

Developing Singapore's corporate bond market

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1. Introduction

Prior to 1998, Singapore's bond market was small and relatively undeveloped because the government ran budget surpluses and had no need to raise funds in the capital markets. Singapore Government Securities (SGSs) were issued mainly to meet banks' statutory liquidity requirements. Indeed, most SGSs were held by banks and insurance companies, and not actively traded.

The absence of a deep local bond market meant that private borrowers relied mainly on bank borrowings and equity to meet their funding needs. The Asian financial crisis of 1997-98 demonstrated the need for a broader range of funding sources, which led the Singapore government to embark on a major programme to develop a local bond market. This paper provides the history of this developmental effort, and discusses the issues and challenges facing the Singapore bond market going forward.

2. Initiatives to develop Singapore's bond market

The Monetary Authority of Singapore (MAS) designed a corporate bond market development programme with three principal objectives:

1. Building a liquid government benchmark yield curve to act as a price discovery mechanism for issuers and investors;
2. Fostering the growth of an active secondary market, both for cash transactions and derivatives, to provide efficient risk management; and
3. Encouraging issuers and investors, both domestic and international, to participate in the Singapore bond market.

Naturally, the three objectives were mutually reinforcing. For example, active trading would make the yield curve more robust and draw more participants into the market, which would, in turn, raise the level of trading activity.

Building a liquid government benchmark yield curve

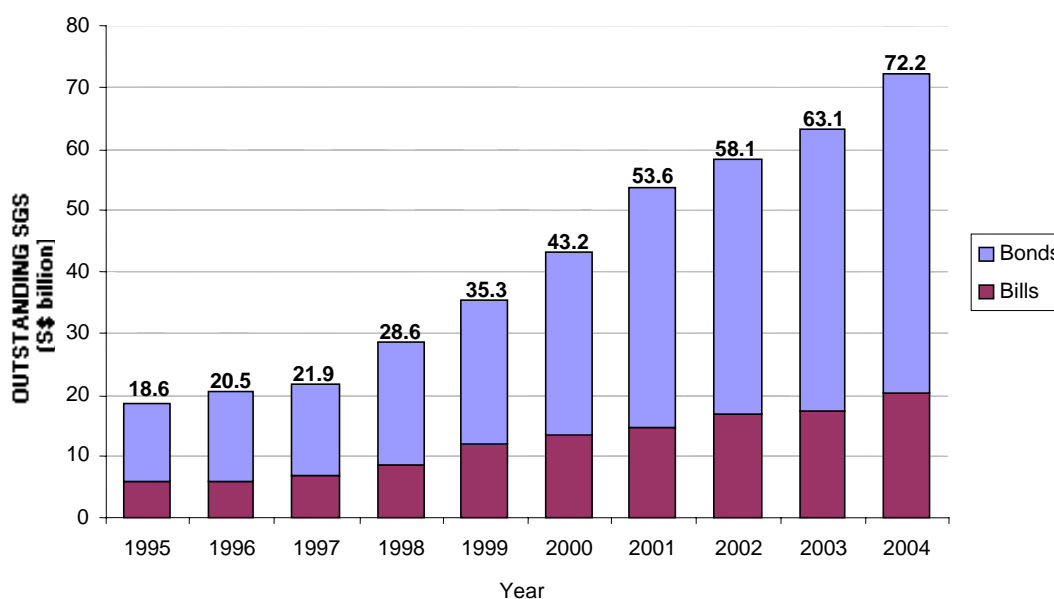
Several measures were taken to develop the benchmark yield curve, including the following:

- **Increasing the size of the SGS market.** Between 1998 and 2004, the government bonds and bills outstanding increased by 152% (Graph 1). We also extended the yield curve from seven years to 15 years. We stopped at 15 years, because we judged that that was the extent of market demand; more recently, however, demand for longer-term bonds has grown. In 2003, the Land Transport Authority issued a 20-year bond, thereby extending the yield curve further.

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- **Instituting a regular issuance calendar with two- and five-year auctions twice a year, and a seven-, ten- and 15-year auction once a year.** The calendar is announced in advance.
- **Augmenting key issues.** This means re-opening some issues that were designated as benchmarks and buying back others. Market feedback suggested that a minimum issue size of S\$2bn might be needed for active trading. Thus, issues that were smaller were bought back to concentrate liquidity in the larger issues.
- **Implementation of Electronic Applications for Primary Dealers.** We introduced the SGS Electronic Applications Facility (eApps) in January 2002. This internet-based platform has provided a convenient interface for Primary Dealers (PDs) to submit their bids, and has shortened processing times, allowing auction results to be announced within one hour after the application deadline.
- In July this year, we launched the SGS Electronic Trading Platform, which publishes transactions on a real-time basis, thereby further increasing the transparency of the yield curve.

Graph 1
Singapore's government bond market
 (SGD billions)



Source: MAS.

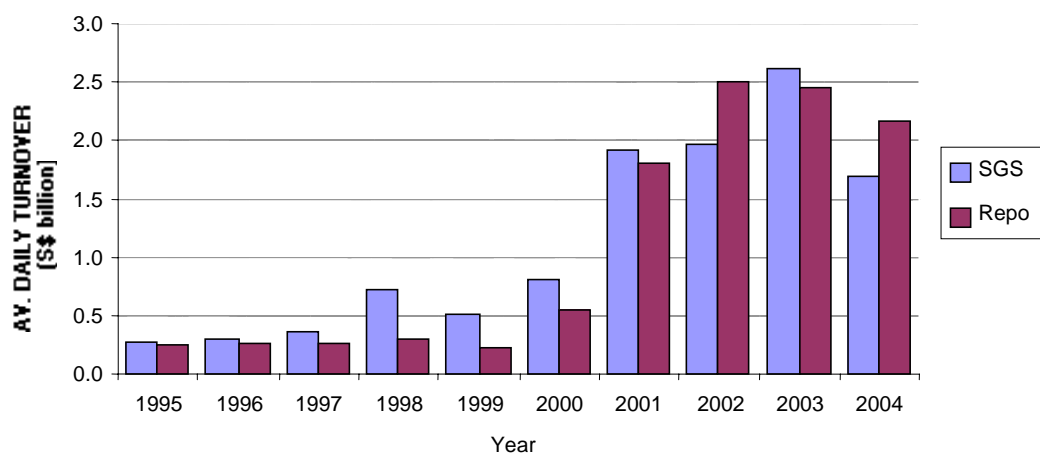
Fostering the growth of an active secondary market

A number of measures have been taken to encourage SGS trading (see Graph 2):

- **Market-making obligation.** The 11 SGS PDs are required to make two-way prices to each other for a standard lot size of SGD 5 million, and must agree on the appropriate bid-ask spread for each bond tenure.
- **SGS repo facility.** To encourage market-making, a SGS repo facility has been introduced so that PDs can borrow securities to cover their short positions. This arrangement allows PDs to hold less inventory.

- **Delivery versus payment.** SGS transactions are settled real-time on a delivery-versus-payment (DvP) basis on the MAS Electronic Payments System (MEPS). MEPS is an interbank real time gross settlement system, whereby the cash proceeds from the buyer and the securities from the seller are earmarked before the exchange is simultaneously carried out. This helps to reduce counterparty risk.
- **Code of market conduct.** A code of best practice and trading conventions for the SGS market have been established, with input from market participants. Several sets of guidelines have been published, including “Rules and Market Practices of the SGS Market” and the “SGS Repo Code of Best Practice”.
- **Repo Agreement.** To develop the repo market, MAS signed the PSA/ISMA Global Master Repo Agreement (GMRA) with the SGS PDs in 2000, and has encouraged its adoption between market players. This has established a legal framework that meets international standards, which should pave the way for more foreign participation in the market.
- **Derivatives trading.** Derivatives also play an important role in improving the liquidity of the secondary market. A short-term interest-rate futures contract and a five-year SGS futures contract were launched in 2001, but neither was well-traded. Market participants prefer the interest-rate swap (IRS) market, whose daily trading volume has now exceeded that of the SGS market. In 2004, the average daily volume of IRSs traded in the interbank market reached SGD 3.7 billion, triple the volume in 2001.

Graph 2
Average daily turnover volume: SGSs and Repos
 (SGD billions)



Source: MAS.

Encouraging issuers and investors, both domestic and international

Before 1998, the main obstacle to foreign participation in the Singapore debt market was the MAS's policy of discouraging the internationalisation of the Singapore dollar. This policy was encapsulated in MAS Notice 621 (later renamed Notice 757), which restricted offshore borrowings denominated in Singapore dollars to SGD 5 million, and prohibited Singapore-based financial institutions from trading Singapore dollar derivatives, including IRSs and options, with non-residents.

To attract foreign investors and issuers, this policy has been progressively liberalised. No longer do we have any restriction on Singapore-based financial institutions trading with non-financial institutions. Restrictions have also been lifted on the trading of IRSs, asset swaps, cross-currency swaps and options. Two restrictions remain, however. First, lending to non-resident financial institutions is still capped at SGD 5 million per institution. Second, non-resident financial institutions can raise any

amount of Singapore dollars through the debt issuance, provided that the proceeds are swapped into foreign currency before the funds repatriated. Feedback from market participants indicates that neither restriction impedes genuine capital market activity.

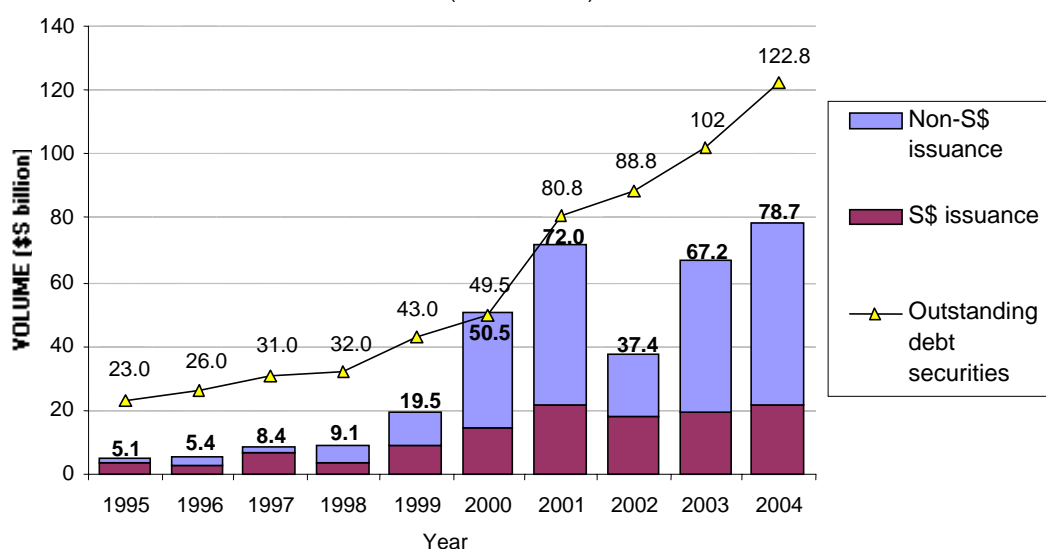
Prospectus requirements for issuing bonds in Singapore have also been streamlined. An issuer can now make multiple offers of separate tranches of debentures under a debenture issuance programme, provided that it registers with the MAS a base prospectus that is applicable for the entire programme. For each subsequent offer of debentures under the programme, the issuer will only need to lodge with the MAS a brief pricing statement containing information specific to that particular offer. The validity of a base prospectus has been extended from six months from the date of initial registration to 24 months. To ensure that material and current information is disclosed for subsequent offers of debentures made under the programme, issuers will be allowed to update or include new information in the base prospectus without triggering the refund provisions when there is no subsisting offer.

There are also new provisions to cater for offers of continuously issued structured notes. Specifically, we regard each note as part of a debenture issuance programme if the general characteristics of the notes offered are mostly the same (offer-specific details can differ). In this case, the base prospectus relating to the offer is valid for 24 months. We recognise, however, that there are practical difficulties for the issuer in lodging a pricing statement before such an offer. Therefore, we have exempted financial institutions offering continuously issued structured notes from the requirement to lodge and register a pricing statement with the MAS. The proviso to this exemption is that the issuing financial institution must give the investor a transaction note setting out the offer details prior to the purchase or subscription and a confirmation receipt thereafter. These new streamlined disclosure requirements ensure that proper risk and product disclosures are made available to investors.

Since the International Finance Corporation's (IFC) bond issue in 1998, which provided the market with a strong signalling effect, we have seen more than 160 foreign entities issuing SGD bonds. These include financial institutions, such as Bayerische Hypovereinsbank AG; supra-nationals, such as the Asian Development Bank; agencies such as Freddie Mac; and multinational corporations, such as GE Capital.

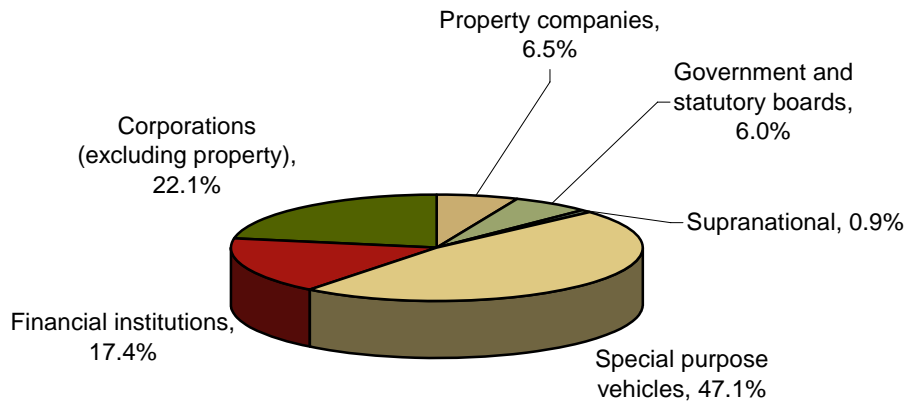
Besides foreign issuers, we have also encouraged local institutions, particularly quasi-government entities, to issue bonds (Graph 3 and 4). This has led to issues by Jurong Town Corporation, the Housing and Development Board, the Land Transport Authority, Majilis Ugama Islama Singapura and the Inland Revenue Authority of Singapore.

Graph 3
**Corporate bond market:
 New issuance and outstanding debt**
 (SGD billions)



Source: MAS Annual Debt Market Survey.

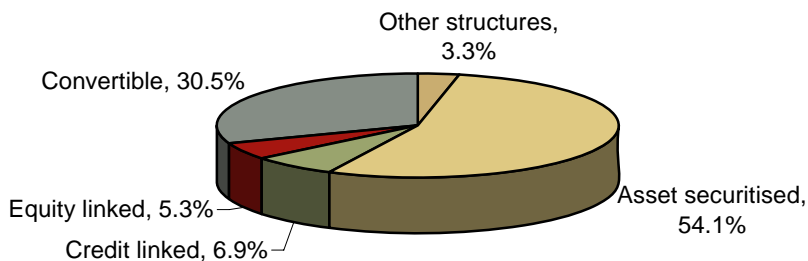
Graph 4
Profile of SGD corporate bond issuers, 2004



Source: MAS Annual Debt Market Survey

In recent years, the market for structured debt products has grown substantially. Structured debt made up almost 60% of total SGD debt issuances in 2004, and included a wide range of products, such as asset-securitised debt, credit-linked debt, equity-linked debt, convertible debt, as well as other lesser-known structures, such as total return notes and range accrual notes (see Graph 5). The diversity of instruments signals increased sophistication and risk appetite on the part of the local investor base, a necessary ingredient in developing the breadth of our debt market.

Graph 5
Profile of SGD structured debt issues, 2004



Source: MAS Annual Debt Market Survey.

3. Issues and challenges

The three objectives outlined in Section 2 have been achieved, and are responsible for the progress of Singapore's bond market thus far. The next phase of bond market development will have to focus on expanding the range of participants and instruments.

Small and medium-sized enterprises

While the corporate bond market has rapidly gained favour as a source of finance for Singapore's largest corporations, it has remained relatively inaccessible to small and medium-sized enterprises (SMEs). Individual SME borrowings are typically small, making the cost of issuing a bond uneconomical; therefore, most SMEs still rely on banks for their funding needs. One way to overcome this problem is to aggregate SME loans into asset-backed securities. In Singapore, the government has done this through the launch of an SME ACCESS Loan Scheme, which has created a well-diversified portfolio of SME credits from participating banks. The scheme is expected to generate some SGD 300 million worth of SME loans for securitisation. (It is worth noting that securitisation of SME loans in Japan and Korea has proved very successful.) The securitisation of SME loans is not without problems, though. A key challenge will be to convince banks to give up potentially profitable loans for pooling in the scheme. There is also the issue of "adverse selection", whereby banks keep the choicest loans for themselves and pass on the rest for securitisation.

Foreign participation

Foreign investors and issuers can add to the breadth and depth of an emerging market. However, even in freely tradable markets, attracting foreign participation can be challenging. Some of the most commonly cited deterrents to foreign participation are small size; a non-level playing field between locals and foreigners; lack of price/information transparency; and the absence of a securities borrowing facility. These issues have to be addressed.