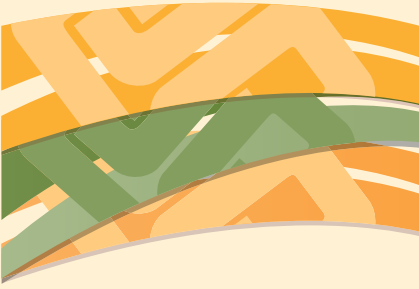




CENTRAL BANK OF  
TRINIDAD & TOBAGO

An abstract graphic design consisting of overlapping, curved shapes in various shades of orange, yellow, and green, creating a sense of movement and depth.

## THE GOVERNMENT SECURITIES MARKET IN TRINIDAD AND TOBAGO



## PUBLIC EDUCATION PAMPHLET SERIES

ISSN: 1817-1360

### ACKNOWLEDGEMENTS

The Bank wishes to acknowledge the contributions of Mr. Osborne Nurse and Dr. Ronald Ramkissoon, who made useful and valuable suggestions for this publication.

All rights reserved.

No part of this publication may be reproduced in any form or otherwise without the written permission of the Central Bank of Trinidad and Tobago.

ISBN:978-976-95154-8-2

© Central Bank of Trinidad and Tobago, February 2009

## FOREWORD

External communications are an important part of the business of the Central Bank of Trinidad and Tobago. The Bank's outreach initiatives are intended both to enhance its contribution to educating and informing the public generally, as well as to assist markets in understanding the Bank's policy actions and intentions.

In addition to the regular publications of its Research Department, the Bank's Outreach Programme has included lectures and speeches to school children by senior Bank officials, mentoring to undergraduate students and supporting an internship arrangement with the University of the West Indies.

This public education series is also a part of the Programme. Its intention is to provide information on topics and policies that are relevant to the management of the economy of Trinidad and Tobago. The world of business and trade is a fast-paced, ever-changing and challenging one and the tools of knowledge and information must be strategically used to navigate it.

This pamphlet series is geared towards a broad readership. It is likely to be a good source of information for students at the secondary and tertiary levels, professionals and other members of the public who are interested in increasing their knowledge of economics and business.

Each pamphlet will cover current and topical issues and explain new economic initiatives. In the series, every effort will be made to present the material in as non-technical a manner as possible while adhering to sound economic analysis and the highest editorial standards.

To this end, the Bank invited well-known economists from the private sector to join the editorial team, firstly to suggest topics that would be of interest to the public and secondly, to advise on ways to reach the target audience. The Bank also intends to invite guest contributors to the series from time to time.

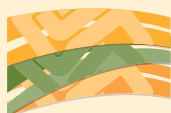
The current pamphlet examines the government securities market with special emphasis on the legislative framework and how the market works

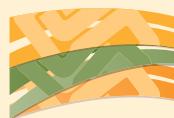
We hope that the series raises the level of public awareness and public discourse on economic issues and contributes to the strengthening of economic policy formation in Trinidad and Tobago.



---

EWART S. WILLIAMS  
GOVERNOR





## OVERVIEW

The government securities market comprises the issue, distribution, trading and redemption of treasury bills, notes and bonds. The arrangements and activities related to the issue and initial distribution of these securities constitute the primary market while the subsequent trading of securities is done in the secondary market.

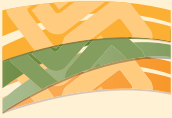
It is generally recognised that an active and efficient government securities market is a catalyst for development of the broader capital market. The development of capital markets has long been recognised as an important requirement for promoting long term economic growth.

Among the specific functions of a government securities market are:

- First, to provide a source of funding for budget deficits (by allowing governments to raise financing through the sale of treasury securities) thereby reducing recourse by the government to monetary financing (from the banking system) which can have greater inflationary consequences;
- Second, government securities can provide an alternative means of saving for the public;
- Third, in most economies, government securities are an important instrument for monetary policy implementation and for the transmission of interest rate signals to the rest of the economy; and
- Fourth, because of the above benefits, the government securities market is the centerpiece for the development of the broader capital market, by creating a benchmark for the pricing of other financial assets.

In most countries the process of capital market development invariably follows a certain chronological order. The first stage is normally the





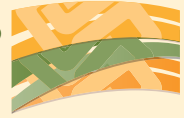
development of the market for government treasury bills. Early in this phase, treasury bill issues are largely aimed at supporting the short term financing needs of the central government as it seeks to compensate for the lack of synchronisation between government receipts and expenditure. Over time, treasury bills become attractive instruments for financial institutions wishing to better manage liquidity. In turn the preference of financial institutions (particularly commercial banks) for treasury bills makes the instrument ideal for use by the monetary authorities for influencing interest rates.

The second stage is normally the introduction of a primary market for government notes and bonds to help in the financing of the budget and long term development projects. Government bonds are convenient for financing infrastructural projects because they provide long term financing consistent with the long construction and gestation period of the projects. It also allows the population to participate in the infrastructural development of the country.

Developing countries rarely succeed beyond the stage of primary government securities issuance. A few emerging market countries, however, move to the next stage of developing liquid secondary markets for government securities<sup>1</sup>. Fewer still move to develop deep corporate bond or derivative markets.

<sup>1</sup>The nature and level of sophistication of a country's stock market in relation to the degree and development of the economy (e.g. GDP) are used to decide whether a country is classified as an emerging market economy.





## II. FUNCTIONS OF A GOVERNMENT SECURITIES MARKET

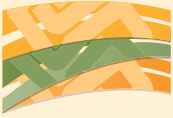
### Government securities and budget financing

Budget financing is the traditional reason why governments issue securities. During the fiscal year there is invariably a lack of synchronisation between the pattern of revenue collections and that of expenditure. Governments seek to finance this temporary imbalance through the issue of treasury bills. More generally however, there is very often an imbalance between the level of government revenues and actual government expenditure for the fiscal year as a whole. To meet a budget shortfall, governments usually raise the needed resources through the issue of medium or long term securities. In most countries, central government direct borrowing from the central bank or from commercial banks is prohibited or circumscribed by law. Borrowing through the issue of securities is considered more acceptable because it provides the opportunity for spreading government indebtedness more widely throughout the economy and over longer repayment periods. In addition to general budget financing, issues of government securities might be tied to the financing of specific infrastructural projects.

### Government securities as savings instruments

Governments sometimes see it as in both their own and the national interest to promote the savings habit in the population at large through the issue of savings bonds. This can occur if the government wishes to encourage a national savings effort for particular purposes, for example, to finance housing. Alternatively, in developing countries where there are concerns about collusion on deposit interest rates among the few banks, governments may see the development of





a retail market as a means of providing competition to the banking system. Governments may issue savings bonds in order to provide private citizens with instruments through which they could save and transfer resources to future generations.

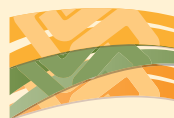
While the importance of attracting individual investors to the government securities market is generally recognised, particularly in developing countries the buyers of government securities tend to be mostly institutional investors, notably banks, insurance companies and pension and mutual funds (the wholesale market). In these countries, the development of a retail market targeted to individual investors tends to be limited for several reasons including: i) the high administrative cost - it is cheaper to sell in bulk than in a number of small lots; ii) the additional burden on the ministry of finance or central bank to service a large number of retail customers; and iii) the generally short term cash-flow profile of individuals as compared with institutional investors. For these reasons marketing agents are often used in the retail market.

### Government securities and capital market development

An efficient government bond market is deemed to be central in the development of the capital market because it provides a benchmark for the pricing of securities offered by other issuers. Basically, government securities are deemed to carry little risk. Thus rates of interest on these securities are considered the “risk free” return for an investment. This “risk free” return is the basic and most important element that goes into the pricing of other assets. An additional return over this base is added for the specific risks of other issuers. The total return on a non-governmental security therefore comprises the ‘risk free’ return plus a premium to reflect the additional risk over the government or treasury bond.







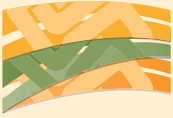
## Government securities in the conduct of monetary policy

Short and medium term government securities (treasury bills and notes) are very attractive to commercial banks because they help in liquidity management. The preference of commercial banks for treasury bills makes the instrument ideal for use by the central bank in influencing bank liquidity and the level of interest rates, both of which are the primary focus of monetary policy. In some countries monetary policy is conducted using securities issued by the central bank. More often, however, government securities are used in these monetary policy operations, referred to as open market operations.

This use of government securities in open market operations is considered the better option because it removes the interest cost and the potential for quasi-fiscal losses from the central bank<sup>2</sup>. There is also the argument that since the need for open market operations often arises as a result of fiscal expansion, the use of government securities allows the cost of such expansion to be properly recognised.

<sup>2</sup>Quasi-fiscal losses refer to those losses which may arise from activities carried out by the central bank, that are not specifically related to monetary policy and would in many countries be undertaken by the central government.





### III. THE GOVERNMENT SECURITIES MARKET IN TRINIDAD AND TOBAGO - THE LEGAL FRAMEWORK

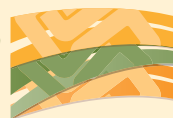
Traditionally, the Parliament has set limits for government borrowing under various pieces of legislation. These limits underscore the fact that the servicing of government debt must be met from future revenues and are meant to be an additional element of control on government spending.

In Trinidad and Tobago, the Treasury Bill Act was introduced in 1960, providing for the issue of treasury bills to fund the short term financing needs of the government. The original debt management treasury bill market offered only three month (91-day) bills until around 1970 when six month (182-day) bills were introduced. In 1993, in an effort to improve and widen market participation the Bank initiated steps to restructure and rationalize the treasury bill issue. The three month bills were offered every other Wednesday, and the six month every other month.

In the mid-1990s, as part of a comprehensive economic reform package, the Central Bank began to increase its reliance on open market operations in the conduct of monetary policy. This shift gave rise to an expansion of the treasury bill market to include, what came to be known as open market bills. Unlike the debt management bills that have a pre-determined schedule, open market bills are issued as required by the Central Bank, sold at issue only to primary dealers (described below) and are intended solely for monetary policy purposes.

Legislation approved in 1995, the Treasury Notes Act, empowered the Government to issue treasury notes, which are government





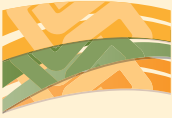
securities with a maturity of over one year and up to five years. These notes were introduced to fill the maturity gap between treasury bills and bonds. Treasury notes are currently sold at issue only to primary dealers for the conduct of monetary policy.

In 1962, the Government Savings Bonds Act was passed. The Act provided for the issue of savings bonds to promote the desirability of savings as part of the national development effort. Initially the bonds were issued in denominations ranging from \$50 to \$5,000 to encourage small savers. From around the mid-1970s in the context of a relatively high marginal tax regime and a shortage of savings instruments, the Government introduced tax free savings bonds. These bonds were issued for the first time in 1977, with maturities ranging from five to ten years. The bonds allowed individuals to deduct the purchase price from chargeable income and also provided for tax exemption of interest income.

Between 1977 and 1979 the value of the bonds sold was \$17.3 million but by 1987 the amount outstanding on tax free bonds had increased to \$314.1 million. With the decline in marginal tax rates as well as changes to the tax system over the 1989 - 1990 period, tax free bonds were not well received when they were reintroduced in the mid 1990's.

In 1964, the Development Loans Act authorised Government to borrow externally or internally through the issue of bonds with a maturity of up to 50 years to finance general development. Initially the bonds issued under the Development Loans Act were primarily long term in nature (25 years) and at fixed coupon rates of interest. Starting in 1989, many participants began to show a preference for floating rate issues with 'bells and whistles'. Between 1989 and 2000 there were 32 floating rate issues by the central government valued at \$2,407 million.





## THE GOVERNMENT SECURITIES MARKET IN TRINIDAD AND TOBAGO

Since 2000, partly in an effort to develop the capital market, the central government returned to the issuance of plain vanilla bonds. The investor base was predominantly commercial banks and life insurance companies which used these securities, in part, to meet their statutory fund requirements.

In 1967, Parliament passed the External Loans Act providing separate authority for external borrowing. Over the years, the approved limits under this legislation have been increased. The evolution of the approved limits under the various pieces of legislation is given in the table below.

**TABLE 1**  
**BORROWING LIMITS UNDER SELECTED LEGISLATION**  
**(\$ MILLIONS)**

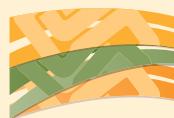
YEAR	TREASURY BILL ACT	TREASURY NOTES ACT	GOVERNMENT <sup>1</sup> SAVINGS BONDS ACT	DEVELOPMENT LOANS
1968	50	-	50	60
1971	100	-	50	240
1977	100	-	50	300
1983	500	-	300	1,000
1987	1,000	-	500	2,000
1995	2,000	1,000	500	7,500
2001	2,000	1,000	500	10,000
2003	5,000	3,000	500	13,000
2006	15,000	5,000	500	13,000

<sup>1</sup>National Tax Free Saving Bonds are issued under this Act by special regulations made in 1977.

<sup>2</sup>Includes \$1000 million of debt management bills.

Source: Central Bank of Trinidad and Tobago





## IV. THE INFRASTRUCTURE OF THE GOVERNMENT SECURITIES MARKET

### The Primary Market

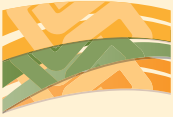
The Ministry of Finance issues all securities on behalf of the central government with the Central Bank having responsibility for the administration of the auction process (See Section V) and acting as registrar and paying agent. In turn, the Central Bank has appointed counterparties to make a secondary market for treasury bills, treasury notes and government bonds. The counterparties for treasury bills and treasury notes are called primary dealers while the counterparties for government bonds are referred to as Government Securities Intermediaries (GSIs).

All treasury securities are currently sold through an auction system which was automated in 2004. Prior to this, most government bonds were issued through an ‘underwriting’ system. Under this system, the underwriter was responsible for obtaining investors to invest in government bonds.

The public can buy debt management bills directly from the Central Bank or from the primary dealers. The primary dealers are authorised to participate in the auction either on their own account or on behalf of other clients. The public can submit competitive or non-competitive bids (see definition in Glossary). The primary dealers are also expected to buy and sell treasury bills in the secondary market (make a market).

Open market treasury bills and treasury notes are sold in the primary market only to the primary dealers, currently the commercial banks. As noted earlier, these securities are issued to influence the





level of liquidity in the banking system.

The counterparties to the Central Bank in the government bond market, the GSIs, include the commercial banks and a number of other financial institutions that meet certain specified criteria. (See Appendix III). The GSIs are authorised to purchase government bonds on their own account or on behalf of the public. In order to encourage participation by small investors in the government bond market, approval has been given to the GSIs to accept non-competitive bids of up to \$100,000.

Primary dealers and GSIs are electronically linked to the auction system at the Central Bank and must hold an account at the Bank to ensure the reliability of the clearance and settlement of their transactions.

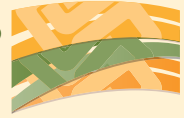
The Ministry of Finance, as issuer, appoints a trustee to look after the interest of the bondholders and a paying agent with responsibility for making coupon and principal payments to bondholders on the due dates. In addition there is a Registrar who is responsible for keeping correct records of the list of bondholders. The paying agent pays the interest and principal proceeds as instructed by the holders of the securities who are on the register.

### The Secondary Market

The secondary market for securities facilitates the transfer of ownership of the security and its conversion to cash prior to its maturity date. The secondary market for treasury bills and notes is an over-the-counter (OTC) market.

There is a centralized market for secondary market trading in government bonds at the Stock Exchange. This operation was automated in January 2008. Participants in this market are the





licensed stockbrokers and the GSIs, collectively termed Exchange Members. The Stock Exchange has established rules for this Exchange. The public can sell bonds in the stock exchange market through these bonds dealers.

## V. HOW THE PRIMARY MARKET WORKS

### The Treasury Bill Market

Treasury bills are issued on a discount basis. This means that purchasers pay the face value of the bond less the discounted amount.

#### BOX 1 TREASURY BILLS – FREQUENTLY ASKED QUESTIONS

##### **What are Treasury Bills?**

Treasury Bills are short-term debt instruments issued by the government. This makes them a very safe instrument in which to invest. These Bills are offered for periods of 1 year or less but are generally for periods of 91 days (3 months) or 182 days (6months).

##### **Who can buy Treasury Bills?**

Any individual or company can buy Treasury Bills. This can occur either when they are being issued or at any time that they are outstanding, once these Bills are up for sale.

##### **Where can Treasury Bills be purchased?**

Treasury Bills can be bought (or sold) at the Central Bank (Domestic Market Operations Department) or at brokers.

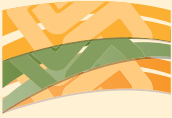
##### **What is the minimum value of Treasury Bills that can be purchased?**

The minimum denomination is \$1,000 and multiples of \$1,000 thereafter.

##### **Can Treasury Bills be resold before maturity?**

Yes, investors can resell Treasury Bills to the Central Bank or to a broker before maturity. Transactions with the Central Bank can be done on any working day between the hours of 8:00 a.m. and 12:00 noon on Monday to Thursday and 8:00 a.m. to 3:00 p.m. on Friday.





## BOX 2

### How are Treasury Bills traded?

Treasury Bills are traded (bought or sold) on a discount basis. This means that the price of the Bill is equal to its face value less the amount of the discount.

*Example:*

Let us assume you want to purchase \$1,000 of a Treasury Bill issued on June 20, 2008 with a maturing date of September 6, 2008, and the discount rate is 6.15 per cent. The number of days between the purchase date and maturity date is 78.

*The discount is calculated as follows:*

$$\begin{aligned} \text{Discount} &= \text{Principal} \times \text{Rate} \times \text{Time} / 100 \\ &= (\$1,000 \times 6.15 \times 78/365) / 100 \\ &\quad \text{(the Time is 78 days out of the 365 days in the year)} \\ &= \$13.14 \end{aligned}$$

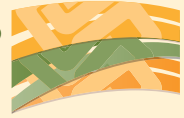
The *price* is the difference between the face value and the discount. In this example:

$$\begin{aligned} \text{Price} &= \text{Face Value} - \text{Discount} \\ &= \$1,000.00 - \$13.14 \\ &= \$986.86 \end{aligned}$$

Therefore, at issue you pay \$986.86 for Treasury Bills with a face value of \$1,000.







Treasury bills are distributed through a multi-price auction system that is each competitive bidder pays the price bid. The following example shows how the multiple price auction system works. For illustrative purposes the assumptions are i) an issue of \$4,000 for which ii) five primary dealers submit bids for \$1,000 each at prices as shown below:

TABLE 2

PRICE \$	FACE VALUE \$	STATUS	ALLOTTED PRICE \$
999.90	1,000.00	Successful	999.90
999.50	1,000.00	Successful	999.50
999.25	1,000.00	Successful	999.25
990.00	1,000.00	Successful	999.00
800.00	1,000.00	Unsuccessful	--

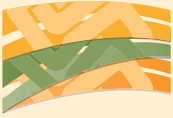
The convention is to quote the price for \$1000 of the security.

Under the multi-price auction system, the bid at the highest price, \$999.90, will be allotted first, and then the bid at \$999.50 and so on until the total issue of \$4,000 has been allotted. In this example, this happens at a price of \$990.00. Each of the successful primary dealers will pay their specific bid price, while the bid at the price of \$800.00 will be unsuccessful. A similar procedure is followed in the case of treasury notes.

In order to encourage and assist non-sophisticated investors, a window is allowed for the public to bid non-competitively in the auction of debt management bills<sup>3</sup>. Non-competitive bidders are

<sup>3</sup>By contrast, there is no non-competitive window in the market for treasury notes or bills issued for monetary policy purposes.





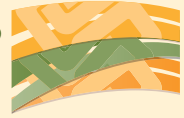
allocated securities ahead of the competitive bidders. The following conditions apply to non-competitive bidders:

- the purchase price is the weighted average price paid by successful competitive bidders.
- the maximum bid size is currently \$100,000.

The following example shows how non-competitive bidders are awarded securities in the multiple price auction. Using the same example of an issue of \$4,000 for which 5 primary dealers submit bids of \$1,000 each at the prices shown below, but additionally there is one non-competitive bid for \$1,000.

TABLE 3

PRICE \$	FACE VALUE \$	STATUS	ALLOTTED PRICE \$
NON COMPETITIVE	1,000	SUCCESSFUL	999.55
COMPETITIVE			
999.90	1,000	Successful	999.90
999.50	1,000	Successful	999.50
999.25	1,000	Successful	999.25
990.00	1,000	Unsuccessful	
800.00	1,000	Unsuccessful	



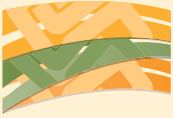
The non-competitive bid is allocated first but the purchase price is only determined after allotment to the successful competitive bids. This is because the price to be paid by the non-competitive bidder is the weighted average of the successful bids. In the example, this is \$999.55. The remainder of the issue, \$3,000 is allocated to the competitive bidders with the highest bids. In this example, competitive bidders at \$999.90 to \$999.25 are successful while those with the bid price of \$990.00 and \$800.00 are unsuccessful.

### The Government Bond Market

Government bonds, like all other bonds, are subject to registration by the Trinidad and Tobago Securities and Exchange Commission (TTSEC). Government bonds are normally introduced to the market by an Information Memorandum. The Information Memorandum describes the macro-economic context, the expected evolution of the economy, and the purpose of the issue. The information is provided to assure investors that the economic performance and government revenues would allow the servicing of the debt being issued.

Since 2004, government bonds are allocated through a single price auction system. Under this system all successful bidders pay the “cut-off” price of the lowest successful bid. Non-competitive bidding is also allowed. An illustration of a typical single-price bond auction is provided below. The example is of an auction of \$100,000 of government bonds involving 6 bids 5 of which are competitive bids totaling \$170,000 and one non-competitive bid of \$10,000.





**TABLE 4**  
**ALLOCATION OF BIDS IN A \$100,000 BOND AUCTION**

ORDER OF ALLOCATION	NOMINAL AMOUNT \$	BID PRICE \$	CUMULATIVE ALLOCATION \$	STATUS	CASH TO BE PAID ON SETTLEMENT \$
1	(NC) 10,000	NC	10,000	Successful	9,980
2	(C) 10,000	101.00	20,000	Successful	9,980
3	(C) 30,000	100.00	50,000	Successful	29,940
4	(C) 50,000	99.80	100,000	Successful	49,900
5	(C) 50,000	99.50	-	Not successful	-
6	(C) 30,000	99.00	-	Not successful	-

NC = non-competitive

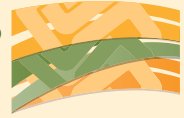
C = competitive

n.a. = not applicable

Source: Central Bank of Trinidad and Tobago

The results show that the allocation of \$10,000 is made first to the non-competitive bidder. However the price is only determined after the allocation to competitive bidders. Competitive bids are ranked from the highest to the lowest price (in this example from \$101.00 to \$99.00) and bids allocated until the entire issue is exhausted. All pay the price bid by the last successful bidder. In this example, this is \$99.80. This price is also paid by the non-competitive bidder.





### BOX 3

## GOVERNMENT BONDS – FREQUENTLY ASKED QUESTIONS

#### **What are government bonds?**

A Government bond is an instrument used by governments to borrow money. It is one of the most secure types of investments available as the likelihood that the government will not repay its debt is very low. The purpose for the issue of a government bond is explained to the public in the bond documentation which is published in the daily newspapers.

#### **How are Bonds Issued?**

Currently government bonds are issued through an electronic auction system at the Central Bank. The auction is opened for approximately two weeks. Information on the bond is documented in a Bond Information Memorandum which is published in the daily newspapers and posted on the Central Bank's website.

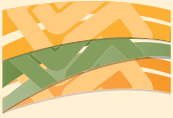
#### **Who can buy these bonds?**

Individuals as well as institutions - Pension Funds, Financial Institutions and Non-Financial Institutions – can purchase bonds. The government currently issues all its bonds through an automated auction system at the Central Bank. At the time of issue, the bond documents indicate where bonds can be purchased.

#### **Do I get a bond certificate as evidence of purchase?**

No. Bonds are now being issued in electronic form, that is, ownership is registered on an electronic system with the Registrar which is the Central Bank. The Registrar provides bondholders with periodic statements of ownership. Previously, a paper bond certificate was issued. However, while this provided bondholders with tangible evidence of ownership, there was a major disadvantage in that it made the sale of the bond difficult. This is because the process of changing the paper certificate to the new owner was lengthy. In modern systems therefore, bonds have been “dematerialised” that is, the records of bondholders are kept on an electronic register by the Bond Registrar.





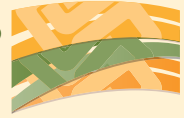
## VI. RECENT REFORMS IN THE BOND MARKET

Before 1985, government bonds were routinely issued to help meet the fiscal requirements. There was also a captive market for these issues because of the statutory requirements of insurance companies and the investment needs of the National Insurance Board and other state-sponsored financial institutions (e.g. the Unit Trust). With limited alternative investment opportunities and the existence of a captive market, government securities were sometimes mis-priced.

In the 1990s, in the context of rising inflation and increases in interest rates, the market began to favour floating rate instruments rather than fixed rate issues. As the market became more sophisticated, several additional features such as call options and strips were introduced.

Since 2000, efforts to upgrade the government securities market as a catalyst for the accelerated development of the broader capital market have been intensified. In the absence of a funding requirement by the government, these efforts have focused on enhancing the operations of the government securities market so that it provides the correct signals for private bond and equity markets. Accordingly, emphasis has been placed on redefining the characteristics of government bonds, expanding the mechanisms for their primary distribution through adoption of the auction system and upgrading the basic infrastructure needed to support bond transactions.





Prior to 2000, a limited number of financial institutions, acting as underwriters, were allowed to bid for an entire government bond issue. The primary government securities market was therefore an underwriters' market where the underwriting institutions gave a commitment to take a minimum of 75 per cent of the issue. The underwriters then sold off the issues to final investors.

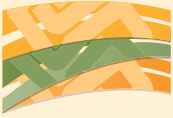
Steps have also been taken to develop the secondary market for government securities including repo activity. These include the automation of secondary market bond trading, moving all government securities into the electronic depository at the Central Bank and increased disclosure of trading information to the public.

The 'repo' market which is currently the most developed part of secondary market activity, has been largely unregulated. However, the Trinidad and Tobago Securities and Exchange Commission is in the process of preparing guidelines as well as a master repurchase agreement to govern this activity.

### Government Bond Market as an Information Provider

The Government usually has the best credit quality in the economy and its obligations carry the lowest credit premium. In principle therefore, markets take the government bond interest rate as the base for other interest rates in the economy; specific project and other





risks can thus be measured by the additional return required over the base government bond rate. In addition to this pricing function, the interest rate on government medium and long term bonds also provides clues on the government's inflation expectations. For these reasons, government bonds are issued over a range of maturities to establish a yield curve.

To better serve this information function, the Government shifted from floating rate bond issuance to vanilla bonds. These vanilla bonds are denominated in local currency, offer a fixed interest rate payment and repay the principal in a single amortization at the end of their life (a bullet structure).

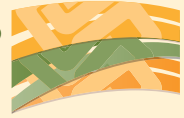
### A New Distribution Mechanism

Previously government debt was distributed through private placements using lead underwriters. Invariably this method acted to limit open competition and increased the cost of issuing government debt. With effect from 2004, the central government switched to an auction mechanism for primary bond issuance.

The table below shows the Primary Bond Market: Public Sector issues over the years 2000 to 2008.







**TABLE 5**  
**PRIMARY BOND MARKET: PUBLIC SECTOR ISSUES**  
**\$ MILLION**

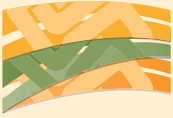
YEAR	CENTRAL GOVERNMENT	STATE ENTERPRISES AND PUBLIC UTILITIES	TOTAL
2000	897.1	2546.9	3444.0
2001	676.0	2046.7	2722.7
2002	1131.0	1901.5	3032.5
2003	2000.0	3403.8	5403.8
2004	1116.0	1261.4	2377.4
2005	800.0	2359.1	3159.1
2006	700.0	1800.0	2500.0
2007	1692.0	-----	1692.0

Source: Central Bank of Trinidad and Tobago

Some of the more recent central government bond issues have been utilized for liquidity absorption purposes in that the proceeds of the issues were sterilized in the Central Bank. In 2008, a new Treasury Bonds Act was passed, granting separate authorization for issuance of bonds for liquidity absorption purposes and without restrictions of a ceiling.

The auction system has served to encourage competition, minimize placement risk and foster transparency. The Government opted for a single price auction system whereby successful bidders all pay the same price, which is the “cut off” price at which the last bid was issued. The advantages and disadvantages of the single price and the alternative multiple price auction system are discussed in Appendix II.





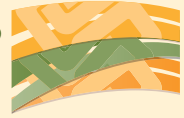
### New Infrastructure to Support the Government Bond Market

A number of reforms and a range of infrastructural changes have been introduced to support the auction mechanism since 2000. First, while formerly only a handful of firms was allowed to participate in the underwriting system, in the context of the auction system the Bank designated a number of financial institutions as government securities intermediaries (GSIs), licensed to participate in government bond auctions either on their own account or on behalf of other investors. The expansion in the number of players was intended to foster greater competition in the bond market.

Second, government bonds began to be issued in a de-materialised form, meaning that ownership was recorded in a Government Securities Depository maintained electronically at the Central Bank, rather than through the provision of bond certificates. Earlier bonds which had been issued in paper form are to be immobilised.

Third, the Central Bank implemented an automated electronic government securities system (GSS) to facilitate the integration of the government bond auction and depository system with the payment system.





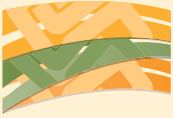
## A Secondary Market in Government Bonds

As noted earlier, the secondary market represents an advanced phase in the development chain and allows countries to benefit fully from the many potential advantages associated with government securities market development.

The main advantages of a secondary market for government securities are as follows:

- An efficient and liquid secondary market increases demand for government securities, even among retail investors, because it gives investors the assurance that they can convert their securities into cash when the need arises.
- Secondary market trading provides a mechanism for government securities to move from investors in the primary market to a wider range of end-investors such as pension funds, insurance companies, mutual funds and retail investors.
- By providing opportunities for more frequent trading, the secondary market improves the transparency of the pricing process for government securities. In so doing, the secondary market allows investors including mutual funds and pension funds to value their fixed-income portfolios on an ongoing basis.





## VII. CONCLUSION

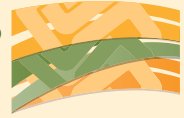
A necessary step towards the establishment of a secondary market is a well-functioning primary market. Trinidad and Tobago took this step with the launch of the automated auction system, the initiation of a process of dematerialisation of government securities and the establishment of an electronic registry, all at the Central Bank. With a fully established electronic primary market in place the following were undertaken to put an effective secondary market into place:

- GSIs and some securities brokers have been licensed to trade in government securities after being registered to do so by the Securities and Exchange Commission (SEC).
- The trading platform at the Trinidad and Tobago Stock Exchange has been adapted to accommodate secondary market bond trading;
- Seamless links have been established between the licensed participants (the GSIs and the stockbrokers) the platform and the depository; and
- Government securities trading rules have been developed.
- Rules have been established and implemented for the regulation of the market by the TTSEC.

Even with all these initiatives, as in other developing countries, achieving a well-functioning, liquid, secondary market for government securities still presents significant challenges. One such challenge is



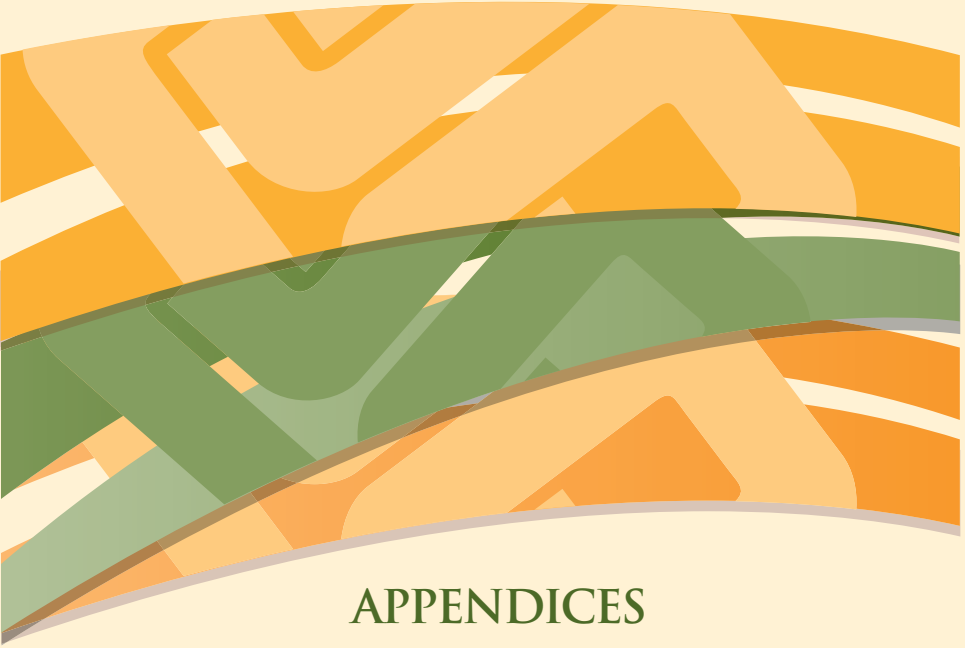
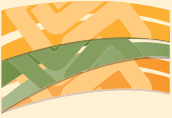
## THE GOVERNMENT SECURITIES MARKET IN TRINIDAD AND TOBAGO



to convince institutional investors to give up the traditional “buy and hold” culture and seek opportunities for profitable trading. In turn this would be facilitated by a regular, predictable and sufficient supply of primary market issuance.

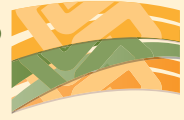
The Bank and the Government are working on these and other related issues.



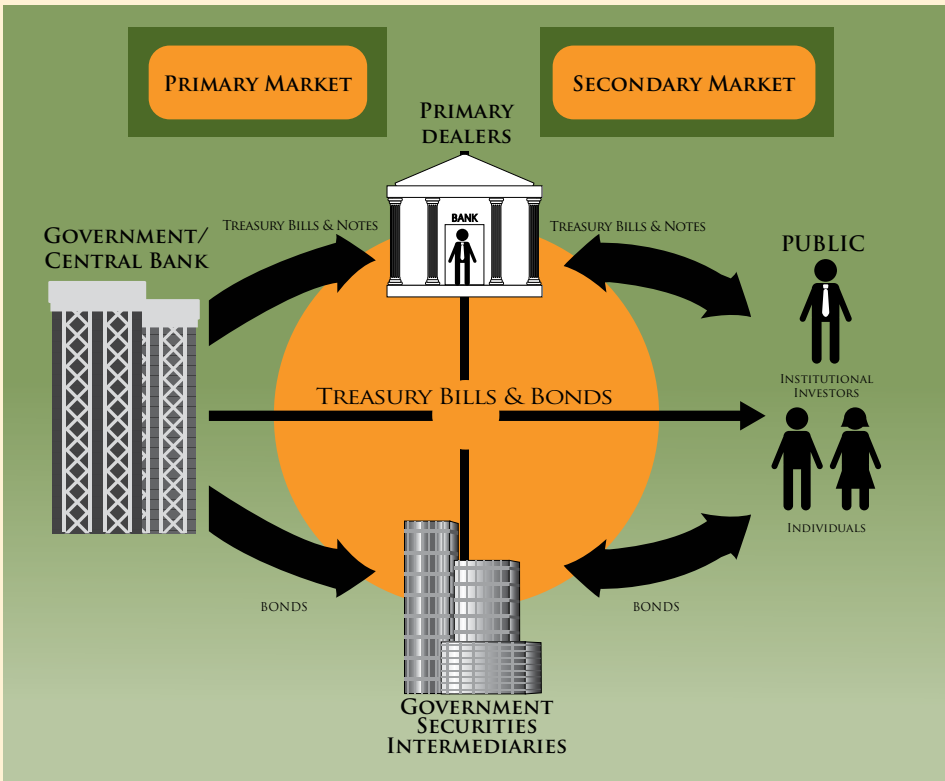


APPENDICES



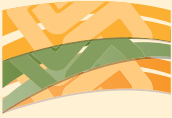


## APPENDIX I SCHEMATIC OF PRIMARY AND SECONDARY MARKET FOR GOVERNMENT SECURITIES



SOURCE: CENTRAL BANK OF TRINIDAD AND TOBAGO





## APPENDIX II

### SINGLE AND MULTIPLE PRICE AUCTIONS ADVANTAGES AND DISADVANTAGES

#### Multiple Price Auction

##### Advantage

1. The multiple price auction maximizes revenue for a given demand curve as each bidder pays price bid.

##### Disadvantage

1. Bidders who pay higher prices could face larger capital losses if the trading in these securities starts below the marginal price set at the auction. This is known as 'winner's curse'.

#### Single Price Auction

##### Advantage

- a. The single price auction minimizes uncertainty and encourages broader participation as all bidders pay the cut-off price.

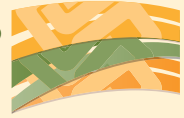
##### Disadvantage

- a. The single price auction does not encourage competition as all bidders pay the same price.
- b. The single price auction levels the playing field – reduces the strategic advantage in a discriminating bid.

SOURCE: CENTRAL BANK OF TRINIDAD AND TOBAGO







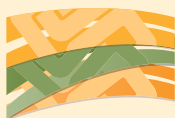
### APPENDIX III

## GOVERNMENT SECURITIES INTERMEDIARIES AS AT DECEMBER, 2008

- o ANSA Finance & Merchant Bank
- o Caribbean Money Market Brokers Limited
- o Citicorp Merchant Bank Limited
- o First Caribbean International Bank Limited
- o First Citizens Bank Limited
- o Intercommercial Trust & Merchant Bank
- o Republic Finance & Merchant Bank Limited
- o RBTT Merchant Bank & Finance Company Limited
- o Scotiatrust & Merchant Bank Trinidad and Tobago Limited
- o Trinidad and Tobago Unit Trust Corporation

SOURCE: CENTRAL BANK OF TRINIDAD AND TOBAGO





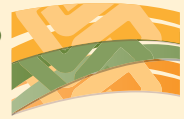
## APPENDIX IV

### CENTRAL GOVERNMENT BOND ISSUES BY INTEREST RATES AND TENOR 1997-2007

Year of Bond Issue		Amount (\$M)	Tenor (Years)	Interest Rate	
				Fixed (%)	Floating (% below prime)
1997	Borrowing Programme	300.00*	15	10.875	5.00
		100.00*	15	9.950	5.05
	Project Financing (Police Station)	100.00*	10	9.950	5.05
		100.00	10	9.950	
	Emolument Bonds	125.10*	20	11.500	1.00
				2.00	
				4.75	
	332.40	2	-	-	
1998	Project Financing Facilities	10.43*	20	11.500	1.00
	Emolument Bonds	439.60	2	-	2.00
					4.45
					-
1999	Project Financing Facilities	9.70*	20	11.500	1.00
	Borrowing Programme				2.00
					4.00
Emolument Bonds	544.70	2	-	-	
2000	Project Financing Facilities	0.40	20		
	Borrowing Programme	153.40	15	11.400	
		91.50	10	11.000	
		350.00	15	11.250	
		300.00	Series A: 5	11.150	
			Series B: 10	11.300	
		Series C: 15	11.400		
2001	Borrowing Programme	376.00	10	10.500	
		300.00	15	11.650	

continued on next page

## THE GOVERNMENT SECURITIES MARKET IN TRINIDAD AND TOBAGO



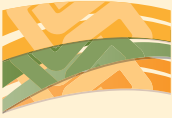
## Appendix IV continued

Year of Bond Issue	Amount (\$M)	Tenor (Years)	Interest Rate		
			Fixed (%)	Floating (% below prime)	
2002	31.07	20	11.500		
	300.00	Series A: 5	11.150		
		Series B:10	11.300		
	500.00	Series C:15	11.400		
	300.00	20	7.150		
		20	6.750		
2003	500.00	Series A:10	6.100		
		Series B:15	6.450		
	500.00	Series A:10	5.900		
		Series B:15	6.250		
	500.00	Series A:10	6.000		
	Series B:15	6.450			
	640.00	15	6.200		
2004	300.00	15			
	300.00	15	6.150		
	516.00	10	6.100		
2005	400.00	10	6.000		
	202.78	10	6.000		
	197.22	10	6.100		
			6.100		
2006	Liquidity Absorption Bond	700.00	8	8.000	
2007	Liquidity Absorption Bond	674.30	5.5	7.800	
		1,017.98	7.0	8.000	
2008	Liquidity Absorption Bond	1,200.00	9.0	8.250	

\* Fixed/Floating Rate Bonds

Source: Central Bank of Trinidad and Tobago





## APPENDIX V

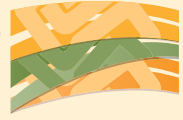
### SECONDARY MARKET TURNOVER 1997-2007

YEAR	TREASURY BILLS		GOVERNMENT SECURITIES <sup>1</sup>	
	FACE VALUE \$M	NO. OF TRANSACTIONS	FACE VALUE \$M	NO. OF TRANSACTIONS
1997	6,177.9	1,573	22.3	15
1998	5,928.2	2,299	0.3	4
1999	421.3	288	11.9	14
2000	991.2	306	19.9	15
2001	287.0	131	15.3	8
2002	41.8	14	na	na
2003	710.3	37	na	na
2004	701.1	68	na	na
2005	748.3	89	na	na
2006	1,192.8	106	na	na
2007	1,039.6	318	na	na

<sup>1</sup> STARTING IN 1993 TRADING IN GOVERNMENT SECURITIES WAS CONDUCTED UNDER THE AEGIS OF THE STOCK EXCHANGE.  
NA – NOT AVAILABLE

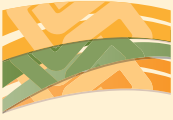
SOURCE: CENTRAL BANK OF TRINIDAD AND TOBAGO





## GLOSSARY OF TERMS





## GLOSSARY

### **Auction**

A distribution process whereby bonds are allotted based on prices bid by competing buyers.

### **Bid**

The highest price that a prospective buyer is willing to pay for a bond.

### **Capital Market**

The market where companies and the government raise long-term funds or trade securities. It comprises of both the stock market and the bond market.

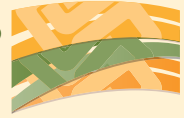
### **Competitive Bids**

The purchaser submits a bid price at which he is willing to buy securities.

### **Counterparty**

A person or company that agrees to be the opposite party in a financial transaction. In the case of the government bond auctions, the Central Bank has appointed a group of financial institutions, called Government Securities Intermediaries, to be its counterparty. These institutions have committed to purchase bonds from the Central Bank and also to make a market with the public.





### **Coupon Rate**

The stated rate of interest that a bond will pay annually to an investor throughout the life of the bond.

### **Dematerialised**

Description of the paperless form in which bonds are issued. Issuance in this form improves the efficiency of the primary market and facilitates secondary market trading in the securities.

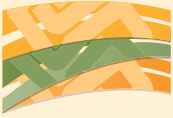
### **Fully-Subscribed**

The term used when the amount of successful bids received for a bond issue is equal to the amount of bonds offered in the auction. When the nominal amount of bids received in an auction is in excess of the amount offered in the auction, it is said to be over-subscribed. On the other hand, the term under-subscribed is used to describe an auction result in which the nominal amount of bids received was less than the amount of bonds offered in the auction.

### **Immobilise**

This entails recording changes of ownership by using “book-entry” accounting methods while maintaining physical certificates in a central location or depository; actual certificates do not change hands.





### **Information Memorandum**

A document which gives all relevant information on the bond issuer, the terms and conditions of the issue, important dates, application information and the names and addresses of the institutions that are charged with the administrative duties associated with the issue.

### **Issue Date**

The day on which the bond becomes effective. On the issue date, full payment is due by investors for the allotments that they are awarded in the auction.

### **Marketability**

The ease with which one can buy and sell securities after they are issued.

### **Nominal value**

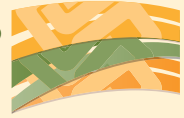
Is the amount paid to the bondholder at maturity. It is also known as “par value”; “face value” or simply “par”.

### **Non-Competitive Bids**

The purchaser agrees to accept the price determined in the auction.







## **Premium**

The difference between the face value of a bond and the higher price actually paid. Conversely, the difference between the face value of a bond and the lower price actually paid is called a discount.

## **Primary Market**

The part of the capital market that deals with the issuance of new securities.

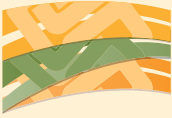
## **Secondary Market**

The part of the capital market in which securities that have already been issued in the primary market are bought and sold. In the case of Trinidad and Tobago this market is still underdeveloped and initiatives are now being taken to develop this market.

## **Single-Price Auction**

An auction in which successful bidders all pay the same price which is equivalent to the price bid by the last successful bidder. This is the type of auction currently used to allocate bonds issued by the Government of Trinidad and Tobago.





### **Strips**

These are derived by separating a standard bond into interest and principal payments, which can then be separately held or traded as a zero coupon bond.

### **Trustee**

An entity (in Trinidad and Tobago, a Trust Company) hired by the bond issuer to ensure that the borrower complies with the terms and conditions of the trust deed and to look after the rights of bondholders.

### **Trust Deed**

A legally binding agreement between the issuer of a bond and a trustee. This agreement details the responsibilities of the issuer, the rights of bondholders and remedial actions to be taken in cases of non-compliance by the issuer.

### **Yield**

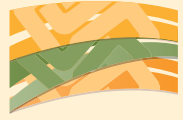
The expected annual rate of return on an investment, expressed as a percentage.

### **Zero Coupon Bond**

A bond which has no intermediate coupon but one payment at final maturity. The bond is sold at a discount to its face value.



THE GOVERNMENT SECURITIES MARKET IN TRINIDAD AND TOBAGO





CENTRAL BANK OF  
TRINIDAD & TOBAGO

Eric Williams Plaza, Independence Square  
Port of Spain, Trinidad and Tobago, Postal Address: P.O. Box 1250  
Telephone: (868) 625-4835; 4921; 5028 Fax: (868) 627-4696 Telex: 22532; 22386  
E-mail Address: [info@central-bank.org.tt](mailto:info@central-bank.org.tt)