

SINGAPORE GOVERNMENT SECURITIES MARKET

**AFDP Workshop on Developing Government Bond
Markets in APEC Economies**

November 2002

MONETARY AUTHORITY OF SINGAPORE

Background

Issuance History

- First issued in 1960s:

To meet banks' demand for liquid and risk-free assets for their Minimum Liquid Asset (MLA) requirements

- Market revamped in 1987:

- Introduction of book-entry system for SGS
- Introduction of Primary Dealer system of market makers



Issuance History

- In 1998:

MAS embarked on strategies to enhance Singapore's position as a world-class financial centre

One key strategy was to develop Singapore as an international debt hub

Central to this is the development of a liquid and efficient SGS market

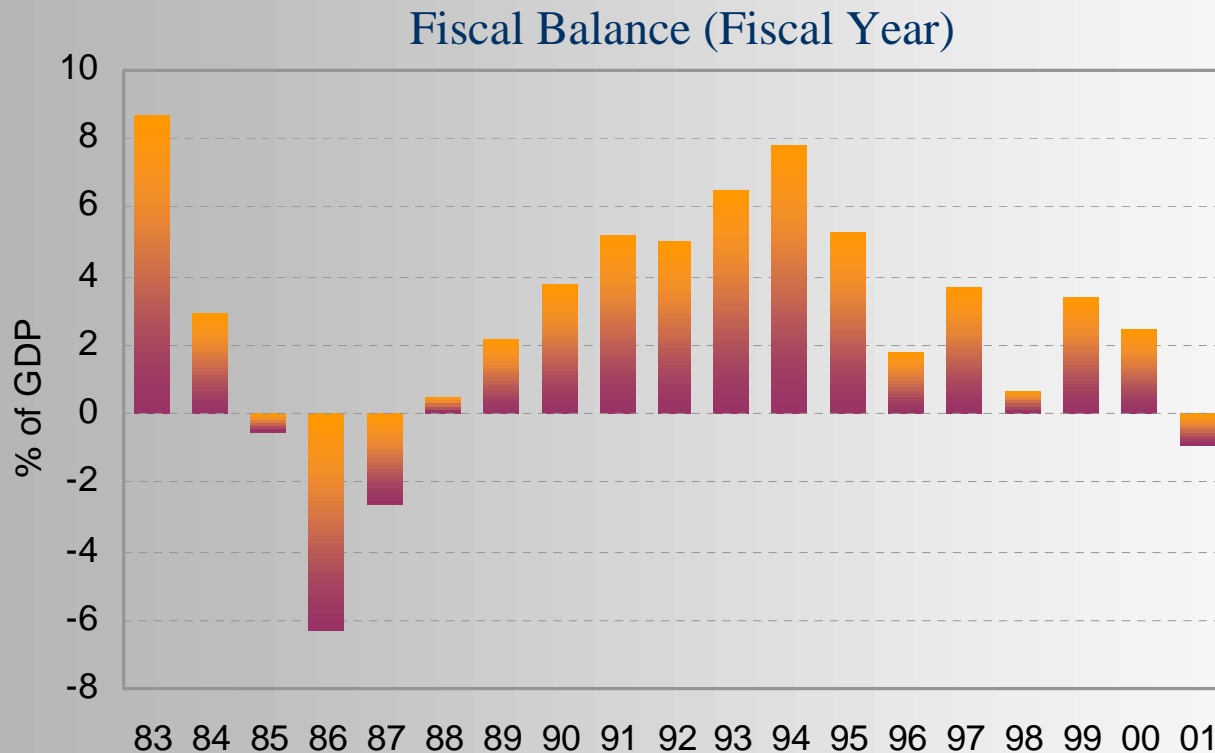
- Since 2000:

MAS embarked on a focused issuance program and various developmental initiatives



Why issue SGS?

- The Singapore Government consistently runs budget surpluses. It does not need to borrow to finance expenditure.

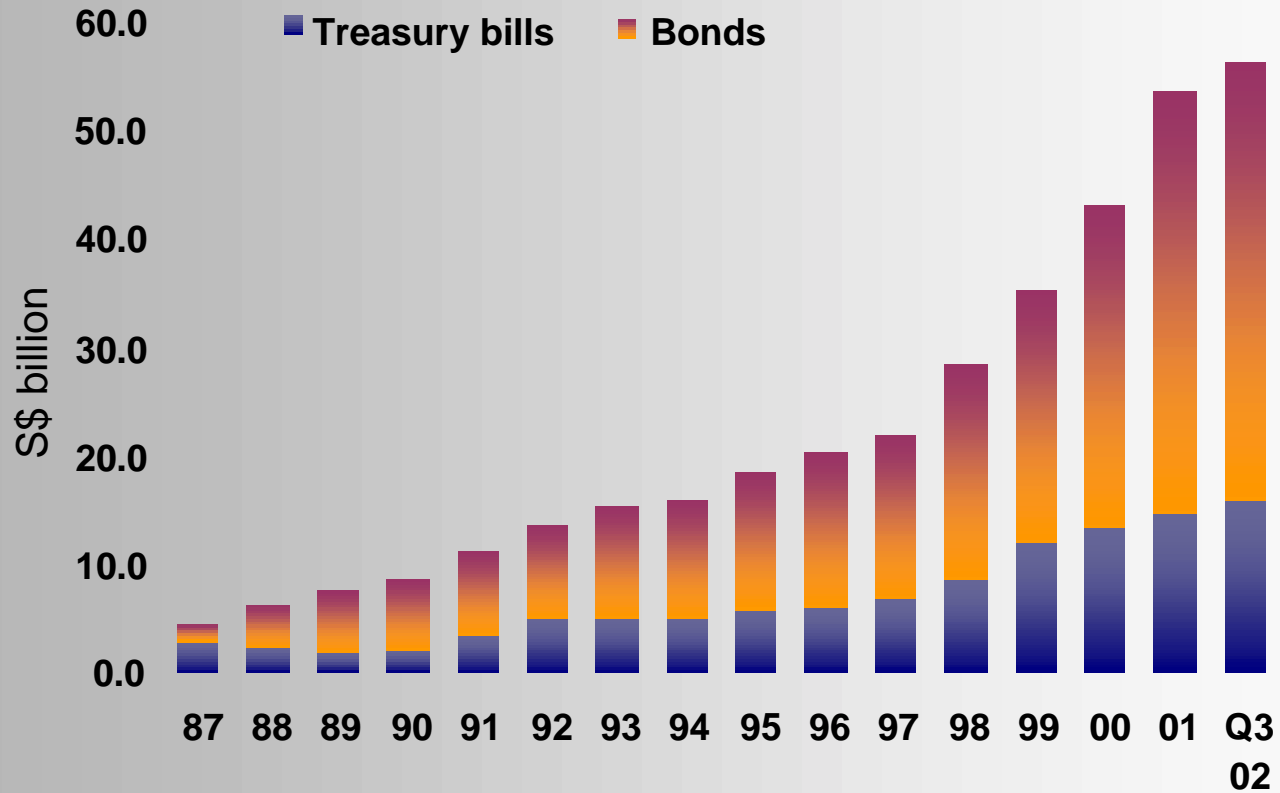


Why issue SGS?

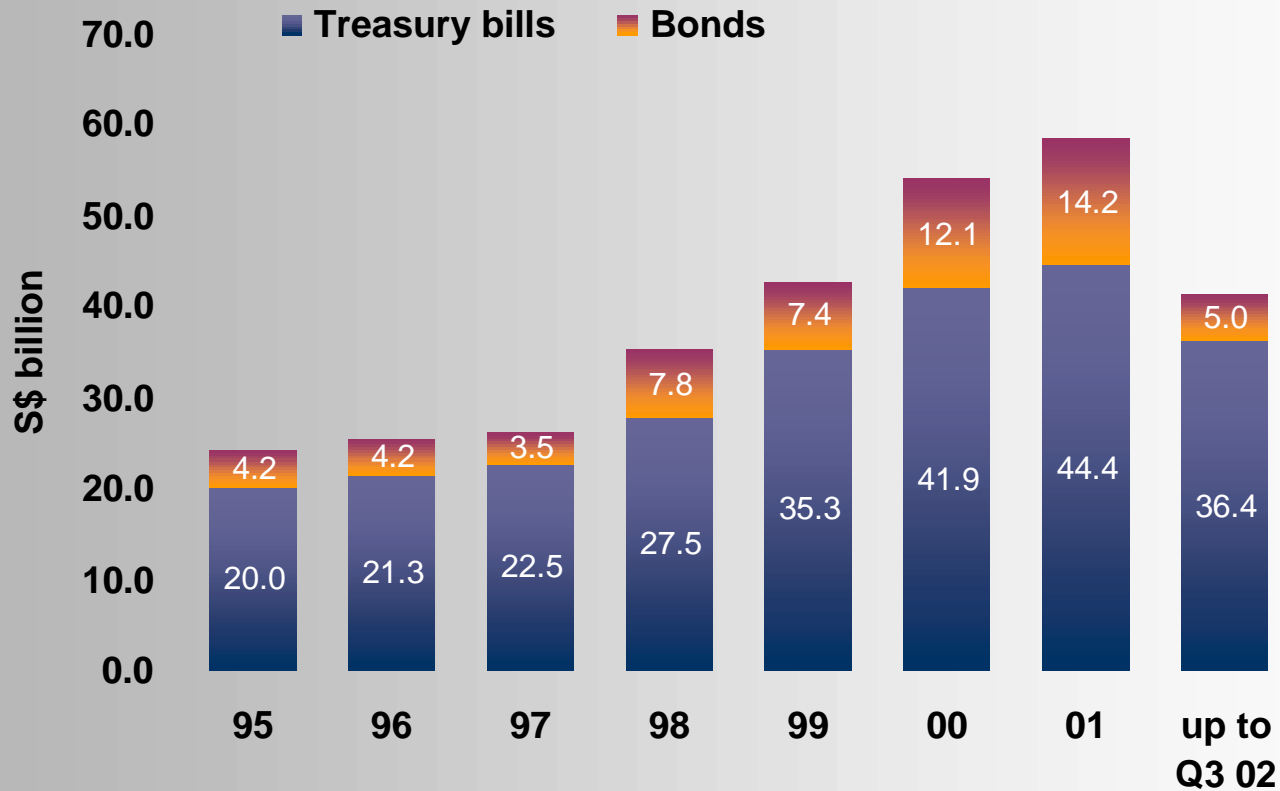
- Main objectives of SGS issuance:
 - (a) Establish a liquid government bond market - benchmark for corporate debt market
 - (b) Provide an investment alternative with little or no risk of default for investors
 - (c) Encourage the development of skills relating to fixed income financial services in Singapore



Outstanding SGS



Gross SGS Issuance



Development Initiatives

Development Initiatives

- **Enhance Market Liquidity**
- **Promote Investor Awareness**
- **Enhance Market Professionalism**
- **Improve Market Transparency**
- **Improve Market Processes**
- **Develop Related S\$ Markets**



Development Initiatives

- **Enhance Market Liquidity**



Enhance Market Liquidity

Primary Dealer (PD) System of Market Makers

- PDs provide market liquidity; bring knowledge and expertise; and attract global investors
- PDs have been proactive and forthcoming in working together with MAS towards developing market
- First introduced in the 1987 SGS market revamp
- Presently 11 PDs, with latest additions being ABN Amro (Apr 02), Deutsche Bank (May 01) and Credit Suisse First Boston (Feb 01)



Enhance Market Liquidity

■ PD Obligations

- • Quote effective 2-way prices for SGS outright and repo transactions under all market conditions
- • Participate actively in the SGS issuance program and underwrite SGS issues
- • Provide market feedback and daily closing prices for all SGS issues to MAS
- • Actively contribute to the development of the SGS market and related interest rate markets



Enhance Market Liquidity

■ PD Privileges

- • Exclusive dealing with MAS in money market and foreign exchange operations
- • Exclusive access to MAS Repo Facility to borrow SGS issues to facilitate market-making
- • Exclusive right to submit applications for SGS at auctions and reverse auctions
- • Higher allocation limits at SGS auctions
- • Tax exemption on trading income derived from SGS



Enhance Market Liquidity

Focused Issuance Program

This initiative began in May 2000.

- This was to ensure that there was a sufficiently large free float of benchmarks to facilitate active secondary trading of SGS
- Typical issue sizes today for new benchmarks between S\$2-2.5 billion



Enhance Market Liquidity

MAS Repo Facility

Introduced in June 2000. This facility allows PDs to cover short SGS positions on an overnight basis.

- It is essentially a facility for PDs to borrow a specific SGS issue, collateralized by another SGS issue
- Bidding via a multiple price, closed auction tender for pool of SGS available in MAS' holdings
- Facilitates PDs' market-making activities



Enhance Market Liquidity

SGS Purchase Operation

Conducted in November 2000.

- The operation allowed MAS to mop up illiquid off-the-run issues from the market and re-channel liquidity to benchmark issues.

Reopening of Off-the-Run SGS Issues

Strategy was employed since 2001.

- Reopening of off-the-run issues reduces the outstanding amount of illiquid SGS issues.
- It also enlarges the free float of benchmark issues, which facilitates trading.



Enhance Market Liquidity

Extension of SGS Yield Curve

- 10-Year SGS in Jul 1998, 15-Year SGS in Sep 2001
- Provides extended yield curve for trading or hedging positions

Lowered denomination of T- bills

In January 2002, the minimum denomination of SGS T-bills were lowered from S\$10,000 to S\$1,000

- Makes SGS more accessible to the investing public and broadens investor base
- Standardizes minimum denomination of SGS T-bills and bonds



Enhance Market Liquidity

Revision of Primary Auction Rules

Revised in Sep 2002

- Non-competitive bidding introduced for T-bill auctions (previously only for bonds)
- Increased non-competitive bid limits per applicant (previously \$0.5m):
 - Non-PDs - \$1m for T-bills, \$2m for bonds
 - PDs - 1% of issue on offer
- Targeted at attracting more end-investor participation in primary auctions, and boosting end-investor interest in market



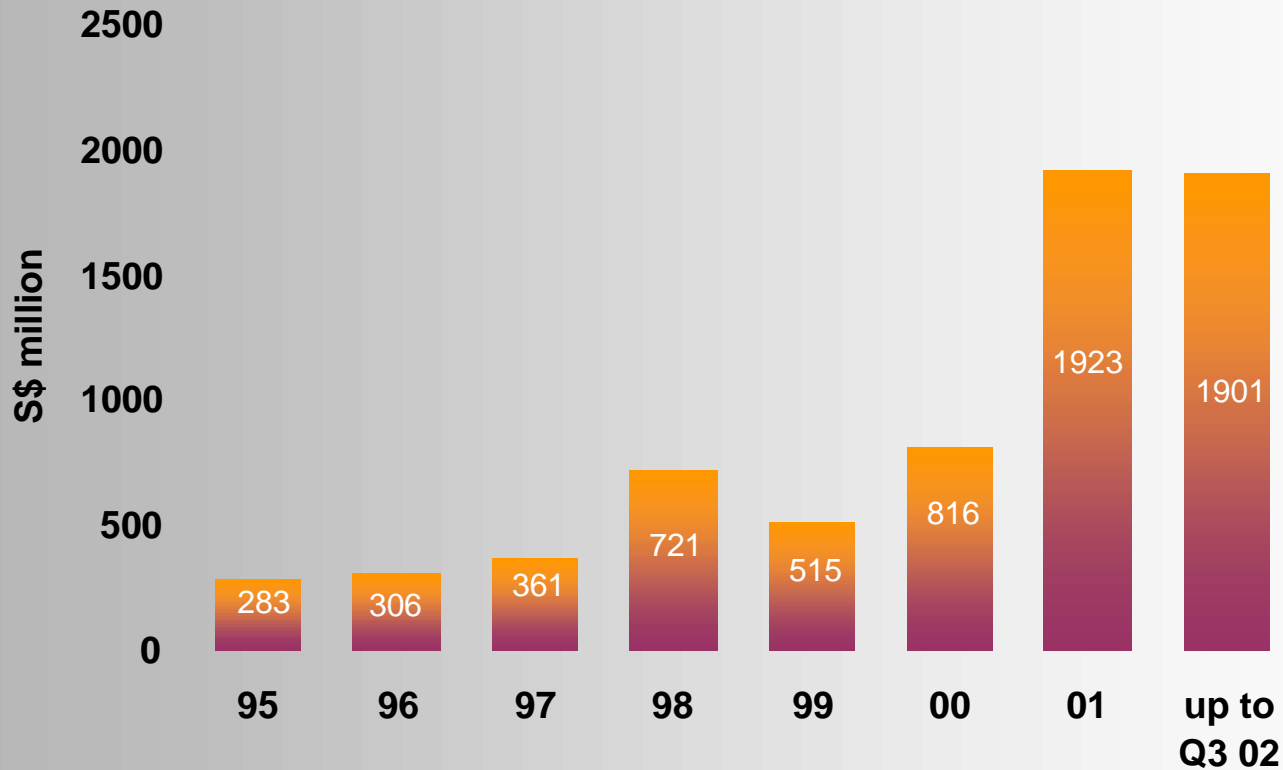
Enhance Market Liquidity

Launch of Electronic Trading Platforms

- BondsInSingapore launched in Jan 2002
- Bloomberg BondTrader launched in Jun 2002
- Limited volume to date



Daily Average SGS Volume



Development Initiatives

- **Enhance Market Liquidity**
- **Promote Investor Awareness**



Promote Investor Awareness

Conducted International Road-Show

In May 2001, MAS conducted an international non-deal road-show to promote SGS

- MAS led team to major international financial centres in New York, London and Tokyo
- Aim was to raise awareness of SGS and other S\$ fixed income financial instruments and to attract foreign investor participation



Promote Investor Awareness

Launched a Dedicated SGS website

The website was launched in April 2002

- Provides a one-stop shop for comprehensive information and data on the SGS market

Published an SGS Guide

The Guide was released in September 2002

- Seeks to educate investors on, and create greater awareness of, the SGS market



Development Initiatives

- **Enhance Market Liquidity**
- **Promote Investor Awareness**
- **Enhance Market Professionalism**



Enhance Professionalism

PSA/ISMA

General Repo Master Agreement

At end-1999, MAS signed the agreement with **SGS** Primary Dealers and encouraged the adoption of the agreement among market players

- Establishes a legal framework that meets international standards
- Facilitates the entry of more foreign players into the SGS repo market



Enhance Professionalism

Guidelines for Treatment of Failed Trades

MAS worked with the Primary Dealers to institute guidelines for failed SGS outright trades, which have been incorporated in the "Rules & Market Practices of the SGS Market"

Issued Guides on Market Practices

These initiatives seek to set proper guidelines for players of the SGS market.

- June 2002: Issued "SGS Repo Code of Best Practice"
- September 2002: Issued "A Guide to Primary Dealer Operations"



Development Initiatives

- **Enhance Market Liquidity**
- **Promote Investor Awareness**
- **Enhance Market Professionalism**
- **Improve Market Transparency**



Improve Transparency

Pre-announced Calendar of Issuance

Since 1999, the release of an annual issuance calendar allows investors to plan their investments ahead with greater certainty and clarity

- Advance issuance calendars are released on the SGS website at the end of each year for SGS issuance the following year
- Issuance calendar specifies the issue date and tenor of each SGS auction, and whether the auction is a new SGS issue or a re-opening of an existing issue.



Improve Transparency

Disclosure of MAS' SGS Market Participation

Started in Jun 2002, it seeks to bridge information asymmetry between the market and MAS

- Declare, together with auction announcement, the amount of securities MAS intends to bid for on a non-competitive basis
- Announce, together with the release of the results of each primary auction, the amount of SGS allotted to MAS
- Disclose MAS' holdings of SGS on the SGS website



Development Initiatives

- **Enhance Market Liquidity**
- **Promote Investor Awareness**
- **Enhance Market Professionalism**
- **Improve Market Transparency**
- **Improve Market Processes**



Improve Market Processes

MAS Electronic Payment System (MEPS)

This is our RTGS system launched in August 1998 and through which SGS outright and repo trades are settled

- Delivery-versus-Payment settlement on a real-time gross basis
- Provides finality of settlement for SGS transactions
- Enhances robustness of SGS market



Improve Market Processes

SGS Electronic Applications (eApps)

An internet-based platform, SGS eApps was introduced in January 2002

- Facilitates more effective communication between PDs and MAS
- First application was the online bidding facility for SGS primary auctions → greater efficiency has allowed MAS to shorten auction window to 1 hour
- Additional modules to be added in due course



Development Initiatives

- **Enhance Market Liquidity**
- **Promote Investor Awareness**
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- **Improve Market Transparency**
- **Improve Market Processes**
- **Develop Related S\$ Markets**



Develop Related Markets

SGS Sale & Repurchase Agreement (“Repo”) Market

The adoption of SGS repos as a key instrument in MAS’ money market operations since mid-1999 has helped to jumpstart the SGS repo market

- Daily Average Turnover increased from S\$228m in 1998 to S\$1.8b in 2001 and S\$2.6b in Jan-Oct 2002
- MAS accounted for 15% of the daily average turnover of the repo market for the period Jan-Aug 2002, compared to 45% in 2000



Develop Related Markets

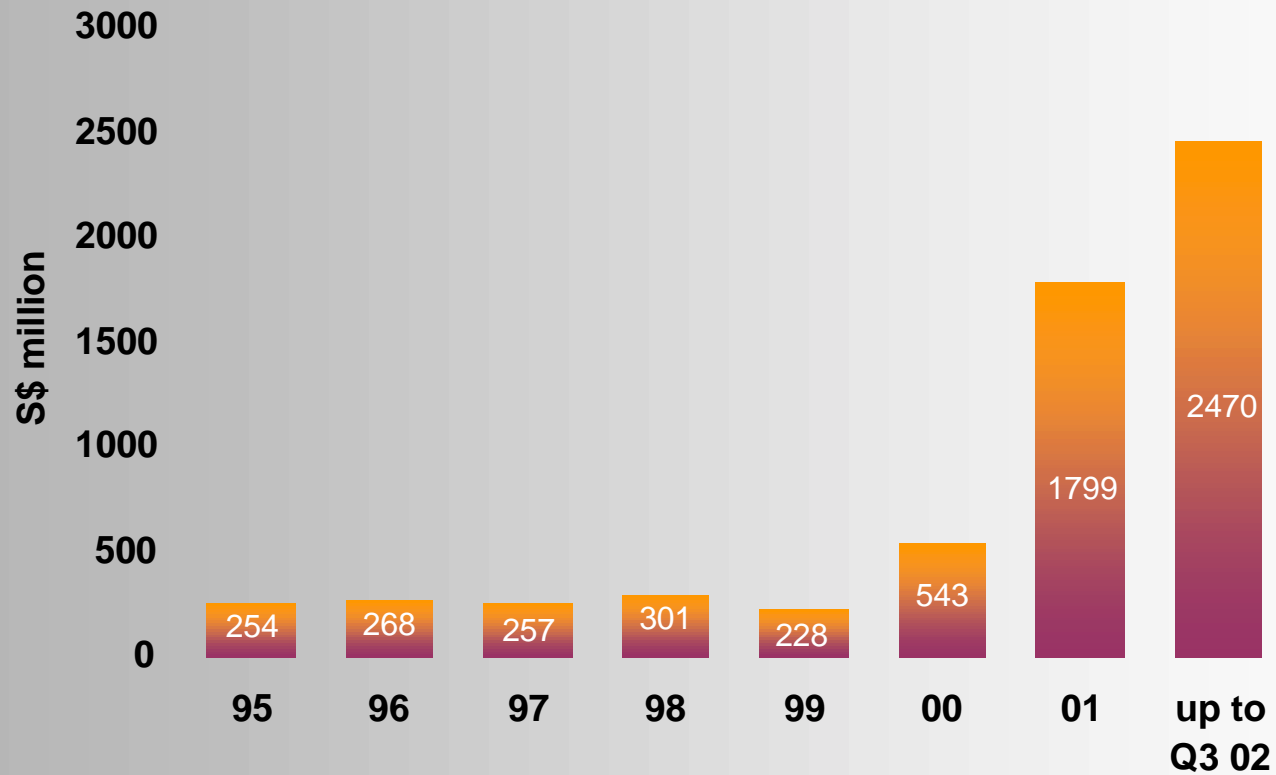
Bond Futures Market

The Singapore Exchange launched the 5-year Singapore Government Bond futures contract in June 2001

- Provides an additional instrument through which traders can take and hedge SGS positions
- At any point, contracts for the 2 nearest quarterly months are listed on the Singapore Exchange



Daily Average SGS Repo Volume



More Information on SGS

SGS Website
www.sgs.gov.sg



A Guide to SGS



End of Presentation



Development of Corporate Bond Market

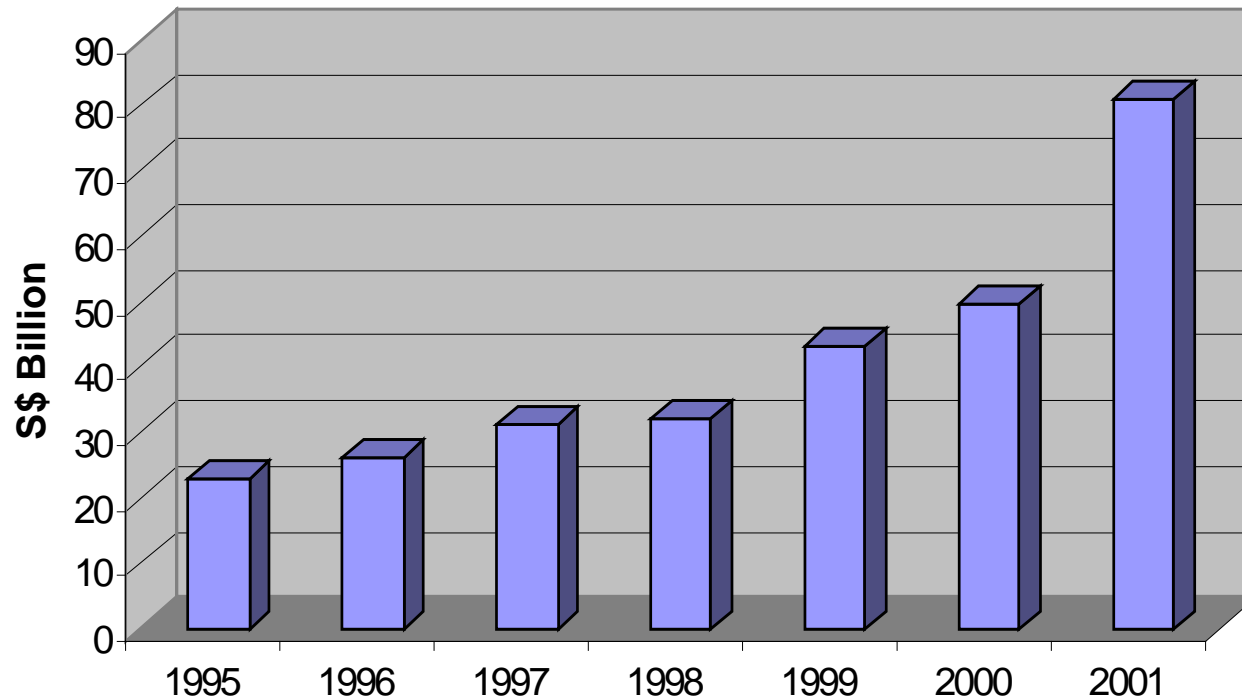
Rapid Development Since 1998

- Outstanding corporate debt (S\$ and non-S\$) increased more than twofold from S\$32bn in 1998 to S\$81bn in 2001



Development of Corporate Bond Market

Total Outstanding Corporate Debt in Singapore



Development of Corporate Bond Market

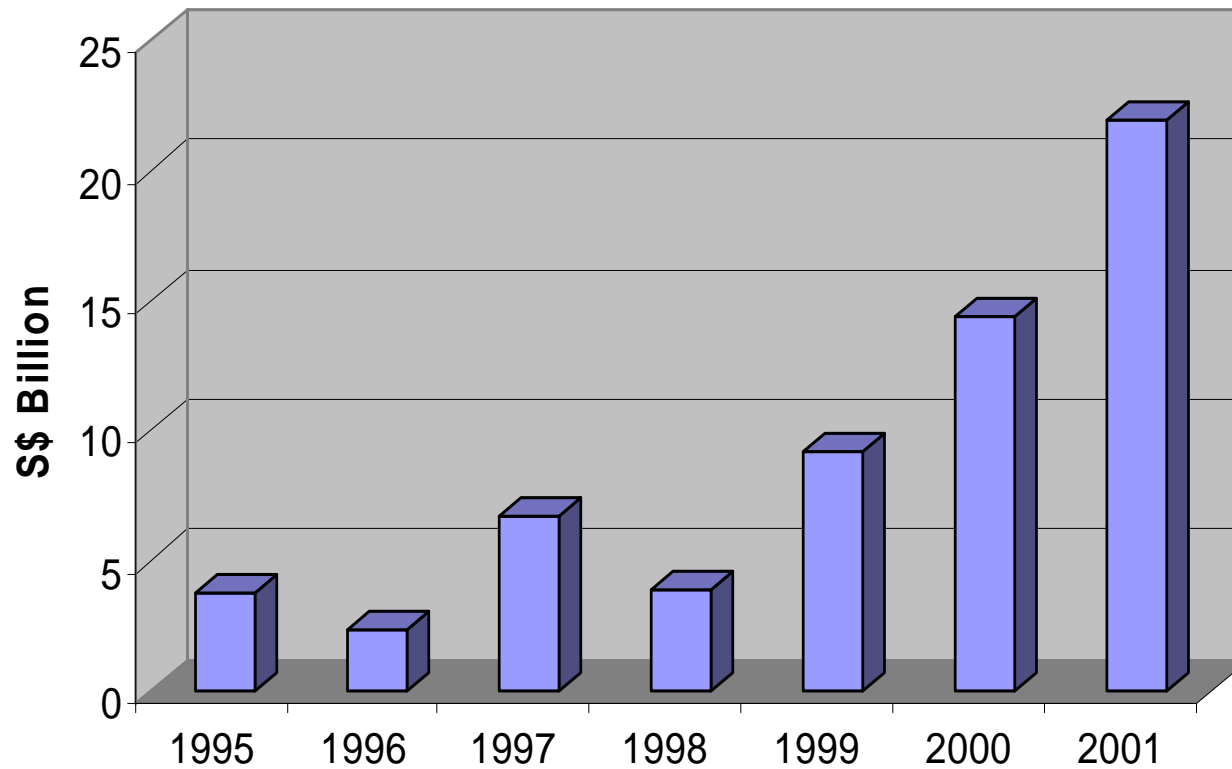
S\$ Corporate Bonds

- S\$ debt issued in 2001 of S\$22bn, an increase of 464% from 1998
- Notable foreign entities which have issued S\$ bonds include Freddie Mac, The International Financial Corporation (IFC) and European Bank for Reconstruction and Development (EBRD) and GE Capital



Development of Corporate Bond Market

S\$ Corporate Debt Issuance in Singapore



Development of Corporate Bond Market

Non-S\$ Corporate Bonds

- Non-S\$ debt issued increased nearly tenfold between 1998 and 2001 to S\$50bn
- Foreign entities accounted for more than 60% of the new issues in 2001.



Development of Corporate Bond Market

Non-S\$ Corporate Debt Issuance in Singapore

