 2004.

Main Features of the External Debt

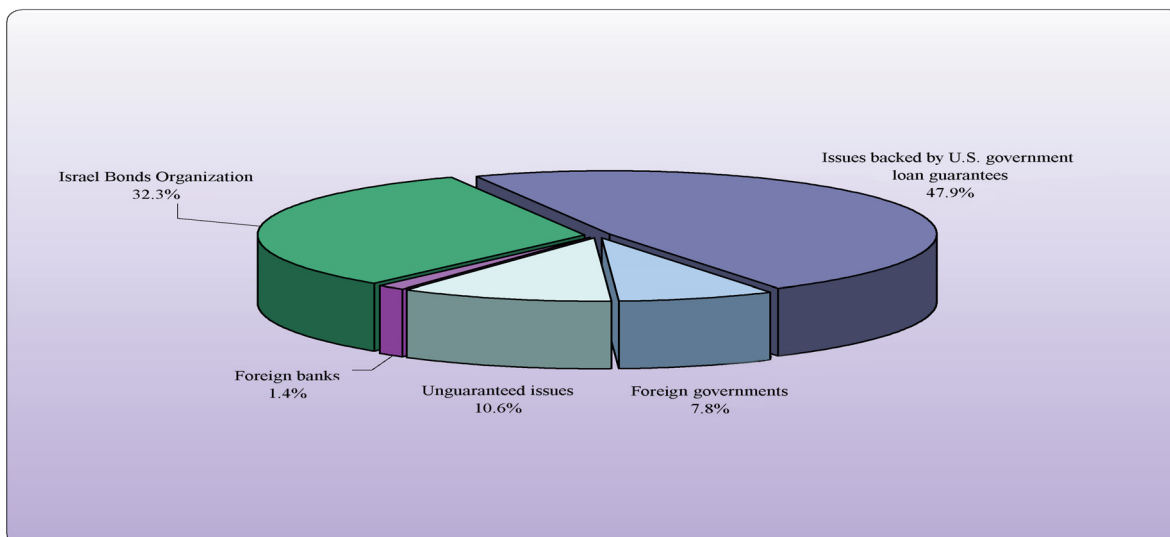
Other than the relatively low share of external debt in total government debt, Israel's external debt has the following additional characteristics:

The high share of Israel Bonds Organization securities and issues guaranteed by the U.S. government in total external debt – at the end of 2004, securities issued through the Israel Bonds Organization and issues guaranteed by the U.S. government constituted 80.2 percent of total external debt. These bonds benefit from better financing terms. Bonds issued by the Israel Bonds Organization are not tradable, so that their sensitivity to volatility in international capital markets is low. These bonds comprised 32.3 percent of total external debt at the end of 2004. Loans backed by U.S. government guarantees benefit from preferential terms (low interest), since their credit rating is similar to that of the United States government (AAA/Aaa), which is higher than the Israeli government's credit rating (A2/A-). At the end of 2004, these bonds comprised 47.9 percent of total external debt (see Diagram C-7).

Section c

Debt Management and Deficit Financing

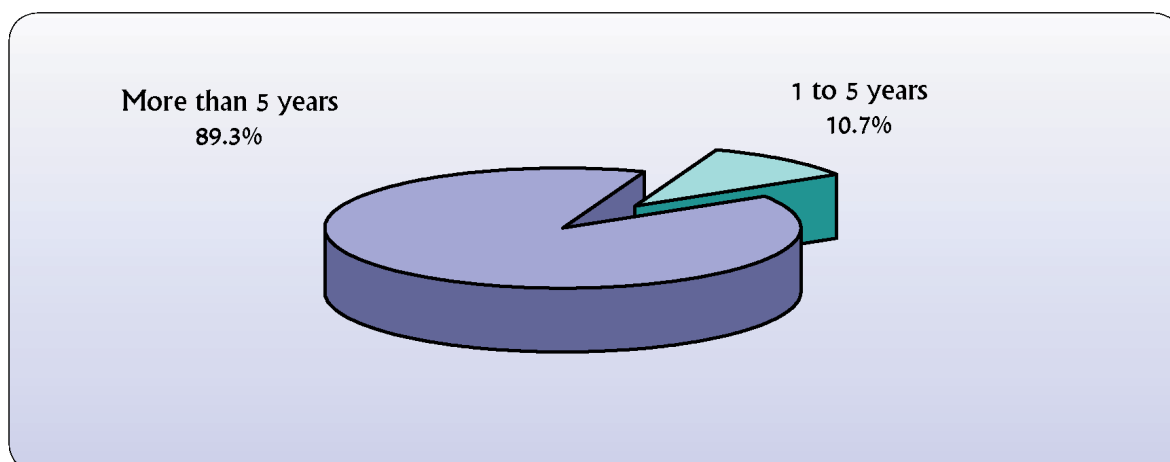
Diagram C-7: Composition of external debt by source of debt
(As at December 31, 2004)



Source: Bank of Israel.

Long term to maturity – external funding by the Israeli government is characterized by a relatively long term to maturity. At the end of 2004, the share of debt at an original term to maturity greater than 5 years was 89.3 percent. A long-term debt structure contributes to the government's financial stability.

Diagram C-8: Composition of external debt by original duration of debt
(As at December 31, 2004)

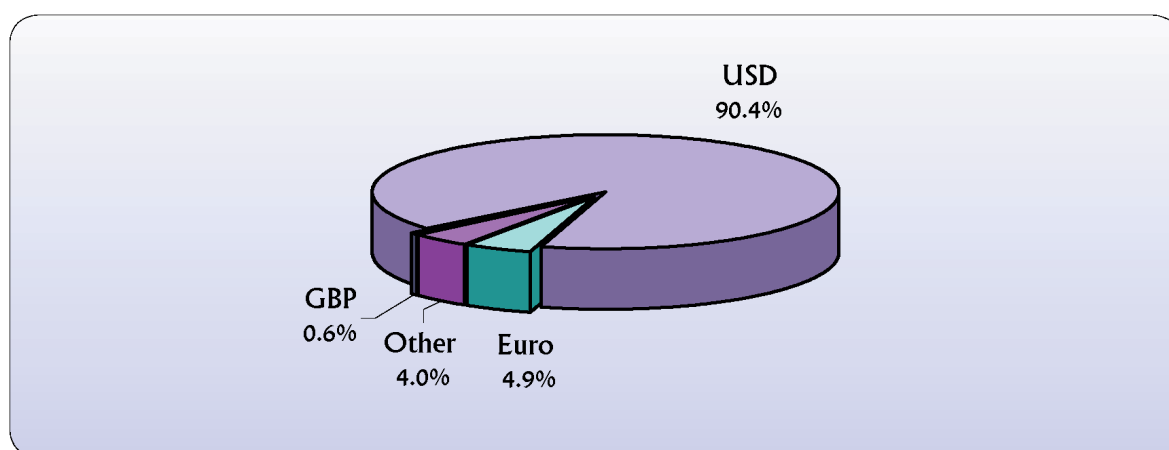


Source: Bank of Israel.

Debt Management and Deficit Financing

High rate of debt denominated in U.S. dollars – at the end of 2004, the share of the Israeli government's external debt denominated in U.S. dollars was 90.4 percent of the total external debt. This is mainly due to the high share of debt backed by the United States government in total external debt, as well as American investors' dominance in the acquisition of securities issued through the Israel Bonds Organization. In recent years, the Debt Management Unit has been acting to diversify the debt structure in terms of currencies.

Diagram C-9: Composition of external debt by currencies
(As at December 31, 2004)



Source: Bank of Israel.

2. The Government Deficit and Financing Needs in 2004

Government expenditures totaled NIS 201.3 billion in 2004, while government revenues totaled NIS 183.5 billion. As a result, the government's deficit, including credit, stood at NIS 17.8 billion¹⁰. The volume of privatization this year was approximately one billion NIS, and the cash reserves at the Central Bank grew by NIS 3 billion. Thus the volume of financing required of the Government Debt Unit stood at approximately NIS 19.8 billion.

¹⁰

This year, the volume of credit repayments was greater than the volume of new government credit; thus the government deficit excluding credit was NIS 20.4 billion, higher than the gross deficit.

Section c

Debt Management and Deficit Financing

Table C-9: Financing of the government deficit in 2004
(in NIS billions)

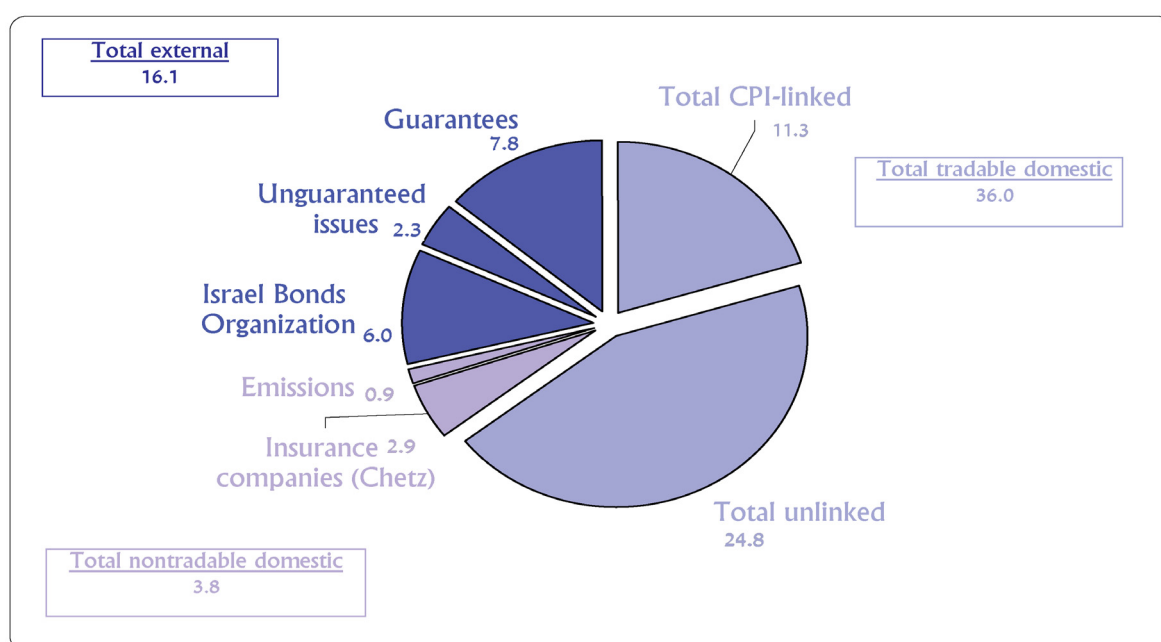
	Budget law	Actual execution
Revenues	187.9	183.5
Expenditures and credit granted	208.9	201.3
Total deficit (including credit granted)	21.0	17.8
Total financing	21.0	17.8
Net capital income (privatization)	2.6	1.0
Change in reserves	0.0	-3.0
Funding Requirement	18.4	19.8
External issuance (net)	8.6	7.8
Issuance	22.5	18.4
Of which: conversion of old guaranteed deposits		2.2
Redemptions	13.9	10.6
Domestic issuance (net)	9.8	12.0
Issuance	40.5	39.8
Redemptions	30.7	27.8

Source: Accountant General Division, Ministry of Finance

3. Government Funding

Funding by the government is divided into funding in Israel and abroad. The division into different funding channels is presented in Diagram C-10.

Diagram C-10: Distribution of funding in different channels in 2004
(in NIS billions)



Source: Government Debt Management Unit, Ministry of Finance

This chapter will describe government funding in 2004, in the domestic market and abroad, in both tradable and nontradable instruments.

D. Domestic Funding

■ Tradable Funding

Tradable domestic funding needs diminished in 2004, relative to the preceding years, to a total of NIS 36.0 billion. Tradable domestic funding through unlinked (fixed-coupon) Shahr type bonds totaled NIS 15.9 billion, funding through unlinked (floating interest) New Gilon type bonds totaled NIS 8.9 billion, and funding through CPI-linked Galil type bonds totaled NIS 11.3 billion.

Section c

Debt Management and Deficit Financing

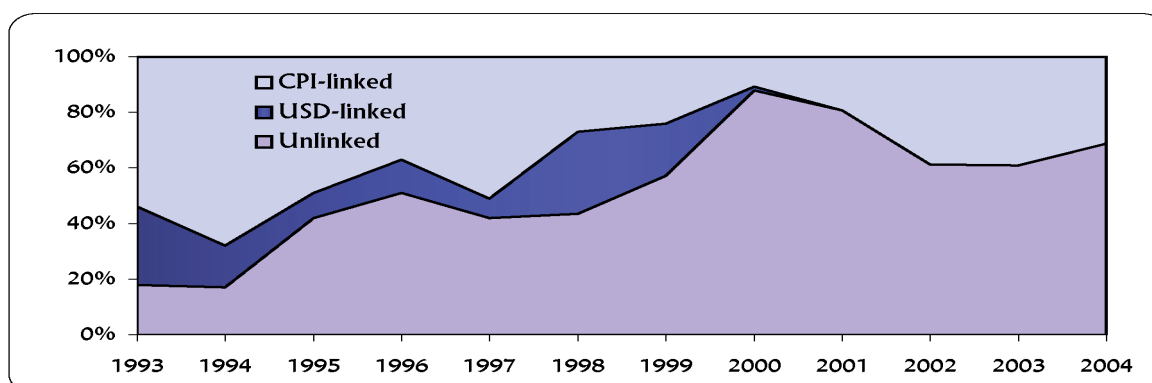
Diagram C-10: Principal funding and redemptions in the tradable bonds market in 2004

Linkage type	Issuance		Redemptions		Net funding
	In NIS millions	In % of total	In NIS millions	In % of total	In NIS millions
Shahar	15,857	44.0	3,800	21.9	12,057
New Gilon	8,914	24.7	0	0	8,914
Total unlinked	24,771	68.7	3,800	21.9	20,971
Galil	11,269	31.3	6,951	40.1	4,318
New Kfir	0	0	1,163	6.7	-1,163
Total CPI-linked	11,269	31.3	8,114	46.8	3,155
Gilboa	0	0	5,431	31.3	-5,431
Total foreign currency-linked	0	0	5,431	31.3	-5,431
Total	36,039	100	17,345	100	18,695

Source: Bank of Israel.

The share of unlinked Shahar and New Gilon type bonds in total tradable funding increased in 2004, to 68.7 percent, versus 61.0 percent in 2003. A particularly sharp increase was recorded in the weight of New Gilon type bonds, which reached 24.7 percent, versus just 19.1 percent in 2003. Concurrently, the weight of Galil type bonds in total tradable funding decreased to 31.3 percent, versus 39.0 percent in 2003. These changes in the composition of funding are the result, among other causes, of relative funding costs that reflected investors' preference for unlinked instruments, mainly FRNs.

Diagram C-11: Distribution of tradable domestic funding in different channels, 1993-2004
(Percent)



Source: Government Debt Management Unit, Ministry of Finance

Debt Management and Deficit Financing

■ Nontradable Funding

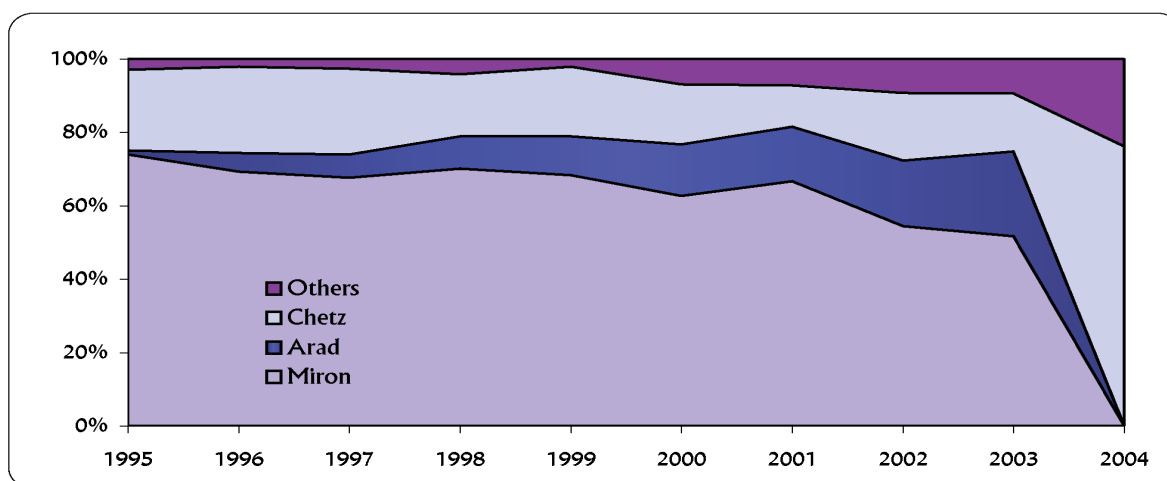
No Miron or Arad type bonds were issued in 2004, due to the implementation of the pension funds reform. In the coming years, only new, relatively small funds with high growth rates will be able to comply with the condition for issues of nontradable bonds, which is a less than 30 percent share of nontradable bonds in their asset portfolio. Thus the volume of funding through nontradable bond issues to pension funds (Arad type bonds) can be expected to be negligible. Issues of Chetz type CPI-linked bonds to insurance companies increased by 36.7 percent this year, to NIS 2.9 billion, due to roll-overs of large redemptions during the year, while the volume of funding through deposits with the Accountant General decreased by 27.3 percent this year, to NIS 0.9 billion.

Table C-11: Principal funding and redemptions of nontradable debt in 2004

Funding instrument	Issuance		Redemptions		Net funding
	In NIS millions	In percent	In NIS millions	In percent	In NIS millions
Miron	0	0	5,269	51.3	-5,269
Arad	0	0	0	0	0
Chetz	2,873	76.2	2,879	28.0	-6
Other	899	23.8	2,132	20.7	-1,233
Total	3,772	100	10,280	100.0	-6,508

Source: Bank of Israel and processing by the Debt Management Unit.

Diagram C-12: Composition of nontradable funding in 1995-2004



Source: Bank of Israel



Section c

Debt Management and Deficit Financing

E. External Funding

■ Funding by the Government Abroad

Non-Guaranteed Public Issues

In February 2004, the Israeli government issued a ten-year dollar bond at a volume of \$500 million and at a yield spread of 1.15 percent (115 basis points) over the relevant U.S. government bond. This is the lowest spread achieved by Israel for a similar issue in recent years, and some 40 basis points lower than Israel's previous issue in June 2003. The issue was led by Citigroup and UBS, which received the mandate for the issue in January 2004. The timing of the issue was selected following the low interest rates in the U.S. (which serve as the benchmark rate). Additional factors reinforcing the decision to proceed with the issue at the selected timing were initial positive indicators of the economy's emergence from the recession, the tight spreads in the secondary market for bonds issued by Israel in 2003, indicating market demand for Israeli government bonds, and the U.S. government's loan guarantee program, which supported the sense that the Israeli economy was stable and that Israel was issuing on global markets for benchmark reasons rather than due to urgent financing needs.

It should also be noted that the first two months of 2004 were marked by a wave of issues by many countries, including Mexico, Turkey, Italy, Venezuela, Brazil, Colombia, Panama, and Chile – some similar to Israel and some even weaker in terms of credit rating and the offered spread.

The starting point for the bond's pricing, naturally, was the level of spreads in the secondary market for Israel's last issue on the financial markets – the issue from June 2003, which at the time was trading at a spread of approximately 100 basis points over the relevant U.S. government bond.

The order book included 72 investors, of which 38 were "new" investors not included in the order book in June 2003. In terms of geographical distribution, 64 percent of the bond buyers at the issue were from the United States, and the remainder were from Europe (29 percent) and Asia (7 percent).

In terms of the types of investors that acquired bonds in the issue, 58 percent were portfolio managers, 34 percent were banks, 7 percent were pension funds, and the remainder were insurance companies.

Public Issues Backed by U.S. Government Guarantees

Two 20-year issues at a total volume of \$1,750 million were carried out in 2004. Over the past year no deductions were made from the loan guarantee framework, in contrast to 2003, when the United States government deducted \$289.5 million from the guarantee framework due to the government's civilian investments in the Territories. Thus the remaining framework for realization in 2005-2008 is \$4,610.5 million. A scoring fee for the guarantee is paid to the Federal Agency for International Development (A.I.D.), which guarantees the bond issues, out of the proceeds of the issue. The fee amounted to \$80.25 million this year. Note that in the last issue (in October 2004), the commission was



Debt Management and Deficit Financing

significantly lower than in previous issues, at 3.9 percent of gross issuance for 20 years, versus previous commissions of 8.27 percent for 30 years, and rates of 7 percent, 4.96 percent, and 5.1 percent paid in September 2003, December 2003, and April 2004, respectively, for twenty-year issues. The guarantees were issued through a competitive bid among the 14 largest global investment houses. In this issuance method, each bank submits a proposal for the acquisition of all the bonds issued, and the bank that submits the proposal in which the yield to the issuer is lowest acquires the entire quantity of bonds offered in the bid.

In the first issue, Barclays Capital won the bonds issued for thirty years, and Merrill Lynch won the twenty-year bonds. Lehman Brothers won the second and third issues, and the fourth issue was again won by Merrill Lynch.

The issues were carried out through a designated website constructed for that purpose at the Ministry of Finance. The website was open to participants for 15 minutes, until the bid closed. After approval by the A.I.D., the results were presented to the winner and to the other banks within several minutes.

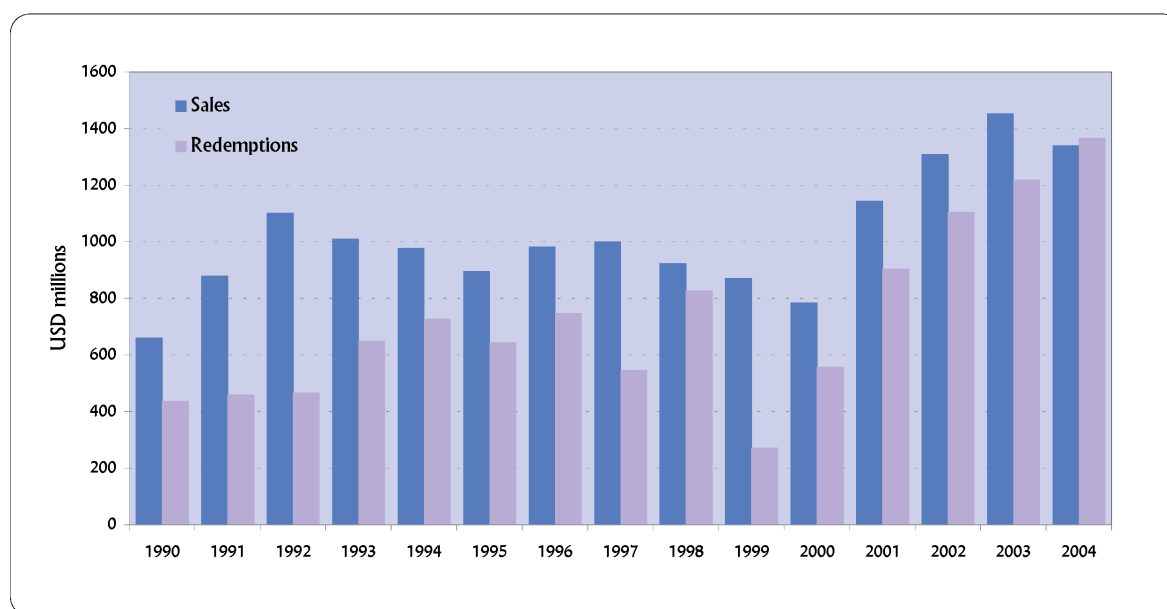
Summary of Funding by the State of Israel Bonds Organization in 2004

The Bonds Organization raised a total of \$1,341 million for the State of Israel in 2004. This funding volume is slightly lower than in 2003 (\$1,454 million), but slightly higher than in 2002 (\$1,310 million). The amount raised in 2004 is 5 percent higher than the funding target set by the Accountant General at the beginning of the year (\$1,250 million). Net funding through the Bonds Organization totaled a negative \$26 million in 2004, indicating equality between the volume of sales and the volume of redemptions. Note that such a case of negative net funding has not occurred since at least 1990, and is related to the directive conveyed to the Organization not to roll over all debt, but instead to try to adhere to the established funding target.

Section c

Debt Management and Deficit Financing

Diagram C-13: Israel Bonds Organization sale and redemption volumes, 1990-2004



Source: Government Debt Management Unit, Ministry of Finance; and Foreign Currency Department, Bank of Israel.

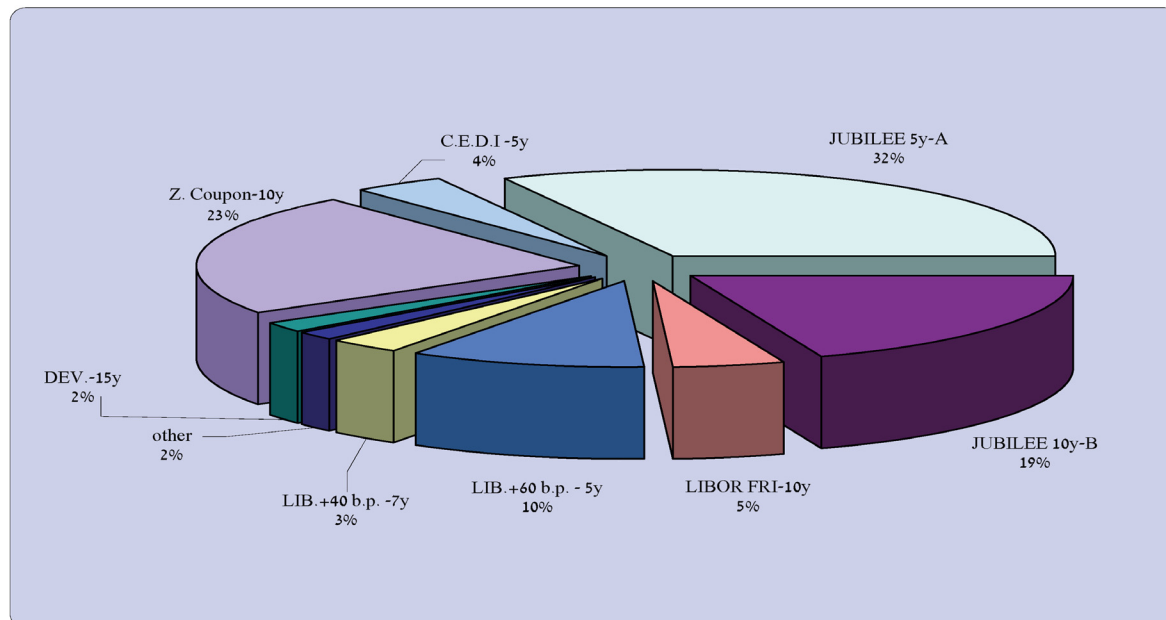
Approximately 82 percent of the Organization's funding in 2004 was carried out using fixed-coupon instruments. This distribution is understandable in light of the low short-term interest rates in the markets during 2004. For comparison, recall that in 2003 (which was marked by still lower interest rates) the distribution was even more dramatic, with some 89 percent of funding at fixed coupon. Note that a resurgence in sales of floating-interest instruments occurred in the last quarter of 2004, as a direct result of the increase in the LIBOR rate.

Israel Bonds securities – the share of Jubilee bonds (fixed rate semi-annual coupon) with a 5 and 10 year term to maturity in the Organization's total sales in 2004 comprised approximately 52 percent. The share of 5-year bonds was 32 percent (versus 39 percent in 2003), and the share of 10-year bonds was 19 percent of total sales (versus 27 percent in 2003). Despite the impressive dominance of these bonds in overall sales, it is notable that their popularity decreased considerably as compared to 2003; this was mainly expressed in their weight in total sales in the second half of 2004, especially with regard to 10-year bonds, whose weight decreased by 34 percent compared to 2003. Reasons were relatively low fixed interest rates (lower than spreads of unguaranteed bonds on the secondary market during most of the year), and an increase in the benchmark interest rate during 2004. Zero-coupon 10-year dollar-denominated bonds drew brisk demand

Debt Management and Deficit Financing

in 2004, raising their volume of sales by 32 percent; their weight in the Organization's total sales was 23 percent (versus just 16 percent in 2003). Note that sales of the 5-year zero-coupon dollar bond were recorded only in January and February this year. Due to the global weakening of the American dollar, instruments denominated in Canadian dollars enjoyed brisk demand in 2004: sales of Canadian 5-year zero-coupon bonds increased by 24 percent compared to 2003, and sales of bonds linked to the Canadian Prime rate increased by 155 percent. An exception among the Canadian instruments was the zero-coupon 10-year bond, whose sales decreased by 28 percent. 5.4 percent of the Organization's sales in 2004 were in Canadian currency (versus 4.7 percent in 2003). An impressive resurgence was also recorded in sales of notes: sales of notes at an interest rate of LIBOR + 40 basis points increased by 64 percent, sales of notes at an interest rate of LIBOR + 60 basis points increased by 33 percent, and sales of notes at an interest rate of LIBOR + 75 basis points increased by 43 percent, compared to 2003. The weight of the aforesaid three notes stood at approximately 18 percent in 2004 (versus 11 percent in 2003).

Diagram C-14: Distribution of Israel Bonds Organization sales by securities in 2004



Source: Government Debt Management Unit, Ministry of Finance

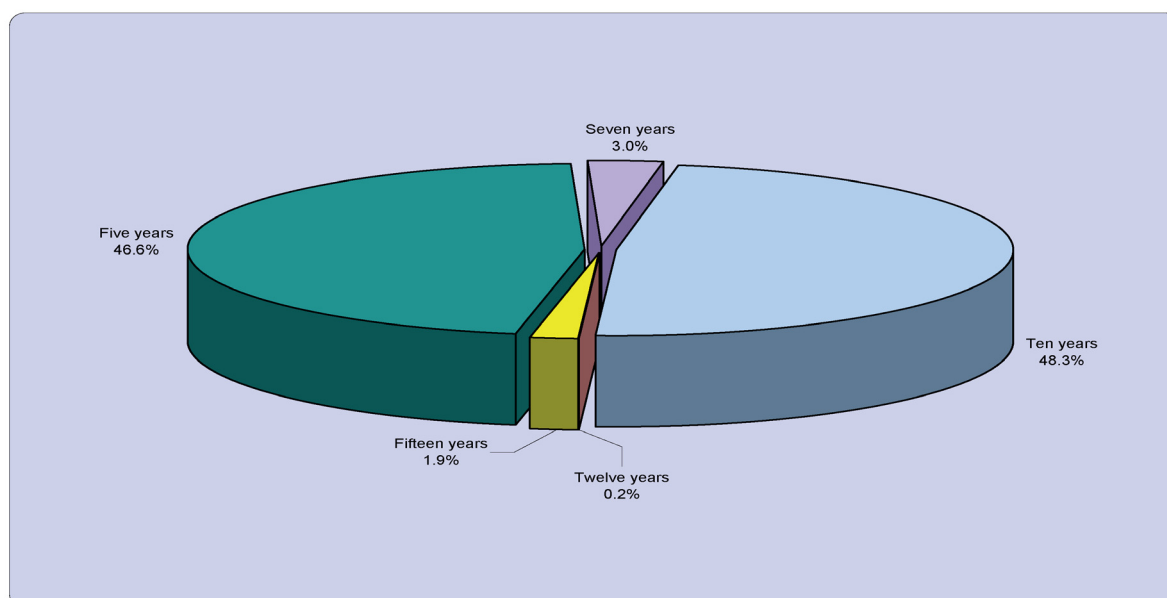
Section c

Debt Management and Deficit Financing

Currency distribution – 94.5 percent of the Organization's total sales are in U.S. dollars. The remainder of sales are in Canadian dollars (5.4 percent) and GBP (0.16 percent).

Distribution of instruments by terms to maturity – 47 percent of the Organization's total sales were of instruments maturing in 5 years, while 48 percent were of instruments maturing in 10 years.

Diagram C-15: Distribution of Israel Bonds Organization sales by term to maturity in 2004



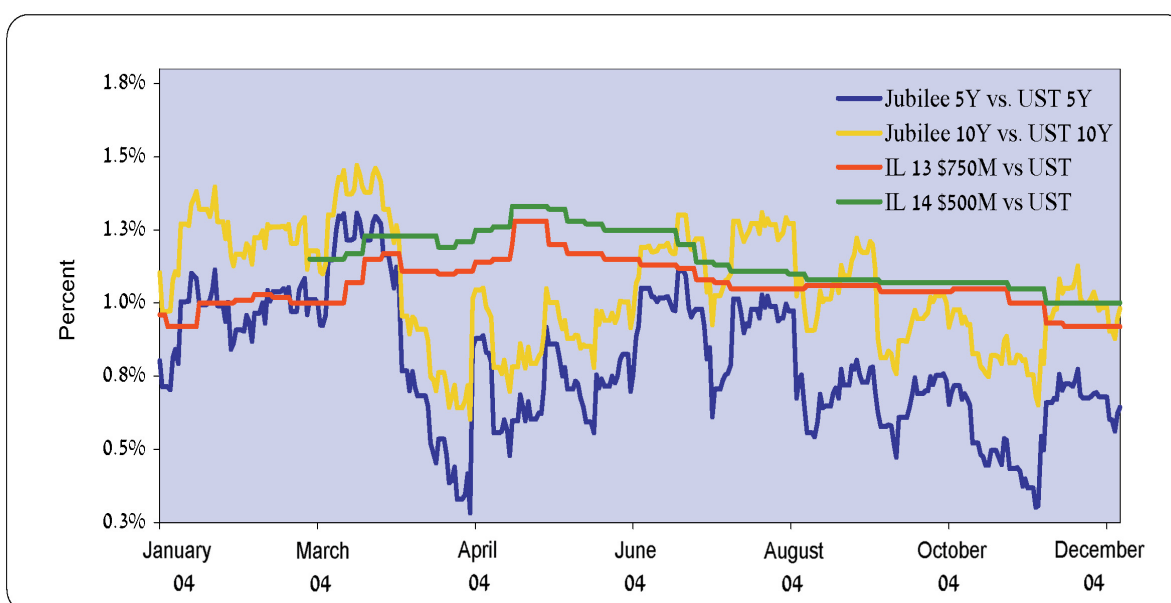
Source: Government Debt Management Unit, Ministry of Finance

Developments in spread – in the first two months of the year, the ten-year Jubilee bond was sold at an average spread of 122 basis points over the TB10y, and the five-year bond had an average spread of 96 bp over the TB5y. These spreads were more attractive than those of unguaranteed bonds (9.5-year term to maturity, redemption in 2013, \$750M), which totaled 99 bp on average; this accounts for the large volume of sales during these months. At the end of February, Israel issued a new \$500 million unguaranteed bond, maturing in 2014, at a spread of 115 bp over the TB10y. From March to June, the spreads of Organization instruments decreased, so that the ten-year Jubilee bond sold at an average spread of 99 bp over the TB10y, and the five-year bond sold at an average daily spread of 80 bp over the TB5y. These spreads were less attractive than those of unguaranteed bonds, which reached an average of 124 bp, thus

Debt Management and Deficit Financing

naturally reducing the volume of sales. From July to December, the spreads of Organization instruments increased slightly for ten-year Jubilee bonds, which sold at an average spread of 103 basis points over the TB10y, and decreased slightly for five-year bonds, which sold at an average spread of 73 bp over the TB5y. These spreads remained less attractive than those of unguaranteed bonds, which reached an average of 109 bp, and continued to contribute to a more moderate volume of sales.

Diagram C-16: Developments in the spread of 5- and 10-year Jubilee bonds, compared to spreads of unguaranteed issues on the secondary market



Source: Government Debt Management Unit, Ministry of Finance

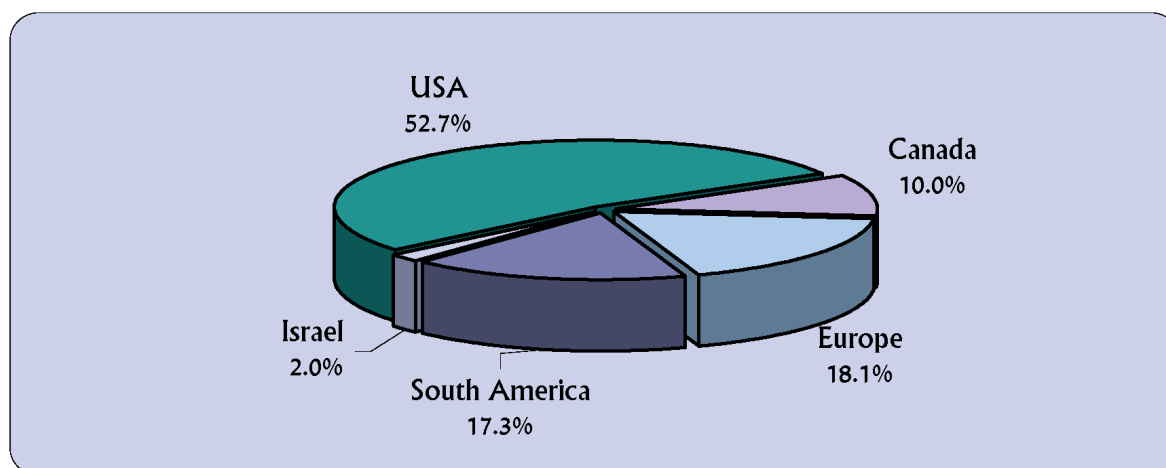
Geographical distribution – sales in the United States remained dominant in 2004: 53 percent of total sales were carried out in the United States, 18 percent in Europe, 17 percent in Latin America, and 10 percent in Canada. The geographical distribution did not change materially in comparison to 2003.

The Israel Bonds Organization sold \$25 million in bonds and notes in Israel in 2004 (2 percent of total sales). For comparison, note that during the same period in the previous year, approximately \$42 million in bonds and notes were sold in Israel.

Section c

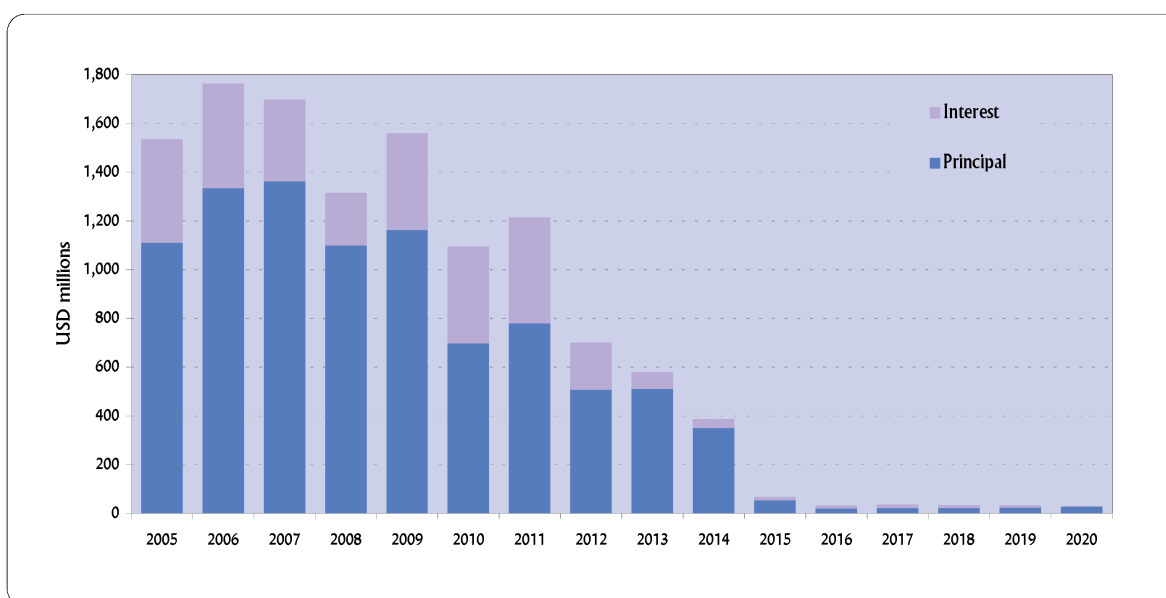
Debt Management and Deficit Financing

Diagram C-17: Geographical distribution of Israel Bonds Organization sales in 2004



Source: Government Debt Management Unit, Ministry of Finance

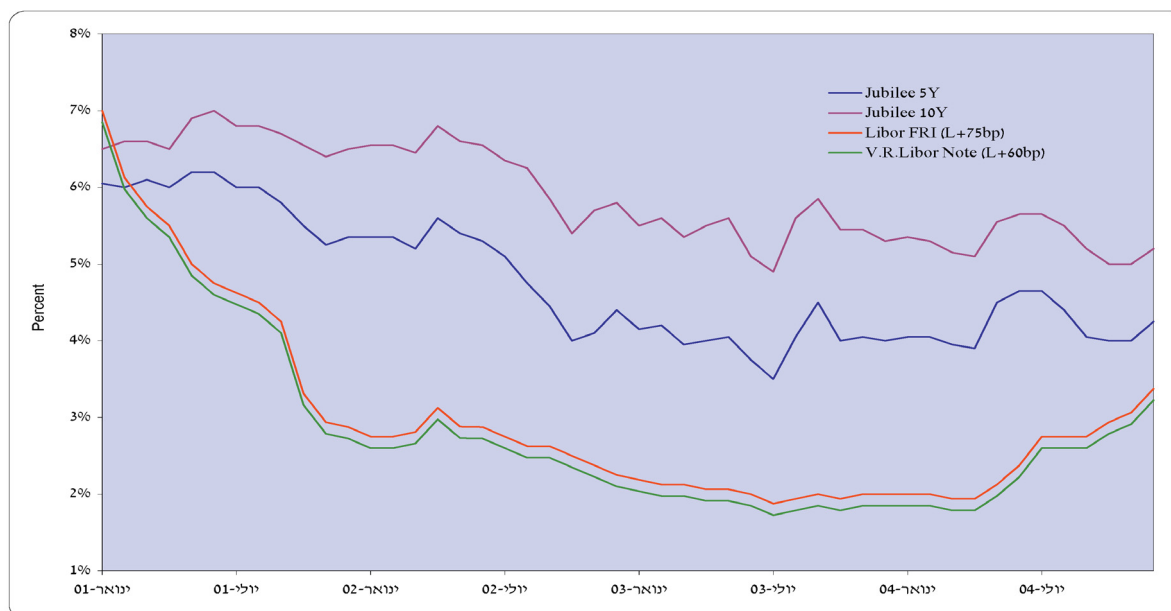
Diagram C-18: Principal redemptions and interest payments on Israel Bonds Organization securities



Source: Government Debt Management Unit, Ministry of Finance

Debt Management and Deficit Financing

Diagram C-19: Developments in yield to investors in selected Israel Bonds Organization securities



Source: Government Debt Management Unit, Ministry of Finance



Section D

Reform in the Government Bonds Market

Over the last years, the Ministry of Finance has implemented an extensive array of reforms aimed at streamlining public expenditures and increasing competition in the economy. The background for this policy is the recognition that there is an inverse relationship between public expenditure and growth in Israel. Today it is clear that without a significant and consistent reduction of the burden of public expenditure on the GDP in Israel, it will not be possible to lower the tax burden and release resources to encourage growth of the business sector. Furthermore, it appears that most of the gap between GDP in Israel and the average per capita GDP common in Western countries stems from the excess weight of public expenditure in the GDP in Israel, as well as the lack of sophistication and competition in many economic sectors.

Yet, the reforms have hitherto applied only to some 80 percent of the State budget. A sizable and significant segment of approximately NIS 35 billion in interest expenses has remained without fundamental treatment. Against this background, the importance of implementing the Primary Dealers reform has progressively increased. This reform has been adopted in many countries worldwide, and studies show that it has led to significant reductions in government funding costs, decreases in long-term interest rates, increased competition, transparency, and financial stability, and active participation of foreign investors in domestic markets.

In early January 2005, the Knesset unanimously passed Amendment No. 14 to the State Loan Law. The amendment, initiated by the Debt Management Unit of the Accountant General Division, constitutes the basis for a comprehensive reform in the bonds market, to be implemented during 2005-2006. The bonds market reform is the product of extensive work at the headquarters level, which began in 2001 with the establishment of an inter-agency committee to examine market making on the Tel Aviv Stock Exchange (TASE). The committee conducted in-depth discussions of the implementation of market making in government bonds as well as in other securities, and submitted its recommendations on this matter at the end of 2002. The model subsequently proposed by the Government Debt Management Unit (and approved by the Knesset) implements the key points of the recommendations⁽¹¹⁾.

1. The Primary Market

A. The Primary Market Today

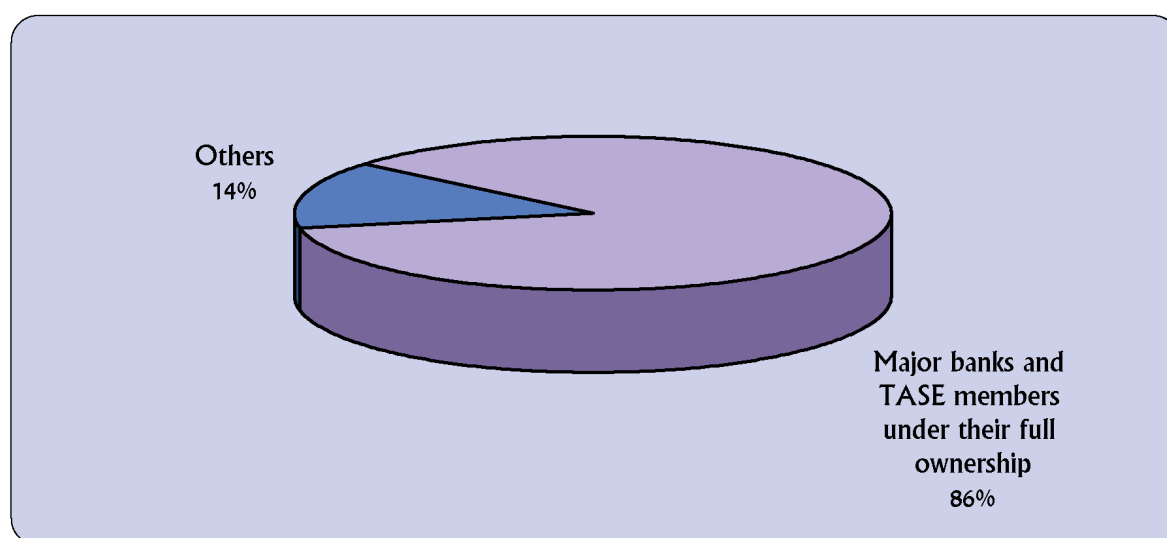
The government bonds market, like many capital market sectors, suffers from a high level of concentration, which impairs its functioning, almost entirely prevents the entry of international entities, and leads to relatively high funding costs for the government. Despite the fact that in addition to all members of the TASE and banks, since 1994, mutual funds, insurance companies, provident funds, and pension funds have been allowed to participate in government bond auctions, these institutional entities do not take advantage of the possibility; the number of actual participants in auctions is low,

⁽¹¹⁾ The committee's report is available on the Israel Securities Authority's website (www.isa.gov.il).

Reform in the Government Bonds Market

reaching an average of 18 in 2004, all of which were TASE members (banks and brokers). Furthermore, an examination of the distribution of purchases in tenders for Shahar type bonds in 2004 shows that 95 percent of the quantity was sold to only twelve participants (similar to the previous year), most of which were banks, and 86 percent were sold to the six largest banks and to their fully-owned brokers.

Diagram D-1: Purchases by types of investors in auctions of Shahar type bonds in 2004 (percents)



Source: Government Debt Management Unit, Ministry of Finance

B. The Primary Market Following the Reform

Until Amendment 14 to the law was passed, all decisions concerning funding were made at the Ministry of Finance, while the actual issuance of loans was performed by the Monetary Department at the Bank of Israel. Following the amendment, tradable bond issues as well as nontradable bond issues to pension funds will be carried out by the Ministry of Finance.

The first two years of the reform's implementation are designated as a pilot period for the new system. In the first year, issues of FRNs, CPI-linked bonds, and some 20 percent of the quantity sold of unlinked fixed-coupon bonds will continue in a manner similar to that prior to implementation of the reform. Thus these auctions will be open to banks, TASE members, mutual funds, insurance companies, provident funds, and pension funds. Approximately 80 percent of unlinked fixed-coupon bonds, which in 2004 comprised just 40 percent of the government's domestic funding, will be sold in separate auctions to Primary Dealers.



Section D

Reform in the Government Bonds Market

Box D-1: Primary Dealers

Primary Dealers are large, stable financial institutions that will commit to quoting buy and sell prices for large series of government bonds, in a new trading system which is to be established, for several hours daily, at predetermined spreads. This activity is expected to bring about a significant increase in turnovers of government bonds, reduce the liquidity premium for bond holders, attract investors to the government bonds market, and reduce the government's funding costs. Primary Dealers will commit to a minimum volume of activity in government bond auctions (a volume of bond purchases over the year). In return, they will have the benefit of access to designated bond sale auctions. Further, Primary Dealers will enjoy the option of an additional allocation at the average price of the auction, on the day following the auction (at a predetermined volume), priority in financial transactions carried out by the government in Israel and abroad, access to the repo facility being established by the Ministry of Finance, and exclusive access to the new designated trading system.

C. The New International Auction System

With the transfer of issues to the Debt Management Unit, the existing auction system will be replaced by the Bloomberg Bond Auction System (BAS). This issuance system is simple to operate, highly reliable, and functions successfully in a large number of countries, including Belgium, Ireland, and South Africa. The system will enable market makers to participate in government auctions from abroad as well, in a simple and transparent manner. Concurrently, since the company's communication terminals already operate at most of the entities that participate or are likely to participate directly in government bond auctions, the transition will not involve an added expense on their part. Furthermore, since Bloomberg is the world's leading analytical system (used by professional traders throughout the world for bond pricing), it is highly important that traders will now be able to price all Israeli government bonds using the system. The State of Israel will also obtain added value from Bloomberg's control over television stations, professional journals, and the organization of financial conferences, which will aid in marketing government bonds in particular, and the Israeli economy and capital market in general.

Any entity entitled to participate in an auction may contact the Debt Management Unit and request authorization to connect to the system. A few days before the auction, registered participants will be sent notification detailing the auction dates, series, quantities offered for sale, and the deadline for bids. Participants will submit the requested quantity of each bond at each price through their terminals. Participants are permitted to change their bids, without limit, until the deadline. The last bid submitted by each participant by the deadline is binding.

The background of the top section of the page is a close-up, slightly blurred image of numerous US coins, including pennies, nickels, and quarters, scattered together.

Reform in the Government Bonds Market

Auctions will be managed as they were hitherto, using a graded (“discriminatory”) auction system: immediately after the deadline for submitting bids, the auction will close to further bids and the system will allocate bonds based on the prices offered, from the highest price to the lowest price, until all the bonds on offer are sold. The closing price is the price obtained at the point at which the full offered quantity is sold. All participants who offer a price higher than the closing price receive all the bonds they requested, and each bidder pays the prices bid in the auction. In case of surplus demand at the closing price, a relative allocation of the remaining bonds will be carried out, according to the quantity requested by each participant at that price. At the end of the auction, each participant will receive details of its winning bids as well as general data about the results of the tender, such as the quantity sold, average price, closing price, etc. A summary of the auction results will also be released to the public on the Debt Management Unit’s website, the Bloomberg trading system, and other financial information systems. An additional allocation of bonds will be carried out for Primary Dealers on the day following the auction, in which auction winners will be able to purchase an additional 15 percent of the amount (in face value) they purchased in the auction, at the auction’s average price. This process is aimed at providing participants with an incentive to bid more aggressively in auctions, thereby reducing the government’s funding costs. The additional allocation will also be carried out using the Bloomberg system, via a designated module which also operates successfully in other countries.

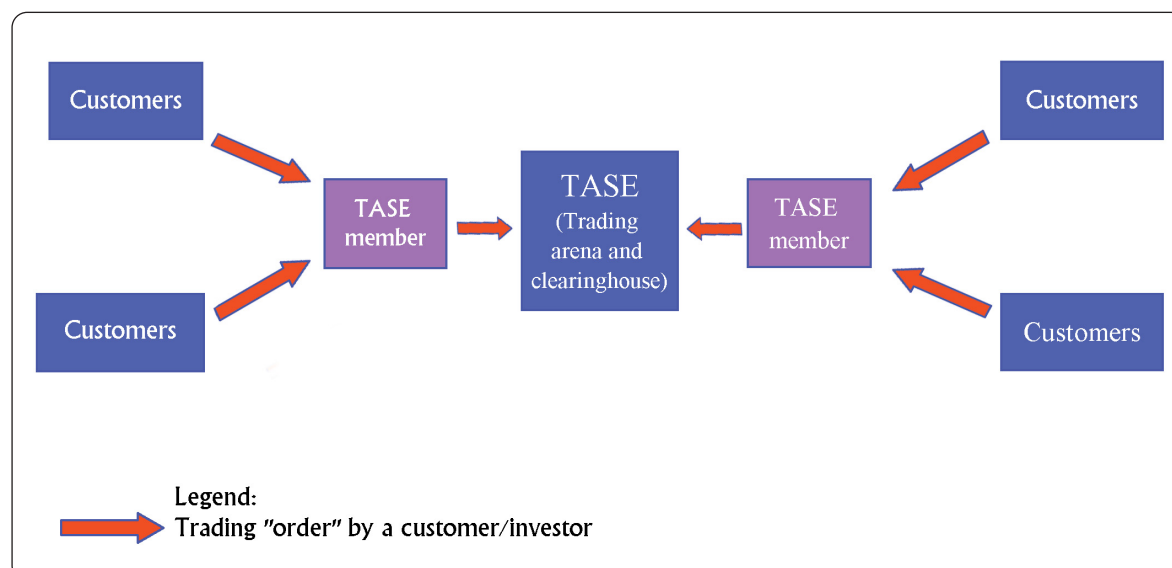
Section D

Reform in the Government Bonds Market

2. The Secondary Market

Currently, trading in government bonds is chiefly carried out on the Tel Aviv Stock Exchange. Investors send buy and sell orders through TASE members, and transactions are cleared by the Tel Aviv Clearinghouse (TACH). Following implementation of the reform, bond trading is expected to be not only far broader in volume, but also more diverse in terms of various trading arenas.

Diagram D-2: Current structure of the government bonds market



Upon the launch of the Primary Dealers system, a new trading arena will begin operating – the Inter-Dealer System (IDS), in which Primary Dealers will be obligated to provide quotes on a regular basis. The system selected for trading among Primary Dealers is operated by EuroMTS, the leading European developer of inter-dealer trading infrastructures for government bonds. This system is in use in most European Union countries, including Italy, Germany, France, Spain, and others. The system operated in Israel will be called MTS-Israel.

The system will also allow two-way trading; i.e., Israeli traders and investors will be able to purchase bonds abroad via the same system.

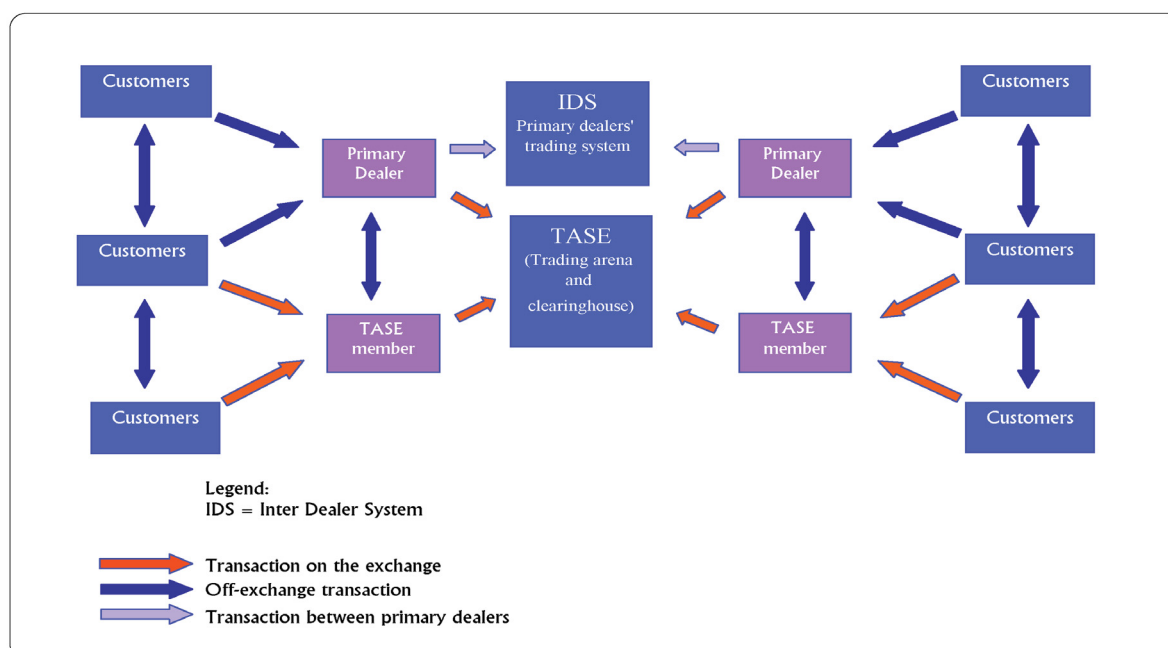
As with the Bloomberg system, the use of an international system which is already installed in many banks throughout Europe will facilitate and lower the cost of participation from abroad, and allow increased global exposure for Israeli bonds.

Reform in the Government Bonds Market

Bond Trading on the TASE

Experience elsewhere in the world indicates that a reform of this type increases turnover, not only in the new trading arenas, but on the stock exchange as well. The TASE will remain an important channel for trading between Primary Dealers and investors in general, and an increase in trading activity on the MTS system will make it easier for market operators to price bonds and reduce uncertainty. As noted, this assessment is supported by evidence from other countries – trading volumes have increased considerably in markets in which Primary Dealers were introduced. Further, the reform is encouraging foreign banks to become Stock Exchange members (Deutsche Bank, HSBC, etc.), an important trend for the development of the domestic stock market and capital market. In addition, the TASE is permitted to appoint market makers on the stock exchange. These will be TASE members committed to providing quotes on the stock exchange, in accordance with the recommendations of the committee on market making on the TASE (the Hauser Committee). The TASE will establish the conditions for the activity of stock exchange market makers in its internal regulations. In addition to the compensation these market makers receive from the TASE (such as reduced commissions), they will also be compensated by the Ministry of Finance; for example, through bond auctions in which they participate through a non-competitive allocation mechanism ("green-shoe"), similar to the mechanism to be offered to Primary Dealers.

Diagram D-3: Structure of the government bonds market after the reform





Section D

Reform in the Government Bonds Market

The Bonds Repo Mechanism for Primary Dealers

Primary Dealers will be obligated to quote buying and selling prices of bonds continuously, over time. This exposes them to a risk at times of insufficient liquidity in the market, due to the fact that there is no liquid repo market in Israel in which market makers can borrow bonds when necessary.

Since there is no active repo market in Israel as yet, a decision was made to establish a repo facility for Primary Dealers, in order to assist them in complying with their quoting commitments. The facility will be implemented as a collaboration between the Ministry of Finance and the TASE Clearinghouse, which will operate it based on rules to be determined by the Ministry of Finance. A primary dealer needing a bond will borrow it; in exchange, it will transfer cash (for which it will receive interest) as collateral. It is hoped that the existence of the facility for the use of Primary Dealers will serve as an incentive to the development of an active repo market, concurrently with the removal of the economic and legal barriers which are delaying it. If an active, liquid repo market does develop, it may be possible to gradually phase out the repo facility.

In 2005, the Debt Management Unit, together with the Ministry of Justice, the Bank of Israel, the Capital Market Division, and the Israel Securities Authority, is working to promote the legislation of the Financial Transactions Law, a new law dealing with repo transactions, which would enable the development of this essential market in Israel, as well as with the status of other futures and derivative transactions in the inter-bank market, which require the possibility of netting between opposite transactions. The law would define, among other things, the legal status of the asset, and would clarify the issue of its ownership in cases in which one of the parties enters a process of liquidation or bankruptcy during the transaction. A liquid repo market will assist in the development of a non-bank credit market, thereby lowering financing costs in the business sector. The law is also intended to resolve the uncertainty which exists today regarding the legal status of ISDA and ISMA master agreements.



Reform in the Government Bonds Market

Box D-2: Roles of the TASE in the Government Bonds Market After the Reform

The TASE hitherto had exclusivity in the trading and clearing of government bonds. Although this exclusivity will end as a result of the reform, the TASE will continue to fulfill many important roles in the area of government bonds after the reform. In particular, the TASE will do the following:

1. Operate the TACT (Tel Aviv Continuous Trading) Bonds system – a computerized, transparent, order-driven trading arena for buy and sell orders of any size. Even after the launch of the MTS-Israel system, some 75%-80% of bonds are expected to be traded on the TASE only.*
2. Exclusively control settlement of all transactions carried out in Israel and abroad, including OTC transactions.
3. Execute all principal and interest payments of tradable domestic debt (as a fiscal agent).
4. Operate the new repo facility on behalf of the Ministry of Finance – a market with tremendous growth potential (in the United States, the repo market is four times larger than the market for government bonds – the underlying asset – and the same is true in other countries as well).
5. Provide technical and logistical support for the MTS-Israel system, including dissemination of trading data to commercial data vendors.
6. Provide central counter party (CCP) services in transactions executed on the MTS - Israel system.
7. Collect market makers' reports on OTC transactions, on behalf of the Ministry of Finance, and distribute the information to the public.
8. Launch and trade derivatives (futures, options) of government bonds.
9. Establish rules and supervise TASE members that are "market makers in government bonds on the TASE".
10. Advise the Debt Management Unit at the Ministry of Finance on various matters related to trading in government bonds.

* Makams issued by the Bank of Israel will also be traded on this system.



Section D

Reform in the Government Bonds Market

3. Benefits of the Reform

The advantages of the proposed reform may be summarized as follows:

- **Increased turnovers** – despite an increase of some 1,000 percent in turnovers over the last decade, the government bonds market is still far from maximizing its potential (for example, in South Africa the ratio of the annual trading volume to the debt is approximately 50, while in Israel it is less than 1). We therefore believe that the volume of trading may increase by hundreds of percent in the coming years, subsequent to the reform.
- **Large savings in funding costs for the government and the private sector** – the reform will increase competition in the primary market and tradability in the secondary market. As a result, the government's funding costs are expected to decrease, along with the funding costs of the business sector and the interest rates paid by households.
- **Globalization and upgrading of the financial markets** – the introduction of foreign financial entities and the transition to issuance and trading via international electronic systems will deepen the integration of the domestic bonds market, and the capital market in general, with the international markets.
- **Reduced concentration** – the entry of large international financial entities into the primary and secondary markets will decrease the current high rate of concentration, in the government bonds market in particular, and in the capital market in general.
- **A trigger for expansion of the activity of foreign banks and institutional investors in the Israeli capital market** – international financial entities that operate as Primary Dealers can be expected not to be involved only in activity in the government bonds market, but to operate in other sectors of the capital market as well. Thus, the reform in the government bonds market is a complementary measure in line with other actions taken by the Ministry of Finance to enhance the sophistication of the Israeli capital market⁽¹²⁾.
- **Larger base of investors in government bonds** – with the equalization of taxation on capital gains and interest payments for foreign and domestic investments, some redirection of investments by local investors (private and institutional) from the domestic government bonds market to foreign capital markets is expected. The government therefore needs to widen the base of investors and expand the activity of foreigners on the domestic government bonds market. The entry of globally deployed financial entities undertaking a commitment to continuous activity in the Israeli capital market will facilitate the distribution of Israeli government bonds to institutional and private investors abroad, to whom access is currently limited, thereby widening the circle of investors in government bonds.
- **Transparency of large bonds transactions** – the transition to a designated bond trading system will increase "market depth" and transparency, particularly with regard to large transactions, which are currently executed primarily by telephone, and are therefore not transparent.

(12) In fact, Deutsche Bank and HSBC have recently joined the TASE, and additional foreign international banks are similarly considering membership in the TASE and in the Clearinghouse. Furthermore, the international investment bank Bear Stearns has recently joined the insurance company Migdal in the ownership of the TASE member Migdal Capital Markets.



Reform in the Government Bonds Market

- **Adoption of international standards** – the reform includes the adoption of international standards of trading and clearing, in which Israel lags significantly behind accepted practices elsewhere in the world.
- **Development of new financial instruments** – the activity of knowledgeable, experienced Primary Dealers will aid the development of financial instruments that do not currently exist in the Israeli capital market, such as swap contracts, repos, bond futures, Commercial Papers, etc.

4. Changes in State Loans Regulations

As part of the reform in the bonds market, the Debt Management Unit is working to standardize issued bonds and to simplify the bond structure to the extent possible, as is common practice worldwide. Within this framework, the Debt Management Unit intends to amend the State Loans Regulations that refer to the currently issued series, and institute regulations for new series. It should be emphasized that the change in the existing loan regulations will not have a negative affect on the terms of the existing bonds or their holders.

The following are the main differences between the existing regulations and the regulations for the new series:

1. **Change in the names of bonds** – bond names (such as 'Shahar', 'New Gilon', and 'Galil') will be replaced with names that indicate the bond's qualities: linkage and coupon type, interest rate, and redemption date, as is common practice elsewhere in the world.
2. **Early redemption** – following the amendment to the law, which enables the government to offer the public early redemption, the new regulations will allow the same. It should be emphasized that this does not refer to unilateral redemption by the government, but to the government's ability to offer early redemption to bond holders, based on debt management considerations and in order to reduce funding costs.
3. **Uniform issuance terms for all bonds** – currently there are different possible durations for funding in different bonds. In order to create uniformity between the different bonds, it is proposed that all bonds be issued for a period of two years or more.
4. **Cancellation of items related to taxation of bonds** – in the old bonds, the regulations referred to the taxation of interest payments given to bond holders. The entire issue of interest taxation is currently regulated under Income Tax regulations; thus there is no need to refer to the matter in these regulations.
5. **Change in definition of the ex-date** – in the existing regulations, the ex-date (the entitlement date) is defined as between 5 and 30 days before the date of the interest payment or bond redemption. In practice, the period has been shortened

Reform in the Government Bonds Market

6. **Possibility of bond issues between the ex-date and the date of payment** – according to some of the existing regulations, it is not possible to issue new bonds during the period between the ex-date and the date of payment. There will be no such limitation under the new regulations.
7. **Definition of the sale of bonds as defined in Amendment No. 14 to the Law** – bonds will be sold to Primary Dealers and the general public. Sales to the general public will be performed through banks, TASE members, and additional entities approved by the Accountant General at the Ministry of Finance.
8. **Non-payment of interest and/or principal on time** – the old regulations made no reference to the possibility that for technical reasons, it might not be possible to pay interest and/or principal payments on time. Therefore, an item regulating this matter was included in the new regulations.
9. **Possibility of issuance for an original duration that is not a round number of years** – dynamic, efficient management of the government debt occasionally requires issues of series for original durations that are not whole years; the current regulations do not allow this. The new regulations are formulated such that it will be possible to issue for original durations that are not whole years.
10. **Cancellation of loan certificate issuance** – in light of the amendment to the law, which includes the cancellation of the physical issuance of loan certificates, as was the practice in the past, formats of loan certificates were removed from the new regulations (cancellation of the first addendum to the existing regulations), as were references thereto.
11. **Change in the underlying asset of floating-interest bonds** – the underlying asset for floating-interest government bonds, based on which the periodic interest is determined, has been changed from the existing underlying asset for New Gilon type bonds, and will now be the Makam series with the term to maturity closest to one year. In New Gilon type bonds, the underlying asset is the average yield of Makam series with terms to maturity of three months to one year. This change will simplify the new bond and facilitate risk hedging for capital market operators, since they will be looking at a specific bond, rather than an average of yields, which is difficult to hedge.
12. **Simplification of the procedure for determining the interest in linked bonds** – the existing mechanism for determining the interest rate in Galil type bonds is cumbersome, and has not achieved the goal of issuing the bonds at a price closest to 100 ("par"); thus a mechanism was established that is identical to the practice for fixed-coupon bonds (Shahar type).



Reform in the Government Bonds Market

13. **Full, two-way linkage for CPI-linked bonds** – linkage in Galil type bonds is partial, as it compensates the holder for the increase in the Consumer Price Index since the series was first issued, whereas no linkage is carried out when the CPI decreases. This makes the bond's pricing difficult in certain cases, creates distortions, and unnecessarily increases the government's interest payments. Therefore, under the proposed regulations, CPI-linked bonds will have full two-way linkage.

The following are the main changes to the existing regulations:

1. **Adjustment of sections detailing the procedure for sales** – Amendment No. 14 to the Law states that bonds will be sold to Primary Dealers and to the general public. Sales to the general public will be carried out through banks, TASE members, and additional entities approved by the Accountant General at the Ministry of Finance. It is therefore necessary to amend Section 5 of the State Loans Regulations (Shahar Type Series) and of the State Loans Regulations (New Gilon Type Series), as well as Section 3 of the State Loans Regulations (Galil Type Series), and to cancel Section 13 of the State Loans Regulations (Shahar type series) and of the State Loans Regulations (New Gilon Type Series), and Section 14 of the State Loans Regulations (Galil Type Series), which detail the procedure for sales as required under Amendment No. 14 to the Law.
2. **Early redemption** – subsequent to the amendment to the law, which permits offering early redemption to the public, it is proposed that the possibility stated in the regulations be permitted. It should be emphasized that this does not refer to unilateral redemption by the government, but to the government's ability to offer early redemption to bond holders, based on debt management considerations and in order to reduce funding costs.
3. **Cancellation of the first addendum** – in light of the amendment to the law, which includes the cancellation of the physical issuance of loan certificates (Section 3(4) of the law), as was the practice in the past, the format of the loan certificate (the first addendum) should be removed from the existing regulations, as well as references to it in other sections – Section 6 of the State Loans Regulations (Shahar Type Series) and of the State Loans Regulations (New Gilon Type Series), and Section 4 of the State Loans Regulations (Galil Type Series). In addition, in Section 5 of the State Loans Regulations (Galil Type Series) and in Section 7(E) of the State Loans Regulations (New Gilon Type Series), the words "the second addendum" will be replaced with the words "the first addendum".



Section D

Reform in the Government Bonds Market

5. Transfer of the Domestic Debt Administration from the Bank of Israel to the Ministry of Finance

Following the amendment to the State Loan Law, responsibility for the operation of all aspects of domestic government debt which were hitherto performed by the Bank of Israel were transferred to the Government Debt Management Unit in the Accountant General Division. For this purpose, the Unit will establish three operational units during 2005:

- A. The issuance unit – to carry out all tradable bond auctions, both to Primary Dealers and to the general public.
- B. The trading control unit – to supervise trading on the MTS-Israel system, the designated system for Primary Dealers, and the repo facility to be operated by the Tel Aviv Clearing House.
- C. The back-office unit – to manage all money transfers, manage all records related to bonds, carry out all principal and interest payments in respect of government bonds (both tradable and nontradable), and manage allocations and transfers of nontradable bonds to pension funds.

6. Initial Results and Achievements of the Reform

During the period since the reform's approval by the Knesset, the initial positive results of the reform are evident:

- **Growing interest among international banks and foreign investors** – in recent months, in light of the estimate that the reform will be implemented, foreign investors and banks likely to become Primary Dealers have become increasingly interested in the bonds market. This interest has already generated benefits in the form of increased turnovers and decreased yields. Note that towards the end of the first half of 2005, daily turnovers of over NIS 1.5 billion were recorded in government bonds.
- **New members joining the TASE** – the impending implementation of the reform is one of the key factors that motivated the international banks HSBC and Deutsche Bank to join the Tel Aviv Stock Exchange as members. It is likely that other global banks will follow in their footsteps, including some that might choose to operate as remote members from London.
- **Intra-organizational deployment** – as part of the preparation for the reform, banks are reinforcing their dealing rooms, training personnel, and preparing for more sophisticated and intensive management of risks and positions than they were accustomed to in the past.



Reform in the Government Bonds Market

- **Strategic collaborations between domestic and foreign entities** – the reform provides an incentive for strategic collaborations between international financial entities, which have financial capital, experience in market making and global deployment, and domestic entities, which are familiar with the local market, particularly with institutional investors, and therefore have a natural advantage in marketing and distribution. This collaboration is expected to expand beyond the field of government bond trading into additional areas of the capital market. Since the approval of the reform, collaborations of this kind are being considered and negotiated.

Box D-3: Future contracts on nominal bonds – monetary or physical settlement

An important type of financial instrument that is in use in global capital markets, but does not exist in Israel thus far, is future contracts on government bonds. Futures enhance the sophistication of the market, increase liquidity, and greatly facilitate taking short positions. In 2004, the Tel Aviv Stock Exchange submitted a request to the Minister of Finance to launch a future contract whose underlying asset is the average yield of several bonds (a sort of representative rate). This method is known as "cash settlement".

The TASE claimed that cash settlement of futures is preferable, since it is easier to implement from the computing point of view, and since Israeli investors are already familiar with it from trading in TA-25 (Maof) options. The TASE further claimed that physical settlement of bond futures is based on historical grounds. As evidence, the TASE presented the decision of the derivatives exchanges in Sydney, Bombay, and other Asian markets to launch futures with cash settlement rather than with physical settlement.

A survey conducted by the Ministry of Finance with all domestic and foreign banks, as well as with several leading institutional investors, indicates that they are not interested in the instrument proposed by the TASE, and prefer the instrument commonly used elsewhere in the world, in which the underlying asset is the bonds themselves. This method is known as "physical settlement".

Advantages of futures with physical settlement:

1. Encourages and contributes to liquidity in the bonds market, a goal which underlies the entire reform.
2. Commonly used (for government bonds) in all U.S. and European stock exchanges, both established exchanges and most new exchanges.
3. Preferred by all foreign banks that are candidates to become Primary Dealers, and by EuroMTS, the company establishing the new interdealer trading system.
4. Preferred by each of the dealing rooms of the Israeli banks, which will carry out most bond trading.
5. Preferred by leading financial entities.



Section D

Reform in the Government Bonds Market

Disadvantages of futures with cash settlement:

1. Futures with cash settlement will not be traded by foreign investors who are not tolerant of “non-standard” markets; attracting foreign investors is one of the key goals of the reform, and the proposed instrument may impede this goal.
2. Futures with cash settlement create unnecessary basis risks for market makers and institutional investors, due to the fact that there is no underlying asset but only an average (a sort of representative rate) that cannot be bought or sold.
3. Futures with cash settlement create an alternative parallel market disconnected from the Ministry of Finance’s bond issues, which under certain circumstances may raise the government’s funding costs.
4. Futures with cash settlement may impede the development of the repo market, since in the absence of the need to provide bonds, the need to carry out repo transactions also greatly diminishes.
5. Futures with cash settlement may cause excess volatility in the bonds market, as frequently occurs at the expiration of TA-25 equity index options.
6. Futures with cash settlement may cause a severe loss of trading from the TASE, just as occurred in the foreign currency market, in which a cash-settled future exists on the TASE but trading in it is marginal relative to the inter-bank (OTC) trade, in which settlement is physical.

The role of the Ministry of Finance is to ensure that the TASE, which has hitherto enjoyed exclusivity in the trading and clearing of government bonds, acts in the best interests of the majority of investors, traders and issuers and in particular the Ministry of Finance. The Ministry must also ensure that the TASE is adapting to the norms and standards accepted globally (globalization). Five years ago, the Ministry of Finance intervened in the TASE’s favor to allow dual-listing (listing of Israeli companies in Israel based on documents submitted abroad, mainly to NASDAQ and the SEC); the Ministry is now applying the same criteria to the issue of settlement of bond future contracts.



Section E

The State of Israel's Credit Rating

General

One of the important responsibilities of the Government Debt Management Unit is to maintain the relationship between the government and the international credit agencies which publish Israel's short and long term external and domestic credit ratings. The maintenance and, when possible, upgrading of the State's credit ratings is an objective which receives high priority not only within the Unit, but also at the highest levels of the Ministry.

Credit rating is used by investors (mainly institutional) as a tool to assess the risk inherent in their investments. Most institutional investors invest for medium to long periods, and expect a return that reflects the risk level of the entity to which they lend their money. Credit rating (in conjunction with other factors) provides an indication of the risk of their investment.

In determining a country's credit rating, rating agencies examine numerous parameters, which can be divided into several categories: political stability, fiscal stability, fiscal flexibility, monetary stability, and external stability. On each parameter, the country in question is compared to countries with similar ratings – the "peer group". Israel's peer group mainly includes medium-sized economies, most of which are peripheral European countries – Poland, Hungary, Greece, Cyprus, the Czech Republic, Estonia, Latvia, Lithuania, Slovakia, etc., as well as Chile, Hong Kong, South Africa, Korea, and Malaysia. It should be noted that the three major international credit rating agencies, Moody's, S&P, and Fitch, released highly favorable reports on the Israeli economy in 2004, in which they praised the economic policy, budget restraint, and structural reforms led by the Ministry of Finance.

The parameters that particularly concerned the three agencies were the budget deficit dynamic (including the degree of the government's commitment to attain the target) and the volume of public debt, which remains high in relative terms as compared to peer group countries.

On the other hand, the rating agencies were impressed with the strength and maturity demonstrated by the Israeli economy, which in conjunction with the well-organized economic agenda led by the government, showed successful resurgence and attained an impressive growth rate in 2004 (4.3 percent). In addition to growth data, the rating agencies were also impressed with the structural reforms; the trend reversal in the development of government debt, which began to decline in 2004; the stability in the balance of payments; and the improvement in geopolitical conditions (following the death of Yasser Arafat, the election of Abu-Mazen as Chairman of the Palestinian Authority in a democratic vote, the hope instilled by the Sharm Summit, and the disengagement plan). All of these, together with the United States' loan guarantee program, which continues to provide a "financial umbrella", provided a positive counterweight that was highly encouraging in the rating agencies' view.



The State of Israel's Credit Rating

The upgrade of the external debt outlook by S&P, the upgrade of the domestic debt outlook by Fitch, and the favorable reports released by all three agencies in 2004 constitute an official acknowledgment that Israel has left the recession period behind.

Following are the highlights of the reports released by the three agencies:

Fitch Ratings:

Fitch upgraded the outlook on Israel's long-term local currency rating from Negative to Stable and affirmed Israel's other current credit ratings.

The agency's report on the Israeli economy states that the upgraded outlook on Israel's local currency credit rating reflects a decline in Israel's public debt ratio in 2004 and better medium-term debt dynamics. Furthermore, demonstrable spending control and a political commitment to spending restraint and deficit limitation led Fitch to conclude that the debt ratio has at least stabilized and will probably trend down in the medium-term; this marks a significant turning point in Israel's public debt dynamics. Fitch was favorably impressed by the fact that the government has reduced spending by approximately 4 percent of the GDP since 2002 (excluding interest expenses), especially as the Israeli economy was still in recession in 2003. According to the agency, the fiscal restraint implemented contributed to the government's credibility, and still more so, constituted a decisive factor (even more than the growth rate) in reducing the debt ratio to below 105 percent of the GDP. Nonetheless, Fitch still believes that the budget targets remain relatively vulnerable to spending and revenue pressures, due to causes including the political uncertainty in Israel, which remains high.

Fitch predicts that Israel's debt ratio will at least remain stable. However, this ratio remains one of the highest in its peer group and a serious constraint on Israel's credit rating for the foreseeable future, as well as reducing fiscal flexibility. The agency also noted that Israel relies on external borrowing more than some of its peers, and this reliance is reflected in a relatively high external debt.

Fitch believes that Israel's fiscal strategy, and ultimately its creditworthiness, would benefit from a clearer, more aggressive medium-term deficit and debt reduction plan. The agency believes the plan should focus primarily on the public debt ratio, especially now that the economy has resumed growth. Although the government has shown itself willing and able to meet its spending targets, Fitch is concerned that the government's current deficit target, at approximately 5 percent of GDP by international definitions, may leave Israel's debt ratio at an elevated level for many years. Fitch projects Israel's debt ratio to remain above 100 percent of GDP until 2008, and to remain above its 2000 low point of 91 percent of GDP until the middle of the next decade. External indicators have remained stable or have improved since Fitch revised the outlook on Israel's long-term foreign currency rating from Negative to Stable in December 2003. However, a further upgrade in the credit rating or rating outlook will be contingent on a decisive reduction in the public debt ratio.



Section E

The State of Israel's Credit Rating

Moody's Investors Service:

Moody's report on the Israeli economy states that the economy has fully recovered from the recession of 2001-2002, and that this is particularly apparent in 2004, with a 4.3 percent growth rate and 6 percent growth in the business sector. According to the agency, the Israeli economy in 2004 is once again outperforming global weighted average growth trends, as it did for most of the 1980s and 1990s. The agency was impressed by the fact that Israel's current account was in surplus, the inflation rate was low, short-term interest rates remained low, and the real effective exchange rate depreciated by 20 percent in 2002-2004.

Moody's noted that for the first time in recent Israeli history, in 2004 the government succeeded in cutting public sector employment, and continued to pursue a very tough line in wage bargaining with public sector employees. The decline in wages in the overall economy contributed to reduced manufacturing costs; this together with increased productivity and exchange rate depreciation has given Israeli exports a strong, competitive boost.

Moody's stated that Israel benefited from the loan guarantee program it received from the United States, which embodies commitments of up to 3% of GDP government deficit and a maximum annual real increase in government expenditures of 1%. These "anchors" – along with the Ministry of Finance's ongoing comprehensive pro-market, pro-competition structural reform program – have had three consequences: 1) they have relieved pressures on domestic debt issuance and thereby contributed to lower interest rates; 2) lower interest rates have encouraged consumer expenditures; and 3) the "anchors" have encouraged the government (if any encouragement was needed) to continue its tough fiscal policies, sending a positive signal to capital markets, which have rallied. Moody's expects the Israeli economy to continue its positive performance, although a slowdown in the global economy will lead to slightly lower growth indicators, while inflation and interest rates may rise slightly. In the political sphere, Moody's is somewhat concerned that the government's stability is still unclear, and that it may be more difficult for the government to continue the reforms led by the Ministry of Finance in areas such as banking, the electricity sector, State-owned land, and the continued cutbacks of the public sector.

According to Moody's, the government has sought to raise market expectations of better economic performance through public sector cuts. A streamlined public sector would allow lower taxes, lower borrowing requirements, and lower interest rates; this would remove economic uncertainties and stimulate private consumption and investment, eventually producing more jobs and lowering income inequalities.



The State of Israel's Credit Rating

The agency noted that as a result of the structural reform programs and tight budget policies of the Ministry of Finance, the tax burden in Israel fell from 40.1 percent (in 2000) to 38.3 percent (in 2004). However, this burden is still high compared with the weighted average in OECD countries.

The deficit stood at 3.9 percent in 2004, with government debt at approximately 103 percent of the GDP, which is high compared to Israel's peer group. Israel's external liquidity position is comfortable, with foreign exchange reserves representing a multiple of debt service payments due.

Standard and Poor's:

Standard and Poor's revised the outlook on Israel's external credit rating from Negative to Stable, in response to the positive economic indicators and the fiscal restraint demonstrated by the government.

According to the agency, the revision of the outlook reflects the narrowing of the budget deficit in 2004, prospects for medium-term fiscal consolidation underpinned by the U.S. loan guarantee program, renewed economic growth, and a significant improvement in the balance-of-payments. At the same time, geopolitical risks have also stabilized, following a reduction in the level of violence, and the prospect of a new Palestinian leadership to reinvigorate the stalled peace process.

The agency noted that in 2004, fiscal outcomes were modestly better than those budgeted. Expenditure restraint and a stronger-than-anticipated recovery in economic growth enabled the government to meet its deficit target of 4% of GDP. At the same time, the general government debt-to-GDP ratio is forecast to stabilize at 108% of GDP. Few material changes to economic policy are expected, despite the inclusion of the Labor (Avoda) party in the governing coalition. Economic policy is underpinned by conditionality in the recently extended U.S. loan guarantee program, which runs until 2008. The program sets out a clear path of fiscal consolidation and structural reforms.

Growth prospects have improved, with the composition of growth more evenly balanced between exports and domestic demand. In 2005, real economic growth is expected to remain at almost 4.0%, reflecting strengthening external demand and a sharp recovery in private consumption and investment. Agreement by Palestinian groups to observe a ceasefire during forthcoming Palestinian Authority elections, coupled with a reduction in the number of terrorist incidents, underpin improvements in consumer confidence and a strengthening of domestic demand. Real GDP is forecast to expand by an average of slightly less than 4.0% annually in the next five years.

In conclusion, the agency's analysts noted that net foreign direct investments are projected to remain at a high level of 1.8 percent of GDP in 2004. At the same time, Israel's gross external financing requirement (current account deficit plus short-term debt, including long-term debt due within a year) is expected to remain comfortable, at 132% of reserves in 2005, down from 142% as recently as 2002.

Section E

The State of Israel's Credit Rating

Table E-1: Israel's Credit Rating According to the Three Rating Agencies

Rating agency		Rating of debt denominated in local currency	Rating outlook	Rating of debt denominated in foreign currency	Rating outlook
Moody's	Long-term	A2	Stable	A2	Stable
	Short-term	--	--	P1	Stable
Standard & Poor's	Long-term	A+	Stable	A-	Stable
	Short-term	A-1	Stable	A-1	Stable
Fitch	Long-term	A	Stable	A-	Stable
	Short-term	--	--	F1	Stable

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Section F

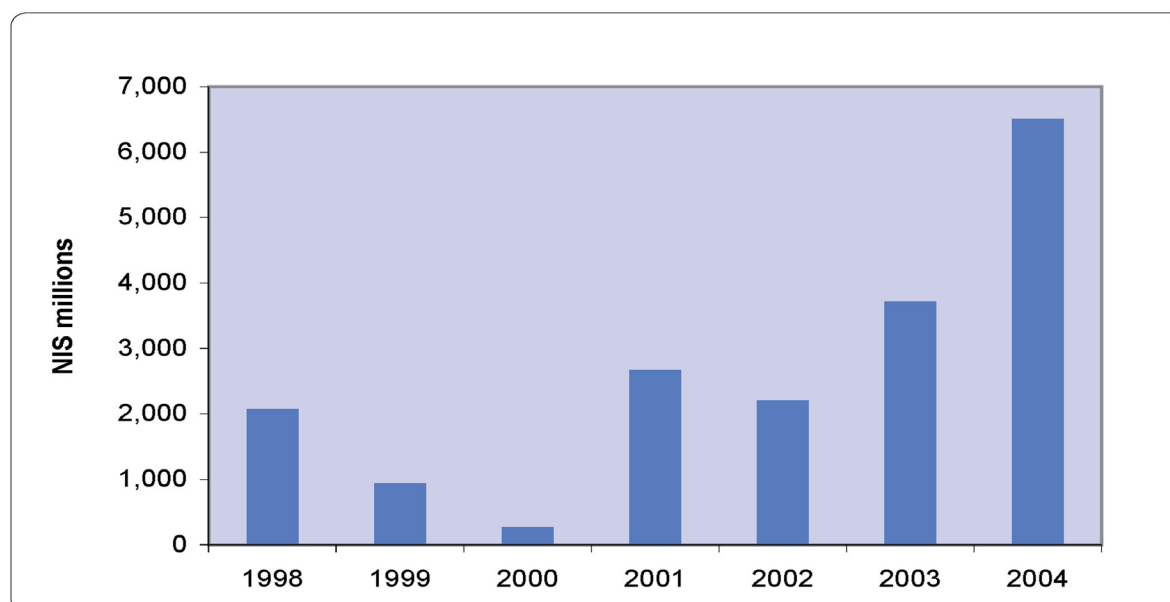
The Corporate Bonds Market

In 2004, following the reduction in government funding on the domestic bonds market, as well as the low yields, the corporate bonds market flourished. Corporate bond issues to the public reached NIS 6.5 billion in 2004 – 23 times more than in 2000. In addition, NIS 14.6 billion in bonds were privately allocated.

This development demonstrates the beneficial effects of the reduction in government funding. In other words, when the government is raising large sums of money, as it did during 2001-2003, it “crowds out” the business sector. When the government lessens its market presence, it releases resources to the business sector; in 2004, this sector certainly proved its ability to take advantage of the favorable circumstances in order to raise capital from the public, particularly institutional investors, at an attractive interest rate.

Investors, especially institutional investors who manage the public’s money, have the responsibility to maintain a reasonable balance between risk and return, and to ensure that the returns inherent in prices of securities actually do compensate investors for the risk they take.

Diagram F-1: Funding by the private sector through bond issues to the public, 1998-2004



Source: Bank of Israel.

Most of the capital raised by the private sector through bond issues to the public was via ordinary bonds (50.7 percent). Issues of structured bonds and certificates of deposit (CDs) comprised 31.7 percent and 14.3 percent, respectively, while the volume of issues

The Corporate Bonds Market

of exchange-traded funds (ETFs) was very low, at just 3.3 percent of total corporate bond issues¹³. The original term to maturity (weighted average by issuance amount) of funding through corporate bonds stood at 12.8 years. However, whereas the average term to maturity of ordinary bonds and structured bonds was approximately 10 years, the average term to maturity of ETFs and certificates of deposit was approximately 25 years.

A considerable share of bond issues by the private sector was to institutional entities and subsidiaries, while the general public's share stood at only 44 percent. However, the share of the general public in purchases of ETFs and CDs was much greater, at 100.0 percent and 76.2 percent, respectively.

Table F-1: Capital raised by the private sector through bond issues, by security type and linkage type

	Linkage type	Number of issues	Issue amount	Share of total issues ⁽¹⁾	Original term to maturity	Share of general public
Bonds		19	3,297	50.7	9.8	30.6
	Euro	2	503	7.7	13.0	56.9
	Dollar	1	60	0.9	9.0	30.0
	Unlinked	1	73	1.1	15.0	20.0
	CPI	15	2,661	40.9	9.1	25.9
Structured bonds		9	2,060	31.7	10.8	44.9
	Euro	1	230	3.5	12.0	45.8
	Dollar	7	1,700	26.1	10.6	46.5
	Unlinked	1	130	2.0	12.0	22.3
CDs		7	929	14.3	24.6	76.2
	Euro	1	37	0.6	44.0	100.0
	Dollar	2	181	2.8	40.2	0.0
	Unlinked	4	711	10.9	19.6	0.0
ETFs	Other indices	2	218	3.3	26.0	100.0
Total		37	6,504	100.0	12.8	44.0

⁽¹⁾ Weighted average.

Source: Bank of Israel and processing by the Government Debt Management Unit.

¹³ An exchange-traded fund is a tradable security that precisely tracks the changes in a particular index, without the need to buy all of the securities that compose the index and adjust the portfolio continuously. A certificate of deposit is a liquid bank deposit that yields a daily coupon to the holder.

Section F

The Corporate Bonds Market

Most of the funding via corporate bonds was carried out through issues of CPI-linked bonds (40.9 percent), due to the market demand for instruments of this type. The share of USD-linked bonds was also high, at approximately 30 percent. As shown in Table F-1, most USD-linked issues were of structured bonds, which were backed by bonds of international financial entities with very high credit ratings, and served as a substitute for USD-linked government bonds (Gilboa type), which matured in recent years. The Ministry of Finance views the entry of private entities into the foreign currency-linked bonds market as a positive development. This process eliminates the previous need for government intervention in the capital market in order to supply investors with foreign currency-linked instruments.

The average term to maturity of CPI-linked bonds was 9 years, while the average term to maturity of USD- and Euro-linked bonds was 14 years. It is particularly interesting that the term to maturity of unlinked bonds was higher than that of CPI-linked and foreign currency-linked bonds, at 18 years. This is surprising, since unlinked bonds have an inherent inflation risk that does not apply to CPI-linked bonds, and applies only partially to foreign currency-linked bonds. For this reason, the average term to maturity of CPI-linked bonds is generally longer than that of unlinked bonds.

Table F-2: Funding by the private sector through bond issues by linkage type

Linkage type	Number of issues	Issue amount	Share of total issues	Original term to maturity ⁽¹⁾	Share of general public
Consumer Price Index	15	2,661	40.9	9.1	25.9
Dollar	10	1,941	29.8	13.3	51.0
Euro	4	770	11.8	14.2	55.7
Unlinked	6	914	14.1	18.2	58.3
Other indices	2	218	3.3	26.0	100.0
Total issues	37	6,504	100.0	12.8	44.0

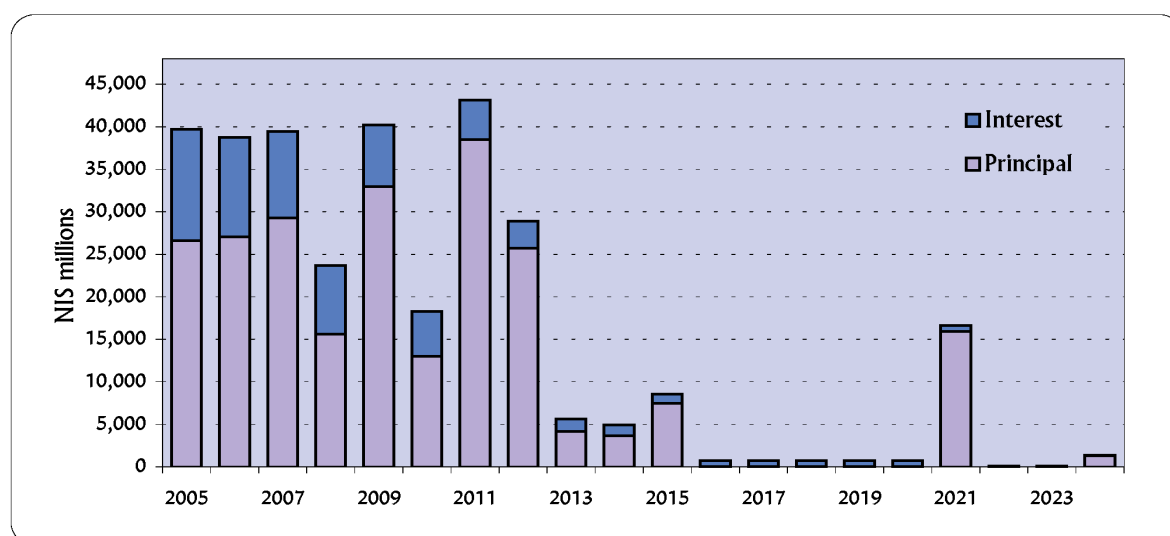
¹ Weighted average.

Source: Bank of Israel and processing by the Government Debt Management Unit.

Appendices

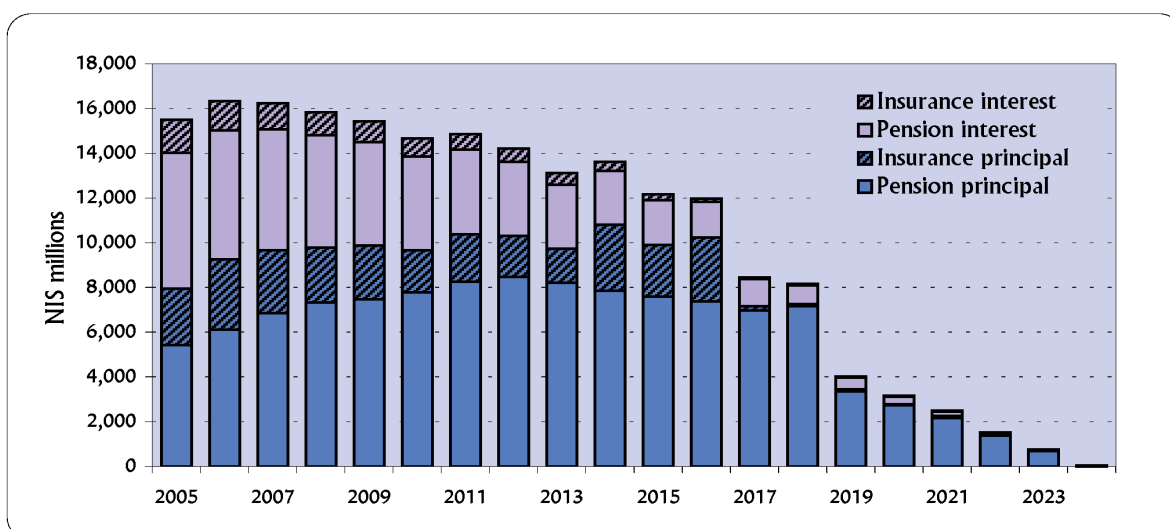
Appendix A – Forecast of Bond Maturities (as at December 31, 2004)

Diagram AP-1: Maturities of principal and interest payments on tradable domestic debt, 2005-2024



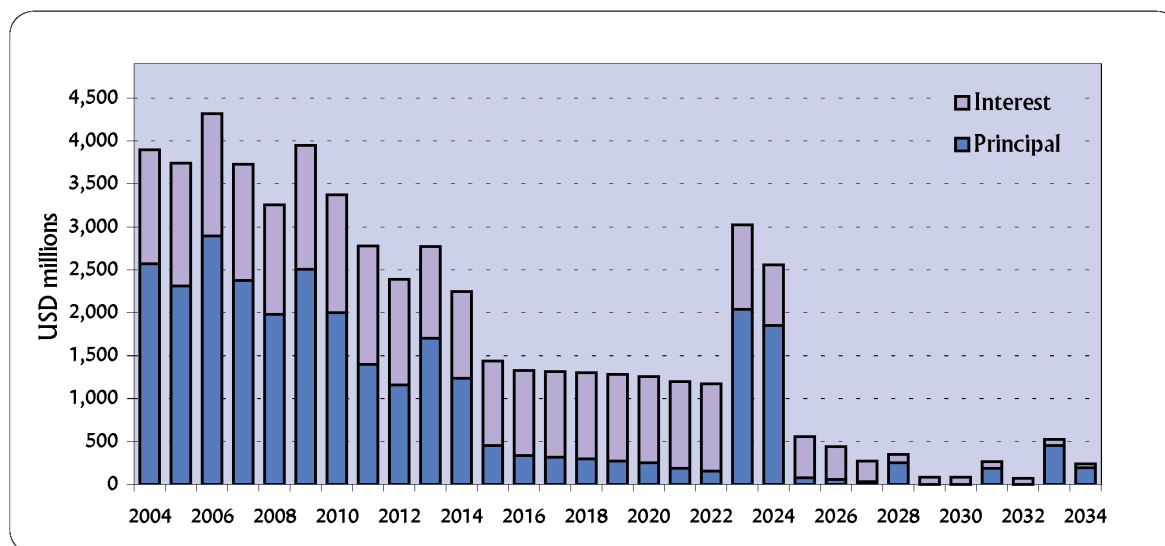
Source: Bank of Israel

Diagram AP-2: Maturities of principal and interest payments on nontradable bonds in the domestic market, 2005-2024



Source: Bank of Israel

Diagram AP-3: Maturities of principal and interest payments on external debt, 2004-2034



Source: Government Debt Management Unit

Appendices

Appendix B – Distribution of Tradable Funding by Linkage Type in 2004

	Unlinked, fixed- interest (‘Shahar’)	Unlinked, floating- interest	CPI-linked, fixed- interest (‘Galil’)	Total in NIS millions
Percentages				
January	45.2	22.4	32.4	4,465
February	44.2	24.4	31.4	3,313
March	45.9	25.6	28.4	4,276
April	43.6	26.8	29.6	3,472
May	41.8	24.9	33.4	3,341
June	45.8	25.8	28.4	3,627
July	42.7	23.9	33.5	2,458
August	45.9	24.4	29.7	2,411
September	43.5	24.4	32.1	2,175
October	40.5	22.1	37.4	1,868
November	42.7	26.3	31.0	1,807
December	42.0	26.1	31.9	1,830
Total	44.0	24.7	31.3	36,042

Source: Government Debt Management Unit

Appendix C – Characteristics of Tradable Bonds in the Domestic Market

Bond	First issue date	Interest	Interest payment	Term to maturity
CPI-linked				
Galil	Dec. 31, 1984	Fixed – based on average yields of fixed-interest rate CPI-linked bonds, according to the term to maturity of the series, or 1% (whichever is higher).	Once annually.	Series are currently issued with an original term to maturity of 10 and 20 years.
Dollar-linked				
Gilboa*	Oct. 24, 1988	Floating – based on six-month LIBOR interest rate.	Once every six months.	Issued for periods of 4, 5, and 10 years.
Unlinked				
New Gilon	Apr. 28, 1999	Floating – based on Makam yields for a period of 3-12 months.	Once every three months.	Possible term to maturity: 1-25 years.
Shahar	Aug. 24, 1995	Fixed – as determined by the Ministry of Finance.	Once annually.	Series currently issued with original terms to maturity of 5 and 10 years. Possible term to maturity: 1-20 years.

* The bond is no longer issued. One very small series remains in circulation.

Appendices

Appendix D – Characteristics of Bonds Issued by the Bonds Organization

Bond type	Interest rate	Interest payment	Repayment period (years)	Minimum purchase	Additional parameters
Fixed interest					
5-year Jubilee	TB5y + spread	Twice annually	5	\$25,000 (and in multiples of \$5,000)	
10-year Jubilee	TB10y + spread	Twice annually	10	\$25,000 (and in multiples of \$5,000)	
Development Current Income Bond	4%	Once annually	15	\$500 (and in multiples of \$500)	May be redeemed early in Israel, up to a total of \$2,500 monthly.
Development Registered Saving Bonds	4%	End of period	15	\$500 (and in multiples of \$500)	
Development Int'l Saving Bonds	4%	End of period	15	\$250 (and in multiples of \$250)	The bond is intended for investors outside the USA.
Mazal Tov	Strip5y+ spread	End of period	5	\$100 (and in multiples of \$100)	Non-tradable, no early redemption.
Zero Coupon	Strip10y+ spread	End of period	10	\$3,500	No early redemption.
Canadian Zero Coupon	Canadian Strip10y+ spread	End of period	10	\$3,500 Canadian	No early redemption.
Canadian Chai	Canadian Strip5y+ spread	End of period	5	\$147 Canadian (and in multiples of \$147)	No early redemption.
Canadian EDI	Canadian Strip5y+ spread	Semi annually	5	\$25,000 Canadian (and in multiples of \$5,000)	No early redemption.
Floating interest					
Libor Floating Rate Bonds	Libor + spread	Semi annually	10	\$5,000 (and in multiples of \$2,500)	Not approved for sale to banks; possibility of liens; may be redeemed early.
Variable rate Libor Notes	Libor + spread	Semi annually	5	\$100,000 (and in multiples of \$25,000)	Not approved for sale to banks.
Jerusalem Floating Libor notes	Libor + 20bp	Semi annually	7	\$150,000 (and in multiples of \$50,000)	May be redeemed early.
Canadian FRI	Canadian prime - 0.75%	Semi annually	12	\$5,000 Canadian	

Appendix E – Tax Rates Applicable to Government Bonds Issued After May 2000*

		Individual residents	Non-residents	Mutual funds			Institutional
				Exempt	Taxable	Mixed**	
Local							
Unlinked bonds	Capital gains	10%	0%	0%	10%	Investors in these funds will pay tax on real capital gains at a rate of 15% upon realization of the fund.	0%
	Interest	10%	0%	0%	10%		0%
CPI-linked bonds	Real capital gains	15%	0%	0%	15%		0%
	Interest	15%	0%	0%	15%		0%
Foreign currency-linked bonds***	Real capital gains	15%	0%	0%	15%		0%
	Interest	15%	0%	0%	15%		0%
Abroad							
Israeli Government bonds issued abroad	Capital gains	15%	0%	0%	15%	Investors in these funds will pay tax on real* capital gains at a rate of 15% upon realization of the fund.	0%
	Interest	15%	0%	0%	15%		0%

* From Jan 1, 2006 the 10% tax rate will become 15% and the 15% rate will become 20%.

** From Jan 1, 2006 the "Mixed" category of mutual funds will be cancelled.

*** Relative to the currency in which the bond is denominated.



Appendices

Appendix F – Personnel of the Government Debt Management Unit

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