SYSTEM DESIGN SPECIFICATION
FOR
EAPPS, EAUCTION AND ERF
[CMTB AND SGS (INFRA)]

Release 1.0
June 2021

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RELEASE HISTORY

RELEASE NUMBER	DATE (MM,YYYY)	ASSOCIATED CHANGE REQUEST NUMBER	BRIEF SUMMARY OF CHANGES
1.0	06,2021	CuR-MAS-SBA-20	First Release
1.1	04,2022	CuR-MAS-SBA-22	Section 4 and Annex A.4 - SGS Issuance/Redemption amount computation

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Contents

1   INTRODUCTION

1.1   Purpose

This document is to describe the system design of the new type of Treasury Bills – CMTB and longer tenor SGS Bonds – SGS (Infra)

1.2   Intended Audience

This technical document is intended for Designer and Programmer within MAS eApps, eAuction and ERF Project

1.3   Supporting Materials

- eApps SDS v6_15.doc
- auction SDS v5.13.doc
- MAS ERF Detailed Design Specification ver 1.7.doc

1.4   Definitions and Acronyms

TERM	DESCRIPTION
MAS	Monetary Authority of Singapore
CL	Crimsonlogic Pte Ltd
SGS	Singapore Government Securities
CMTB	Cash Management Treasury Bills
SGS (MD)	SGS (Market Development)
SGS (Infra)	SGS (Infrastructure)
Green SGS (Infra)	Green SGS (Infrastructure)
MDD	Monetary & Domestic Markets Management Department
PD	Primary Dealer

1.5   Module Dependency

NA

1.6   Configuration Files

NA

1.7   Constraints

IBM JDK 1.8, 64bit
IBM WebSphere Application Server 8.5.5.18

2   Cash Management Treasury Bills

2.1   eApps

2.1.1   Overview

- CMTB allows only competitive bids
- CMTB bid submission allowed only for institutional investors (i.e., Retail bid submission is not allowed for CMTB)
- CMTB issue code starts with '**BA**'
- Tenor for CMTB can be 1 to 181 days

2.1.2   Issuance Calendar

- CMTBs should not be entered into eApps Issuance Calendar to avoid PDs inadvertently opening up CMTBs for retail
- eApps sends the Issuance Calendar data for T-Bills, SGS (MD) and SGS (Infra) to the PDs and Website

2.1.3   Announcement

2.1.3.1 CMTB Announcement page

Both T-Bills and CMTB announcement page will be similar except that the title will be displayed as "Cash Management Treasury Bills" instead of "Singapore Government Treasury Bills", and the following labels will be shown differently for CMTB.

- **Non-competitive application will be removed for CMTB.**
- **Foot Note**

No changes to the T-Bills announcement page.

Sample announcement page for **CMTB** as attached

CMTB_Announceme
nt.pdf

2.1.3.2 Public Announcement - CMTB issues will be shown in a new table "Cash Management Treasury Bills"

Announcement of Auctions for Securities

11 Jun 21

Latest

- **MAS Bills**

Announcement Date	Issue Code	Description	Issue Date	Auction Date
10/06/2021	MXS8000H	24W MAS 2021 DUE 121221MXS	17/06/2021	11/06/2021

- **Floating Rate Notes**

Announcement Date	Issue Code	Description	Issue Date	Auction Date
10/02/2021	M168000H	182D FRN 2021 DUE 140821MXS	17/06/2021	11/06/2021

- **Treasury Bill (6-Mth)** No Issues Available

- **Cash Management Treasury Bills**

Announcement Date	Issue Code	Description	Issue Date	Auction Date
10/06/2021	BA11034H	180D CMTB 2021 DUE 231121 BA1	17/06/2021	11/06/2021

- **Treasury Bill (1-Yr)/SGS Bond**

Announcement Date	Issue Code	Description	Issue Date	Auction Date
10/06/2021	BY11004H	365D TBILL 2021 DUE 110622 BY1	17/06/2021	11/06/2021
10/06/2021	NA31100X	50YR BOND 2071 DUE 010771 NA31	01/07/2021	11/06/2021
10/06/2021	NC31200X	50YR BOND 2071 DUE 010771 NC21	01/07/2021	11/06/2021

2.1.4   Subscription

2.1.4.1 CMTB Subscription

By selecting "**Subscription**" in the main menu, PDs/MDD will see the following screen with the list of securities open for submission.

All open CMTB securities will be shown in a new table "Cash Management Treasury Bills"

List of Securities

Click on the issue code to subscribe:

MAS Bills				
Security Code	Security Description	Issue Date	Closing Date	Issue Size
MXS8000H	24W MAS 2021 DUE 121221MXS	17/06/2021	11/06/2021	1,300,000,000

Floating Rate Notes				
Security Code	Security Description	Issue Date	Closing Date	Issue Size
M168000H	182D FRN 2021 DUE 140821MXS	17/06/2021	11/06/2021	1,300,000,000

T Bills				
Security Code	Security Description	Issue Date	Closing Date	Issue Size
BY11004H	365D TBILL 2021 DUE 110622 BY1	17/06/2021	11/06/2021	1,300,000,000

Cash Management Treasury Bills				
Security Code	Security Description	Issue Date	Closing Date	Issue Size
BA11034H	180D CMTB 2021 DUE 231121 BA1	17/06/2021	11/06/2021	1,400,000,000

SGS Bonds				
Security Code	Security Description	Issue Date	Closing Date	Issue Size
NA31100X	50YR BOND 2071 DUE 010771 NA31	01/07/2021	11/06/2021	1,400,000,000
NC31200X	50YR BOND 2071 DUE 010771 NC21	01/07/2021	11/06/2021	1,400,000,000

By selecting on the security code hyperlink under CMTB, a blank application form for CMTB submission will be shown.

"Type of applicant" dropdown will not be having "Individual" for CMTB.

APPLICATION FOR SECURITIES

Help

180D CMTB 2021 DUE 231121 BA1 BA11034H to be issued on 17/06/2021

	Nominal amount ($)	Competitive	Yield
1.		Y	
2.		Y	
3.		Y	
4.		Y	
5.		Y	

(The yield for competitive bids must be in percentage terms up to 2 decimal places.)

Type of applicant: NIL

Full name of applicant: (For non-bank only)

Applicant's address:

Securities account no. with MAS: (e.g.9999)

The alloted securities will be transfered to the Bank account.

Bank's reference no.: 7171-

Primary Dealer's token user id: C7171T02

Important: By clicking the 'Submit' button below, you are indicating your agreement to be bound by the terms and conditions set out in the SGS Electronic Application Service Agreement.

Submit   Clear

On clicking the **Help** link at the top for CMTB, the attached pdf will be shown for the instruction on how to submit the e-Tender form.

instruct_cmtb.pdf

Click on the "Submit" button to submit the application. The validations will be performed based on the user inputs in the application form. The validation error messages (if any) will be shown as follows.

APPLICATION FOR SECURITIES

Please re-enter the entries labeled in red

We either had trouble understanding those fields, or need additional information.

- For row 1 of Bid section, 'Nominal Amount' must not be empty!
- Select the 'Type of Applicant'!
- Securities account no. must be entered!
- Bank's reference no. must not be empty!

180D CMTB 2021 DUE 231121 BA1 BA11034H to be issued on 17/06/2021

Nominal Amount ($)	Competitive	Yield
1.	Y	
2.	Y	
3.	Y	
4.	Y	
5.	Y	

(The yield for competitive bids must be in percentage terms up to 2 decimal places.)

Type of applicant: NIL

Full name of applicant: (For non-bank only)

Applicant's address:

Securities account no. with MAS: (e.g.9999)

The alloted securities will be transfered to the Bank   account.

Bank's reference no.: 7171-

Primary Dealer's token user id: C7171T02

Important: By clicking the 'Submit' button below, you are indicating your agreement to be bound by the terms and conditions set out in the SGS Electronic Application Service Agreement.

Submit   Clear

The following confirmation page will be shown to the user if there is no validation error in the application submission.

Please Confirm Your Application.

- You submitted an application for security code: BA11034H
- Your user id with eApps is: C7171T02.
- Date/Time: 10-06-2021 14:22:49.
- Please click on the button below to confirm your application.

180D CMTB 2021 DUE 231121 BA1 BA11034H to be issued on 17/06/2021

Nominal amount ($)	Competitive	Yield
1. 1,000,000	Y	1.05

Type of applicant:	Primary Dealer
Application Type:	CASH

Securities account no. with MAS:	7171
Bank name:	DBS BANK LTD

The alloted securities will be transfered to the bank account with MAS.

Bank's reference no.: 7171-1

Confirm   Cancel

Click on the "Confirm" button to submit the application. The Transaction Success page will be shown as below.

Transaction Succeeded.

- Your application has been accepted. Please print a copy for reference.
- Token User Id: C7171T02.
- Security Code: BA11034H.
- Date/Time: 10-06-2021 14:23:12.
- Transaction reference no. is 00001.

180D CMTB 2021 DUE 231121 BA1 BA11034H to be issued on 17/06/2021

Nominal amount ($)	Competitive	Yield
1. 1,000,000	Y	1.05

Type of applicant:	Primary Dealer
Application Type:	CASH

Securities account no. with MAS:	7171
Bank name:	DBS BANK LTD

The alloted securities will be transfered to the bank account with MAS.

Bank's reference no.: 7171-1

Return   Print

2.1.4.1.1   Validation rules

CMTB Bids submission validation rules are as follows

1. Only Competitive Bid is acceptable
2. Retail Bid submission is not allowed
3. The above 2 validations will be done only in eApps Online submission and not for files uploaded/received via STFP by PDs
4. CASH is the default application Type for CMTB
5. For other input fields, T-Bills validation rules applies for CMTBs as well (Refer Section 2 – A.4 in "eApps SDS v6_15.doc")
6. Currently, the bid submission function for MAS-Bills/T-Bills/CMTB/SGS (MD) and SGS (Infra) is **configured not to accept** negative yield in eApps. This configuration can be changed when required

2.1.4.2 Submission Inquiry

By selecting on "**Submission Inquiry**" in the main menu, PDs/MDD will see the following screen with the list of securities to view submissions.

All open CMTB securities will be shown in a new table "Cash Management Treasury Bills"

List of Securities

Click on the issue code to view tender submissions:

MAS Bills				
Security Code	Security Description	Issue Date	Closing Date	Issue Size
MXS8000H	24W MAS 2021 DUE 121221MXS	17/06/2021	11/06/2021	1,300,000,000

Floating Rate Notes				
Security Code	Security Description	Issue Date	Closing Date	Issue Size
M168000H	182D FRN 2021 DUE 140821MXS	17/06/2021	11/06/2021	1,300,000,000

T Bills				
Security Code	Security Description	Issue Date	Closing Date	Issue Size
BY11004H	365D TBILL 2021 DUE 110622 BY1	17/06/2021	11/06/2021	1,300,000,000

Cash Management Treasury Bills				
Security Code	Security Description	Issue Date	Closing Date	Issue Size
BA11034H	180D CMTB 2021 DUE 231121 BA1	17/06/2021	11/06/2021	1,400,000,000

SGS Bonds				
Security Code	Security Description	Issue Date	Closing Date	Issue Size
NA31100X	50YR BOND 2071 DUE 010771 NA31	01/07/2021	11/06/2021	1,400,000,000
NC31200X	50YR BOND 2071 DUE 010771 NC21	01/07/2021	11/06/2021	1,400,000,000

By selecting on the security code hyperlink under CMTB, the CMTB Tender submission by the PDs/MAS will be shown.
- PDs will only be able to view its own submission.
- MDD will be able to view all PDs and MAS submission.

Tender Submissions of Securities

Security Code	Bank's Ref No	Transaction Ref No	Submission Method	Received Date and Time	
BA11034H	25001	00002	E	10/06/2021 02:39:53 pm	Withdraw
BA11034H	71711	00001	E	10/06/2021 02:23:12 pm	

2.1.5   Auction Results

2.1.5.1 Auction Results - PDs

By selecting "**Auction Results**" in the main menu, PDs will see the following screen with the list of securities with auction results. Only auction results for today or recent one month will be shown.

All CMTB securities will be shown in a new table "Cash Management Treasury Bills"

Auction Result of Securities

- Auction result for today:

MAS Bills

Security Code	Security Name	Security Tender Date
MXS8000H	24W MAS 2021 DUE 121221MXS	11/06/2021

Floating Rate Notes

Security Code	Security Name	Security Tender Date
M168000H	182D FRN 2021 DUE 140821MXS	11/06/2021

T Bills

Security Code	Security Name	Security Tender Date
BY11004H	365D TBILL 2021 DUE 110622 BY1	11/06/2021

Cash Management Treasury Bills

Security Code	Security Name	Security Tender Date
BA11034H	180D CMTB 2021 DUE 231121 BA1	11/06/2021

SGS Bonds

Security Code	Security Name	Security Tender Date
NA31100X	50YR BOND 2071 DUE 010771 NA31	11/06/2021
NC31200X	50YR BOND 2071 DUE 010771 NC21	11/06/2021

- Auction result of recent one month:

Cash Management Treasury Bills

Security Code	Security Name	Security Tender Date
BA11033H	180D CMTB 2021 DUE 231121 BA1	12/05/2021

By selecting on any security code hyperlink, the auction results for the PDs will be shown.

No changes required for CMTB.

```
DBS BANK LTD                                      ACCOUNT 7171
ISSUE:BA11034H 180D CMTB 2021 DUE 231121 BA1

     WE ARE PLEASED TO INFORM YOU THAT YOUR TENDER(S)/APPLICATION(S)
FOR GOVERNMENT SECURITIES HAS/HAVE BEEN ACCEPTED AS FOLLOWS:-

                        PRICE     NOMINAL
                        PER SGD100/ AMOUNT        AMOUNT           APPLICATION  CPF/SRS
APPLICANT               YIELD/SPREAD ALLOTTED     PAYABLE          TYPE         ACCOUNT NO
---------               --------   ------------   ---------------  -----------  ------------
 BANKS
-------------------
DBS BANK LTD             99.530  / 10,000         9,953.0          CASH
                        1.08
DBS BANK LTD             99.530  / 1,000,000      995,300.0        CASH
                        1.08
                                  -------------   ---------------
                        SUB-TOTAL 1,010,000       1,005,253.0


                        TOTAL    1,010,000        1,005,253.0


OPERATIONS AND CUSTODY ADMINISTRATION DIVISION
FINANCE DEPARTMENT
THE MONETARY AUTHORITY OF SINGAPORE
```

2.1.5.2 Auction Results – MDD

By selecting "**Auction Results**" in the main menu, MDD will see the following screen with the list of securities with auction results. Only auction results for today or recent one month will be shown.

All CMTB securities will be shown in a new table "Cash Management Treasury Bills"

Auction Result of Securities

Overall Results

- Auction result for today:

MAS Bills		
Security Code	Security Name	Security Tender Date
MXS8000H	24W MAS 2021 DUE 121221MXS	11/06/2021

Floating Rate Notes		
Security Code	Security Name	Security Tender Date
M168000H	182D FRN 2021 DUE 140821MXS	11/06/2021

T Bills		
Security Code	Security Name	Security Tender Date
BY11004H	365D TBILL 2021 DUE 110622 BY1	11/06/2021

Cash Management Treasury Bills		
Security Code	Security Name	Security Tender Date
BA11034H	180D CMTB 2021 DUE 231121 BA1	11/06/2021

SGS Bonds		
Security Code	Security Name	Security Tender Date
NA31100X	50YR BOND 2071 DUE 010771 NA31	11/06/2021
NC31200X	50YR BOND 2071 DUE 010771 NC21	11/06/2021

- Auction result of recent one month:

Cash Management Treasury Bills		
Security Code	Security Name	Security Tender Date
BA11033H	180D CMTB 2021 DUE 231121 BA1	12/05/2021

By selecting the "Overall Results" hyperlink, MDD will be shown with the list of securities to view the overall results.

All CMTB securities will be shown in a new table "Cash Management Treasury Bills"

Result of Auctions for Securities

11 Jun 21

<u>Latest</u>

Publish   To publish result of auctions conducted on 11/06/2021.

- **MAS Bills**

Issue Code	Description	Issue Date	Auction Date
MXS8000H	24W MAS 2021 DUE 121221MXS	17/06/2021	11/06/2021

- **Floating Rate Notes**

Issue Code	Description	Issue Date	Auction Date
M168000H	182D FRN 2021 DUE 140821MXS	17/06/2021	11/06/2021

- **Treasury Bill (6-Mth)** No Issues Available

- **Cash Management Treasury Bills**

Issue Code	Description	Issue Date	Auction Date
BA11034H	180D CMTB 2021 DUE 231121 BA1	17/06/2021	11/06/2021

- **Treasury Bill (1-Yr)/SGS Bond**

Issue Code	Description	Issue Date	Auction Date
BY11004H	365D TBILL 2021 DUE 110622 BY1	17/06/2021	11/06/2021
NA31100X	50YR BOND 2071 DUE 010771 NA31	01/07/2021	11/06/2021
NC31200X	50YR BOND 2071 DUE 010771 NC21	01/07/2021	11/06/2021

By selecting the security code hyperlink, MDD will be able to view the auction results for the particular security.

Both T-Bills and CMTB result page will be similar except that the title will be displayed as "Cash Management Treasury Bills" instead of "Singapore Government Treasury Bills", and the following labels will be removed for CMTB

- Amount Allotted to Non-Competitive Applications
- % of Non-Competitive Applications Allotted

Overall Results page for **CMTB:**

THE MONETARY AUTHORITY OF SINGAPORE

23 Aug 21

Results of auction of taxable book-entry Cash Management Treasury Bills to be issued on 24 August 2021

Tenor	100 Days
Total Amount Allotted	SGD 1,300,000,000
Total Amount Applied	SGD 1,320,000,000
Cut-off Yield & Price	2.00% p.a. and 99.452%
Median Yield & Price	2.00% p.a. and 99.452%
Average Yield & Price	2.00% p.a. and 99.452%
% of Competitive Applications at Cut-off Allotted	100%
Issue Code	BA00100A
ISIN Code	SGSCMTB00011
Maturity Date	02 December 2021

MAS Auction Results for **CMTB**:

No changes required for CMTB.

Login as The Monetary Authority of Singapore (C2500T08)

```
The Monetary Authority of Singapore                 ACCOUNT 2500
ISSUE:BA11034H 180D CMTB 2021 DUE 231121 BA1

     WE ARE PLEASED TO INFORM YOU THAT YOUR TENDER(S)/APPLICATION(S)
FOR GOVERNMENT SECURITIES HAS/HAVE BEEN ACCEPTED AS FOLLOWS:-

                        PRICE     NOMINAL
                        PER SGD100/ AMOUNT      AMOUNT            APPLICATION  CPF/SRS
APPLICANT               YIELD/SPREAD ALLOTTED   PAYABLE           TYPE         ACCOUNT NO
---------               --------   ------------  --------------   -----------  ------------
 BANKS
-------------------
The Monetary Authority of Singa99.530  /  2,000,000    1,990,600.0         CASH
                         1.08
                                   ------------  ---------------
                        SUB-TOTAL  2,000,000     1,990,600.0


                        TOTAL      2,000,000     1,990,600.0


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```

2.1.6   Closing Price

2.1.6.1 Closing Price Input and Report Generation

Closing Price for CMTB would be entered using **Yield**

- It follows the logic on how the prices are currently entered for T-Bills
- The computation of the closing price for CMTB follows the logic on how the closing prices are computed for T-Bills
- There is no "benchmark" issues for CMTBs
- Sample closing price submission screen

ClosingPrice_Submi
ssion.pdf

2.1.6.2 View daily price spread

On selecting "**View daily price spread**" in Admin Daily Price page, the attached page will be displayed.

ViewDailyPriceSpre
ad.pdf

This Daily Price Spread is used during Closing Price Submission and Run today's exception report based on the remaining tenor for T-Bill/MAS-Bill/Bonds/FRN/CMTB
- Any data entered by the PDs that exceeds the predefined 'Against yesterday', 'Bid/Ask spread' and 'High/Low spread', a warning message will be displayed to the user
- Based on the remaining days to maturity for the CMTB issue, the corresponding Yield Spread under the T-Bill/MAS-Bill section will be used for the validation.

Closing price submission for CMTB will be entered using Yield similar to T-Bills. Refer Section 2 A.19 "eApps SDS v6_15.docx" for more details.

2.2   eAuction

2.2.1   Overview

Tender submissions and Auction are done through eAuction system for CMTB.

2.2.2   Tender Submission

The following rules applies for CMTB in the pages New Tender, Update Tender, Verify Tender and Reactivate Tender.

- Only Competitive Bid is acceptable for CMTB
- Retail Bid submission is not allowed for CMTB

There are no changes to other field validations.

All the existing T-Bills Tender submission rules apply for CMTB also.
(Refer Section 2 – A.4 in "auction SDS v5.13.doc")

New tender submission page viewed by MAS – No changes in the UI screen

2.3 ERF

- Enhanced Repo Facility process are done through ERF system for CMTB.
- No changes required for CMTB

2.4 AGD Letter/Interface file

2.4.1 AGD Letter

1. For CMTB, the issue name will be displayed as follows:
   a. 180-DAY **CMTB** 2021 BA11034H

2. No changes required for existing T-Bills

3. No changes to the following letter content
   a. We append below details of issue of Government Securities and Treasury Bills on DD MMM YYYY:

4. The sentence at the bottom of the letter will change to:
   a. For GOV Bond and Treasury Bills, please note that AG a/c X with us will be credited/debited on DD MMM YYYY.
   b. If there is only Treasury Bills with no GOV Bond, 'For Treasury Bills, please note that AG a/c X with us will be credited/debited on DD MMM YYYY.'
   c. If there is only GOV Bond with no Treasury Bills, 'For GOV Bond, please note that AG a/c X with us will be credited/debited on DD MMM YYYY.'

5. No changes to the order of display (i.e., Issuance, Reopen Issuance, Interest to be paid and Redemption)
   a. Issuance – order by issue date and security code
   b. Reopen Issuance – order by issue date and security code
   c. Interest to be paid – sorted by security code
   d. Redemption – sorted by maturity date and security code

6. Sample AGD Letter

20210617_AGDFile
(3).txt

2.4.2 AGD Interface File

1. For the static data file ("IT030048.TXT" and "IT032048.TXT"):
   a. The SD Type for CMTB will be "**CMTB**".
   b. No changes for the rest of the fields and format.

Interface File	Types of debts instruments	SD Type
T-Bills	T-Bills	TBILL
	Cash Management Treasury Bills	CMTB

2. Sample AGD Interface file

IT030048.TXT   IT032048.TXT

3.   No changes for the files ("IT040048.TXT","IT042048.TXT","IT050048.TXT" and "IT052048.TXT")

2.5   CMTB Outstanding amount

- Outstanding amount of CMTB would be combined along with T-Bills.

- No changes required for CMTB as the issue code starts with 'B' similar to T-Bills.

3   SGS (Infrastructure)

3.1   eApps

3.1.1   Overview

- The existing SGS Bonds will be referred as SGS(MD)
- SGS (Infra) issue code starts with '**N**' similar to SGS(MD) and supports longer tenors of 40 and 50 years
- The 2nd digit of the issue code (N**A**21200F) represents the **tenor**
  - **2**: 2Y
  - **5**: 5Y
  - X: 10Y
  - Y: 15Y
  - Z: 20Y
  - A: 30Y
  - **B: 40Y**
  - **C: 50Y**
- SGS issue codes will follow the same convention, **except for the 4th last character**, used to differentiate between SGS (Market Development) vs SGS (Infrastructure) vs Green SGS (Infrastructure)

Bonds	Issue Code
SGS (Market Development)	NXXX**1**00X (current standard)
SGS (Infrastructure)	NXXX**2**00X
Green SGS (Infrastructure)	NXXX**3**00X

- Green SGS (Infra) is a subset of SGS (Infra), so all SGS (Infra) changes applies to Green SGS (Infra) also.

3.1.2   Issuance Calendar

- SGS (Infra) issue details are entered into eApps Issuance Calendar
- eApps sends the Issuance Calendar data for T-Bills, SGS (MD) and SGS (Infra) to the PDs and Website
- MAS Website uses the "Issue Type" to identify the type of securities

Type of Security	Issue Code	Issue Type for Issuance Calendar in MAS Website (ABA0021_ISSUE_TYPE)	Issue Type for Issuance Calendar file sent to PDs (ABA0021_PD_ISSUE_TYPE)
SGS (Market Development)	NXXX**1**00X (current standard)	B	B
SGS (Infrastructure)	NXXX**2**00X	I	B
Green SGS (Infrastructure)	NXXX**3**00X	G	B
T-Bills	BXXXXXXX	T	T

- Refer Annex A.3 for the table used to store Issue Type for MAS Website and PDs

3.1.3　Announcement

3.1.3.1 SGS (Infra) Announcement page

Both SGS (MD) and SGS (Infra) announcement page will be similar except the below line.

- **This is a public notice issued pursuant to Section 17 of the Significant Infrastructure Government Loan Act.**

No changes to the SGS (MD) announcement page.

Sample announcement page for **SGS (Infra)** as attached

SGS_Infra_Announc
ement.pdf

3.1.3.2 Public Announcement – SGS (Infra) issues will be shown under existing "Treasury Bill(1-yr)/SGS Bond"

Announcement of Auctions for Securities

11 Jun 21

Latest

- **MAS Bills**

Announcement Date	Issue Code	Description	Issue Date	Auction Date
10/06/2021	MXS8000H	24W MAS 2021 DUE 121221MXS	17/06/2021	11/06/2021

- **Floating Rate Notes**

Announcement Date	Issue Code	Description	Issue Date	Auction Date
10/02/2021	M168000H	182D FRN 2021 DUE 140821MXS	17/06/2021	11/06/2021

- **Treasury Bill (6-Mth)** No Issues Available

- **Cash Management Treasury Bills**

Announcement Date	Issue Code	Description	Issue Date	Auction Date
10/06/2021	BA11034H	180D CMTB 2021 DUE 231121 BA1	17/06/2021	11/06/2021

- **Treasury Bill (1-Yr)/SGS Bond**

Announcement Date	Issue Code	Description	Issue Date	Auction Date
10/06/2021	BY11004H	365D TBILL 2021 DUE 110622 BY1	17/06/2021	11/06/2021
10/06/2021	NA31100X	50YR BOND 2071 DUE 010771 NA31	01/07/2021	11/06/2021
10/06/2021	NC31200X	50YR BOND 2071 DUE 010771 NC21	01/07/2021	11/06/2021

3.1.4   Subscription

3.1.4.1 SGS (Infra) Subscription

By selecting "**Subscription**" in the main menu, PDs/MDD will see the following screen with the list of securities open for submission.

All open SGS(Infra) securities will be shown under the existing table "SGS Bonds" along with SGS (MD) securities.

No changes required for SGS (Infra).

List of Securities

Click on the issue code to subscribe:

MAS Bills				
Security Code	Security Description	Issue Date	Closing Date	Issue Size
MXS8000H	24W MAS 2021 DUE 121221MXS	17/06/2021	11/06/2021	1,300,000,000

Floating Rate Notes				
Security Code	Security Description	Issue Date	Closing Date	Issue Size
M168000H	182D FRN 2021 DUE 140821MXS	17/06/2021	11/06/2021	1,300,000,000

T Bills				
Security Code	Security Description	Issue Date	Closing Date	Issue Size
BY11004H	365D TBILL 2021 DUE 110622 BY1	17/06/2021	11/06/2021	1,300,000,000

Cash Management Treasury Bills				
Security Code	Security Description	Issue Date	Closing Date	Issue Size
BA11034H	180D CMTB 2021 DUE 231121 BA1	17/06/2021	11/06/2021	1,400,000,000

SGS Bonds				
Security Code	Security Description	Issue Date	Closing Date	Issue Size
NA31100X	50YR BOND 2071 DUE 010771 NA31	01/07/2021	11/06/2021	1,400,000,000
NC31200X	50YR BOND 2071 DUE 010771 NC21	01/07/2021	11/06/2021	1,400,000,000

By selecting on the security code hyperlink under SGS (Infra), a blank application form for SGS (Infra) submission will be shown.

SGS (Infra) uses the same application form of SGS (MD).
No changes required for SGS (Infra).

APPLICATION FOR SECURITIES

Help

50YR BOND 2071 DUE 010771 NC21 NC31200X to be issued on 01/07/2021

	Nominal amount ($)	Competitive	Yield
1.		▼	
2.		▼	
3.		▼	
4.		▼	
5.		▼	

(The yield for competitive bids must be in percentage terms up to 2 decimal places.)

Type of applicant: **NIL** ▼

Full name of applicant: _____ (For non-bank only)

Applicant's address: _____

NRIC no./Passport no.: _____

Nationality: _____ ▼

Application Type: **Select** ▼

CPF/SRS account no.: _____ (For applicants using CPF/SRS funds only)

CDP account no.: _____

Securities account no. with MAS: _____ (e.g.9999)

The alloted securities will be transfered to the **Bank** ▼ account.

Bank's reference no.: 7171- _____

Primary Dealer's token user id: C7171T02

Important: By clicking the 'Submit' button below, you are indicating your agreement to be bound by the terms and conditions set out in the SGS Electronic Application Service Agreement.

[Submit] [Clear]

Click on the "Submit" button to submit the application. The validations will be performed based on the user inputs in the application form. The validation error messages (if any) will be shown as follows.

No changes required for SGS (Infra).

APPLICATION FOR SECURITIES

Please re-enter the entries labeled in red
We either had trouble understanding those fields, or need additional information.

- For row 1 of Bid section, 'Nominal Amount' must not be empty!
- Select the 'Type of Applicant'!
- Application Type must be selected CASH if the applicant is not an individual!
- Securities account no. must be entered!
- Bank's reference no. must not be empty!

50YR BOND 2071 DUE 010771 NC21 NC31200X to be issued on 01/07/2021

	Nominal Amount ($)	Competitive	Yield
1.		⌄	
2.		⌄	
3.		⌄	
4.		⌄	
5.		⌄	

(The yield for competitive bids must be in percentage terms up to 2 decimal places.)

Type of applicant:	NIL ⌄	
Full name of applicant:		(For non-bank only)
Applicant's address:		
NRIC no./Passport no.:		
Nationality:	⌄	
Application Type:	Select ⌄	
CPF/SRS account no.:		(For applicants using CPF/SRS funds only)
CDP account no.:		

Securities account no. with MAS: ▢ (e.g.9999)

The alloted securities will be transferred to the Bank ⌄ account.

Bank's reference no.: 7171- ▢

Primary Dealer's token user id: C7171T02

Important: By clicking the 'Submit' button below, you are indicating your agreement to be bound by the terms and conditions set out in the SGS Electronic Application Service Agreement.

Submit   Clear

The following confirmation page will be shown to the user if there is no validation error in the application submission.

No changes required for SGS (Infra).

Please Confirm Your Application.

- You submitted an application for security code: NC31200X
- Your user id with eApps is: C7171T02.
- Date/Time: 11-06-2021 12:04:08.
- Please click on the button below to confirm your application.

50YR BOND 2071 DUE 010771 NC21 NC31200X to be issued on 01/07/2021

Nominal amount ($)	Competitive	Yield
1. 1,000,000	C	1.03
2. 1,000,000	N	

Type of applicant:	Primary Dealer
Application Type:	CASH

Securities account no. with MAS:	7171
Bank name:	DBS BANK LTD

The alloted securities will be transfered to the bank account with MAS.

Bank's reference no.: 7171-1

Confirm   Cancel

Click on the "Confirm" button to submit the application. The Transaction Success page will be shown as below.

No changes required for SGS (Infra).

Transaction Succeeded.

- Your application has been accepted. Please print a copy for reference.
- Token User Id: C7171T02.
- Security Code: NC31200X.
- Date/Time: 11-06-2021 12:04:42.
- Transaction reference no. is 00001.

50YR BOND 2071 DUE 010771 NC21 NC31200X to be issued on 01/07/2021

Nominal amount ($)	Competitive	Yield
1. 1,000,000	C	1.03
2. 1,000,000	N	

Type of applicant:	Primary Dealer
Application Type:	CASH

Securities account no. with MAS:	7171
Bank name:	DBS BANK LTD

The alloted securities will be transfered to the bank account with MAS.

Bank's reference no.: 7171-1

[Return] [Print]

3.1.4.1.1   Validation rules

SGS (Infra) Bids submission validation rules are the same as SGS (MD)

1.   SGS (MD) validation rules applies for SGS (Infra) as well
     (Refer Section 2 – A.4 in "eApps SDS v6_15.doc")

2.   Currently, the bid submission function for MAS-Bills/T-Bills/CMTB/SGS (MD) and SGS (Infra) is configured **not to accept** negative yield in eApps. This configuration can be changed when required.

3.1.4.2 Submission Inquiry

By selecting on "**Submission Inquiry**" in the main menu, PDs/MDD will see the following screen with the list of securities to view submissions.

All open SGS (Infra) securities will be shown under the existing table "SGS Bonds" along with SGS (MD) securities.

No changes required for SGS (Infra).

List of Securities

Click on the issue code to view tender submissions:

MAS Bills				
Security Code	Security Description	Issue Date	Closing Date	Issue Size
MXS8000H	24W MAS 2021 DUE 121221MXS	17/06/2021	11/06/2021	1,300,000,000

Floating Rate Notes				
Security Code	Security Description	Issue Date	Closing Date	Issue Size
M168000H	182D FRN 2021 DUE 140821MXS	17/06/2021	11/06/2021	1,300,000,000

T Bills				
Security Code	Security Description	Issue Date	Closing Date	Issue Size
BY11004H	365D TBILL 2021 DUE 110622 BY1	17/06/2021	11/06/2021	1,300,000,000

Cash Management Treasury Bills				
Security Code	Security Description	Issue Date	Closing Date	Issue Size
BA11034H	180D CMTB 2021 DUE 231121 BA1	17/06/2021	11/06/2021	1,400,000,000

SGS Bonds				
Security Code	Security Description	Issue Date	Closing Date	Issue Size
NA31100X	50YR BOND 2071 DUE 010771 NA31	01/07/2021	11/06/2021	1,400,000,000
NC31200X	50YR BOND 2071 DUE 010771 NC21	01/07/2021	11/06/2021	1,400,000,000

By selecting the security code hyperlink under SGS Bonds, the SGS (Infra) Tender submission by the PDs/MAS will be shown.
- PDs will only be able to view its own submission.
- MDD will be able to view all PDs and MAS submission.

Tender Submissions of Securities

Security Code	Bank's Ref No	Transaction Ref No	Submission Method	Received Date and Time	
NC31200X	25001	00002	E	11/06/2021 12:21:29 pm	Withdraw
NC31200X	71711	00001	E	11/06/2021 12:04:42 pm	

3.1.5   Auction Results

3.1.5.1 Auction Results - PDs

By selecting "**Auction Results**" in the main menu, PDs will see the following screen with the list of securities with auction results. Only auction results for today or recent one month will be shown.

All SGS (Infra) securities will be shown under existing table "SGS Bonds" along with SGS (MD) securities.

No changes required for SGS (Infra).

Auction Result of Securities

- Auction result for today:

MAS Bills

Security Code	Security Name	Security Tender Date
MXS8000H	24W MAS 2021 DUE 121221MXS	11/06/2021

Floating Rate Notes

Security Code	Security Name	Security Tender Date
M168000H	182D FRN 2021 DUE 140821MXS	11/06/2021

T Bills

Security Code	Security Name	Security Tender Date
BY11004H	365D TBILL 2021 DUE 110622 BY1	11/06/2021

Cash Management Treasury Bills

Security Code	Security Name	Security Tender Date
BA11034H	180D CMTB 2021 DUE 231121 BA1	11/06/2021

SGS Bonds

Security Code	Security Name	Security Tender Date
NA31100X	50YR BOND 2071 DUE 010771 NA31	11/06/2021
NC31200X	50YR BOND 2071 DUE 010771 NC21	11/06/2021

- Auction result of recent one month:

Cash Management Treasury Bills

Security Code	Security Name	Security Tender Date
BA11033H	180D CMTB 2021 DUE 231121 BA1	12/05/2021

By selecting on any security code hyperlink, the auction results for the PDs will be shown.

No changes required for SGS (Infra).

```
DBS BANK LTD                                      ACCOUNT 7171
ISSUE:NC31200X 50YR BOND 2071 DUE 010771 NC21

        WE ARE PLEASED TO INFORM YOU THAT YOUR TENDER(S)/APPLICATION(S)
FOR GOVERNMENT SECURITIES HAS/HAVE BEEN ACCEPTED AS FOLLOWS:-

                         PRICE    NOMINAL
                         PER SGD100/ AMOUNT       AMOUNT            APPLICATION  CPF/SRS
APPLICANT                YIELD/SPREAD ALLOTTED     PAYABLE           TYPE         ACCOUNT NO
---------                --------  ------------   ---------------   -----------  ------------
 BANKS
-------------------
DBS BANK LTD             99.985  / 1,000,000      999,850.0         CASH
                         1.03
DBS BANK LTD             99.985  / 1,000,000      999,850.0         CASH
                         1.03    N
                                  -------------   ---------------
                         SUB-TOTAL  2,000,000     1,999,700.0


                           TOTAL   2,000,000      1,999,700.0


OPERATIONS AND CUSTODY ADMINISTRATION DIVISION
FINANCE DEPARTMENT
THE MONETARY AUTHORITY OF SINGAPORE
```

3.1.5.2 Auction Results – MDD

By selecting "**Auction Results**" in the main menu, MDD will see the following screen with the list of securities with auction results. Only auction results for today or recent one month will be shown.

All SGS (Infra) securities will be shown under existing table "SGS Bonds" along with SGS (MD) securities.

No changes required for SGS (Infra).

Auction Result of Securities

Overall Results

- Auction result for today:

MAS Bills

Security Code	Security Name	Security Tender Date
MXS8000H	24W MAS 2021 DUE 121221MXS	11/06/2021

Floating Rate Notes

Security Code	Security Name	Security Tender Date
M168000H	182D FRN 2021 DUE 140821MXS	11/06/2021

T Bills

Security Code	Security Name	Security Tender Date
BY11004H	365D TBILL 2021 DUE 110622 BY1	11/06/2021

Cash Management Treasury Bills

Security Code	Security Name	Security Tender Date
BA11034H	180D CMTB 2021 DUE 231121 BA1	11/06/2021

SGS Bonds

Security Code	Security Name	Security Tender Date
NA31100X	50YR BOND 2071 DUE 010771 NA31	11/06/2021
NC31200X	50YR BOND 2071 DUE 010771 NC21	11/06/2021

- Auction result of recent one month:

Cash Management Treasury Bills

Security Code	Security Name	Security Tender Date
BA11033H	180D CMTB 2021 DUE 231121 BA1	12/05/2021

By selecting the "Overall Results" hyperlink, MDD will be shown with the list of securities to view the overall results.

All SGS (Infra) securities will be shown under existing table "Treasury Bill (1-Yr)/SGS Bond" along with 1-yr T-Bill and SGS (MD) securities.

No changes required for SGS (Infra).

Result of Auctions for Securities

11 Jun 21

Latest

Publish | To publish result of auctions conducted on 11/06/2021.

- **MAS Bills**

Issue Code	Description	Issue Date	Auction Date
MXS8000H	24W MAS 2021 DUE 121221MXS	17/06/2021	11/06/2021

- **Floating Rate Notes**

Issue Code	Description	Issue Date	Auction Date
M168000H	182D FRN 2021 DUE 140821MXS	17/06/2021	11/06/2021

- **Treasury Bill (6-Mth)** No Issues Available

- **Cash Management Treasury Bills**

Issue Code	Description	Issue Date	Auction Date
BA11034H	180D CMTB 2021 DUE 231121 BA1	17/06/2021	11/06/2021

- **Treasury Bill (1-Yr)/SGS Bond**

Issue Code	Description	Issue Date	Auction Date
BY11004H	365D TBILL 2021 DUE 110622 BY1	17/06/2021	11/06/2021
NA31100X	50YR BOND 2071 DUE 010771 NA31	01/07/2021	11/06/2021
NC31200X	50YR BOND 2071 DUE 010771 NC21	01/07/2021	11/06/2021

By selecting the security code hyperlink, MDD will be able to view the Overall results.

Both SGS (Infra) and SGS(MD) result page will be similar.

Overall Results page for **SGS (Infra):**

No changes required for SGS (Infra).

THE MONETARY AUTHORITY OF SINGAPORE

11 Jun 21

Results of auction of taxable book-entry Singapore Government Bonds to be issued on 01 July 2021.

Tenor	Approx. 50 Years
Total Amount Allotted	SGD 1,400,000,000
Amount Allotted to Non-Competitive Applications	SGD 2,000,000
Amount Allotted to MAS	SGD 2,000,000
Total Amount Applied	SGD 4,000,000
Coupon Rate	1.000% p.a.
Cut-off Yield & Price	1.03% p.a. and 99.985%
Median Yield & Price	999.99% p.a. and 16.750%
Average Yield & Price	1.02% p.a. and 99.990%
% of Competitive Applications at Cut-off Allotted	100%
% of Non-Competitive Applications Allotted	100%
Issue Code	NC31200X
ISIN Code	SGSNC3100571
Maturity Date	01 July 2071

MAS Auction Results for **SGS (Infra):**

No changes required for SGS (Infra).

Login as The Monetary Authority of Singapore (C2500T08)

```
The Monetary Authority of Singapore                 ACCOUNT 2500
ISSUE:NC31200X 50YR BOND 2071 DUE 010771 NC21

     WE ARE PLEASED TO INFORM YOU THAT YOUR TENDER(S)/APPLICATION(S)
FOR GOVERNMENT SECURITIES HAS/HAVE BEEN ACCEPTED AS FOLLOWS:-

                        PRICE      NOMINAL
                        PER SGD100/ AMOUNT      AMOUNT            APPLICATION  CPF/SRS
APPLICANT               YIELD/SPREAD ALLOTTED   PAYABLE           TYPE         ACCOUNT NO
---------               --------    ------------ ---------------  -----------  ------------
 BANKS
-------------------
The Monetary Authority of Singa99.985  /  1,000,000   999,850.0          CASH
                         1.03
The Monetary Authority of Singa99.985  /  1,000,000   999,850.0          CASH
                         1.03    N
                                 ------------- ---------------
                        SUB-TOTAL 2,000,000    1,999,700.0

                        TOTAL     2,000,000    1,999,700.0


OPERATIONS AND CUSTODY ADMINISTRATION DIVISION
FINANCE DEPARTMENT
THE MONETARY AUTHORITY OF SINGAPORE
```

3.1.6   Closing Price

3.1.6.1 Closing Price Input and Report Generation

Closing Price for SGS (Infra) would be entered using **Price**

- It follows the logic on how the prices are currently entered for SGS (MD)
- The benchmark for SGS (MD) and SGS (Infra) are same, and they will be group together based on the tenors
- New benchmarks for 40 year and 50 year tenors would be added
- The benchmark issue for SGS would be the most recently auctioned issue of the SGS (MD) or SGS (Infra) based on the tenor sent from MEPS+ for new issuance or reopen issuance.
- Non-benchmark issue will not be the benchmark issue in closing price even though it is the most recently auctioned issue
- The computation of the closing price for SGS (Infra) follows the logic on how the closing prices are computed for SGS (MD)
- Sample closing price submission screen

ClosingPrice_Submission.pdf

3.1.6.2 View daily price spread

On selecting "**View daily price spread**" in Admin Daily Price page, the attached page will be displayed for tenors up to >49 yrs.

ViewDailyPriceSpread.pdf

This Daily Price Spread is used during Closing Price Submission and Run today's exception report based on the remaining tenor for T-Bill/MAS-Bill/Bonds – SGS (MD) and SGS(Infra) /FRN/CMTB
- Any data entered by the PDs that exceeds the predefined 'Against yesterday', 'Bid/Ask spread' and 'High/Low spread', a warning message will be displayed to the user
- Based on the remaining days to maturity for the SGS (Infra) issue, the corresponding Price Spread under the Bond/FRN section will be used for the validation.
- Daily price spread details are stored in **ABA0015_PRICE_SPREAD** table

Closing price submission for SGS (Infra) will be entered using Price similar to SGS Bonds (MD). Refer Section 2 A.19 "eApps SDS v6_15.docx" for more details.

3.2   eAuction

3.2.1   Overview

Tender submissions and Auction are done through eAuction system for SGS (Infra).

3.2.2   Tender Submission

All the existing SGS (MD) Tender submission rules apply for SGS (Infra) also.
(Refer Section 2 – A.4 in "auction SDS v5.13.doc")

New tender submission page viewed by MAS – No changes in the UI screen

3.3   ERF

3.3.1   Overview

Enhanced Repo Facility process are done through ERF system for SGS (Infra).

3.3.2   ERF: Frontend Modules (Accessed by MDD)

3.3.2.1 Maintain Rates

- Maintain Rates process is same as earlier (Refer Section 3.2 in "MAS ERF Detailed Design Specification ver 1.7.doc")
- New repo rates for longer tenors up to 50 years would be added for SGS (Infra)
- The rates are stored in the internal database table **AQA0112_DUR_RATE**
- On clicking Maintain Rates in ERF, attached screen will be shown

ERF_Maintain_Rate
s.pdf

3.3.2.2 View Rates

- View Rates process is same as earlier (Refer Section 3.3 in "MAS ERF Detailed Design Specification ver 1.7.doc")
- New repo rates for longer tenors up to 50 years would be viewed for SGS (Infra)
- The rates are retrieved from the internal database table **AQA0112_DUR_RATE**
- On clicking View Rates in ERF, attached screen will be shown

ERF_View_Rates.pd
f

3.3.2.3 Modify Application Limits

- Modify application limits process is same as earlier (Refer Section 3.14 in "MAS ERF Detailed Design Specification ver 1.7.doc")
- New limit for Max per PD all issues will be added for SGS (Infra) and Green SGS (Infra)
- Existing limit for Max per PD all issues will be used for SGS (MD) and other securities type MAS-Bills/FRN/T-Bills/CMTB
- On clicking Modify App Limits in ERF, below screen will be shown

- On editing the default limit value in the text field and clicking ok, below screen will be shown

- Refer Annex A.1 for the tables used to store default and current application limits.

3.3.2.4 View Overall Results

- View Overall Results process is same as earlier (Refer Section 3.11 in "MAS ERF Detailed Design Specification ver 1.7.doc")
- Display the ERF results in separate table for SGS (MD) and SGS (Infra) based on the issue code in the Specific/Required issue
    - o SGS (MD) table will display all securities type MAS-Bills/FRN/T-Bills/CMTB/SGS (MD) except SGS (Infra) and Green SGS (Infra)
    - o SGS (Infra) table will display only SGS (Infra) and Green SGS (Infra) security results
- On clicking View Overall Results in ERF, below screen will be shown

- On clicking on Submit, overall results will be shown

Results of MAS Repo Facility on 11/06/2021

SGS(MD)

Maturity date	Issue code	Amount allotted ($ mil)	Clean price($) / yield(%)	Dirty price($)	Modified duration
23.11.21	BA11034H	11	0.50	99.778	0.44
12.12.21	M168000H	14	0.00	99.540	0.46
12.12.21	MXS8000H	15	0.00	99.752	0.49
12.06.22	BY11004H	11	0.50	99.503	0.99
01.07.61	NA31100X	15	99.50	99.54	32.84
Total		66			

SGS(Infra)

Maturity date	Issue code	Amount allotted ($ mil)	Clean price($) / yield(%)	Dirty price($)	Modified duration
01.07.71	NC31200X	50	99.50	99.54	39.3
Total		50			

- If no issue code found for SGS (MD) or SGS (Infra) "**No results**" will be shown under the corresponding table.

Daily Rates
• **MAINTAIN RATES**
• **VIEW RATES**
Issues
• **UPLOAD ISSUES (CSV FILE)**
• **VIEW OPENED ISSUES**
Applications
• **UPLOAD PD'S APP (CSV FILE)**
• **VIEW UPLOADED PD APP**
• **VIEW SUBMITTED PD APP**
• **TRIGGER ALLOTMENT**
• **RETRIGGER ALLOTMENT**
• **VIEW OVERALL RESULTS**
• **DOWNLOAD REPORTS**
• **RELEASE RESULTS**
User Account
• **ADD USER**
• **REMOVE USER**
• **MODIFY USER RIGHTS**
Maintenance
• **MODIFY CUTOFF TIME**
• **MODIFY APP LIMITS**

Results of MAS Repo Facility on 10/05/2021

SGS(MD)

Maturity date	Issue code	Amount allotted ($ mil)	Clean price($) / yield(%)	Dirty price($)	Modified duration
16.07.21	BA11002H	1	0.00	100.000	0.18
24.11.21	M113008B	2	0.00	99.740	0.53
17.11.25	N511001T	1	99.50	97.61	4.95
01.08.26	BS76542E	1	0.50	97.386	5.2
01.03.71	NC21800X	2	99.50	99.86	32.12
Total		7			
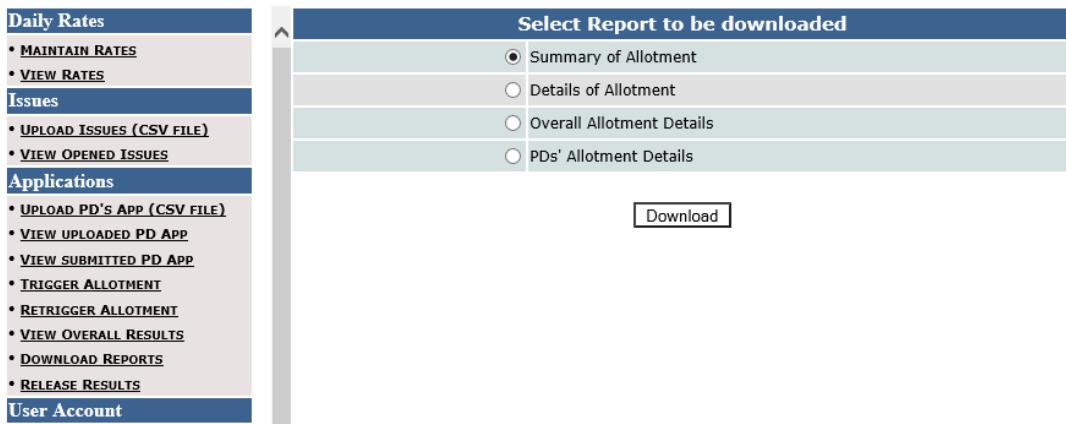
SGS(Infra)

No results

Back   Print

3.3.2.5 Download Reports

- Download Reports process is same as earlier (Refer Section 3.12 in "MAS ERF Detailed Design Specification ver 1.7.doc")
- Display the ERF results in separate table for SGS (MD) and SGS (Infra) based on the issue code in the Specific/Required issue
    - SGS (MD) table will display all securities type MAS-Bills/FRN/T-Bills/CMTB/SGS (MD) except SGS (Infra) and Green SGS (Infra)
    - SGS (Infra) table will display only SGS (Infra) and Green SGS (Infra) security results
- On clicking Download Reports in ERF, below screen will be shown

- Sample "**Summary of Allotment**" report - separate table for SGS (MD) and SGS (Infra)

repoSumm.csv

- Sample "**Details of Allotment**" report - separate table for SGS (MD) and SGS (Infra)

repoTrans.csv

- Sample "**PD's Allotment Details**" report - separate table for SGS (MD) and SGS (Infra)

7171_repoPDAllot.csv

- Sample "**Overall Allotment Details**" - SGS (Infra) issue code will be displayed at the end of the report

repoAllot.csv

- If no issue code found for SGS (MD) or SGS (Infra) corresponding table will be not shown in the csv report.

3.3.3　eApps: Frontend Modules (Accessed by PDs)

3.3.3.1 View Allotment Results

- View Allotment Results process is same as earlier (Refer Section 4.6 in "MAS ERF Detailed Design Specification ver 1.7.doc")
- Display the ERF allotment results in separate table for SGS (MD) and SGS (Infra) based on the issue code in the Specific/Required issue
  - SGS (MD) table will display all securities type MAS-Bills/FRN/T-Bills/CMTB/SGS (MD) except SGS (Infra) and Green SGS (Infra)
  - SGS (Infra) table will display only SGS (Infra) and Green SGS (Infra) security results
- On clicking View allotment results in eApps, below screen will be shown

Login as DBS BANK LTD (C7171T02)

View Allotment Results	
Date of allotment :	11 Jun 2021 ∨

Only results for the past 10 days are available

Back　Submit

This application will take 1 day to process.

If you encounter any problems with this e-Service, please contact us at 1800-225-8247, or email helpdesk@mas.gov.sg.

- On clicking on Submit, allotment results for the PDs will be shown

Login as DBS BANK LTD (C7171T02)

Application results for DBS BANK LTD - 11 Jun 2021	

SGS (MD)

No.	Value Date	Specific Issue	Amount Applied	Nominal Amount	Exception Status	Modified Duration	Clean Price/ Yield	Dirty Price	Reversal Date	Repo Rate	General Issue	Nominal Amount	Modified Duration	Clean Price/ Yield	Dirty Price
					Specific Collateral Repo						General Collateral Repo				
1	14.06.21	BA11034H	10,000,000	10,000,000		0.44	0.50	99.778	15.06.21	-0.03	NX14001T	9,553,000	3.08	99.50	104.45
2	14.06.21	M168000H	10,000,000	10,000,000		0.46	99.50	99.540	15.06.21	-0.04	M182002F	9,997,000	4.31	99.50	99.570
3	14.06.21	NA31100X	10,000,000	10,000,000		32.84	99.50	99.54	15.06.21	-0.29	M182002F	9,997,000	4.31	99.50	99.570
4	14.06.21	MXS8000H	10,000,000	10,000,000		0.49	0.50	99.752	15.06.21	-0.06	N516702Z	9,969,000	5.76	99.50	100.06
5	14.06.21	BY11004H	10,000,000	10,000,000		0.99	0.50	99.503	15.06.21	-0.08	N514100H	9,944,000	8.49	99.50	100.06
6	14.06.21	M168000H	4,000,000	4,000,000		0.46	99.50	99.540	15.06.21	-0.04	M182002F	3,999,000	4.31	99.50	99.570
7	14.06.21	MXS8000H	5,000,000	5,000,000		0.49	0.50	99.752	15.06.21	-0.06	N516702Z	4,985,000	5.76	99.50	100.06
			59,000,000	59,000,000								58,444,000			

SGS (Infra)

No.	Value Date	Specific Issue	Amount Applied	Nominal Amount	Exception Status	Modified Duration	Clean Price/ Yield	Dirty Price	Reversal Date	Repo Rate	General Issue	Nominal Amount	Modified Duration	Clean Price/ Yield	Dirty Price
					Specific Collateral Repo						General Collateral Repo				
1	14.06.21	NC31200X	10,000,000	10,000,000		39.3	99.50	99.54	15.06.21	-0.39	M126012C	9,997,000	0.42	99.50	99.570
2	14.06.21	NC31200X	30,000,000	30,000,000		39.3	99.50	99.54	15.06.21	-0.37	NX14001T	28,590,000	3.08	99.50	104.45
3	14.06.21	NC31200X	5,000,000	5,000,000		39.3	99.50	99.54	15.06.21	-0.37	NX14001T	4,765,000	3.08	99.50	104.45
			45,000,000	45,000,000								43,352,000			

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- If no issue code found for SGS (MD) or SGS (Infra) "**No results available**" will be shown under the corresponding table.

Login as DBS BANK LTD (C7171T02)

Application results for DBS BANK LTD - 10 May 2021

SGS (MD)

No.	Value Date	Specific Issue	Amount Applied	Nominal Amount	Exception Status	Modified Duration	Clean Price/ Yield	Dirty Price	Reversal Date	Repo Rate	General Issue	Nominal Amount	Modified Duration	Clean Price/ Yield	Dirty Price
			-------------- Specific Collateral Repo --------------								----- General Collateral Repo -----				
1	11.05.21	NC21800X	1,000,000	1,000,000		32.12	99.50	99.86	12.05.21	-0.0	NX14001T	965,000	3.16	99.50	103.52
2	11.05.21	M113008B	1,000,000	1,000,000		0.53	99.50	99.740	12.05.21	-0.0	M182002F	998,000	4.38	99.50	99.960
3	11.05.21	BA11002H	1,000,000	1,000,000		0.18	0.00	100.000	12.05.21	-0.0	N516702Z	1,001,000	5.85	99.50	99.95
			3,000,000	3,000,000								2,964,000			

SGS (Infra)

No results available

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3.3.3.2 View Overall Results

- View Overall Results process is same as earlier (Refer Section 4.7 in "MAS ERF Detailed Design Specification ver 1.7.doc")
- Display the ERF overall results in separate table for SGS (MD) and SGS (Infra) based on the issue code in the Specific/Required issue
  - SGS (MD) table will display all securities type MAS-Bills/FRN/T-Bills/CMTB/SGS (MD) except SGS (Infra) and Green SGS (Infra)
  - SGS (Infra) table will display only SGS (Infra) and Green SGS (Infra) security results
- On clicking View overall results in eApps, below screen will be shown

<div align="right">Login as DBS BANK LTD (C7171T02)</div>

View Overall Results	
Date of allotment :	11 Jun 2021 ▾

Only results for the past 10 days are available

<div align="center">Back   Submit</div>

<div align="center">This application will take 1 day to process.</div>

<div align="center">If you encounter any problems with this e-Service, please contact us at 1800-225-8247, or email helpdesk@mas.gov.sg.</div>

- On clicking on Submit, overall results will be shown

<div align="right">Login as DBS BANK LTD (C7171T02)</div>

Results of MAS Enhanced Repo Facility on 11 Jun 21

SGS (MD)

Maturity date	Issue code	Amount allotted ($ mil)	Clean price / yield	Dirty price	Modified duration
23 Nov 21	BA11034H	11	0.50	99.778	0.44
12 Dec 21	M168000H	14	99.50	99.540	0.46
12 Dec 21	MXS8000H	15	0.50	99.752	0.49
12 Jun 22	BY11004H	11	0.50	99.503	0.99
01 Jul 61	NA31100X	15	99.50	99.54	32.84
Total		**66**			

SGS (Infra)

Maturity date	Issue code	Amount allotted ($ mil)	Clean price / yield	Dirty price	Modified duration
01 Jul 71	NC31200X	50	99.50	99.54	39.3
Total		**50**			

<div align="center">Back   Print</div>

- If no issue code found for SGS (MD) or SGS (Infra) "**No results available**" will be shown under the corresponding table.

Results of MAS Enhanced Repo Facility on 10 May 21

SGS (MD)

Maturity date	Issue code	Amount allotted ($ mil)	Clean price / yield	Dirty price	Modified duration
16 Jul 21	BA11002H	1	0.00	100.000	0.18
24 Nov 21	M113008B	2	99.50	99.740	0.53
01 Dec 21	BS76542E	1	0.50	97.386	5.2
17 Nov 25	N511001T	1	99.50	97.61	4.95
01 Mar 71	NC21800X	2	99.50	99.86	32.12
Total		**7**			

SGS (Infra)

No results available

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3.3.4   ERF: Backend Modules

3.3.4.1 ERF Allotment

- Allotment process is same as earlier except for the below (Refer Section 5.4 to 5.8 in "MAS ERF Detailed Design Specification ver 1.7.doc")

- "Max limit per PD for all issues" is different for SGS (MD) and SGS (Infra)
  - SGS (MD) includes all securities type MAS-Bills/FRN/T-Bills/CMTB/SGS (MD) except SGS (Infra) and Green SGS (Infra)

- The new limit defined for SGS (Infra) check will be applied only for SGS (Infra) and Green SGS (Infra) issue codes based on issue code in Specific/Required issues.

- The existing limit for "Max limit per PD for all issues" will be applied for other securities type except SGS (Infra) and Green SGS (Infra) based on issue code in Specific/Required issues.

- For the sample reports generated during the allotment, refer Section 3.3.2.5 Download Reports in this document

- Refer Annex A.1 for the table that stores the current application limits which is used during the ERF allotment

3.3.4.2 Update Application Limits

- Update application limits process is same as earlier along with the below (Refer Section 5.11 in "MAS ERF Detailed Design Specification ver 1.7.doc")

- New limit "Max limit per PD for all issues" defined for SGS (Infra) will reset the current application limits with the default application limits on a daily basis.

3.4   AGD Letter/Interface file

3.4.1   AGD Letter

1. For SGS (Infra), the issue name will be displayed as follows:
   a.   1.0% 50-YR **SGS(INFRA)** 2031 NC31200X

2. For Green SGS (Infra), the issue name will be displayed as follows:
   a.   1.0% 50-YR **GREEN SGS(INFRA)** 2031 NC31300X

3. No changes required for existing SGS Bonds (MD)

4. No changes to the following letter content
   a.   We append below details of issue of Government Securities and Treasury Bills on DD MMM YYYY:

5. The sentence at the bottom of the letter will be added to include :
   a.   For SGS(INFRA), please note that AG a/c X with us will be credited/debited on DD MMM YYYY.
   b.   For GREEN SGS(INFRA), please note that AG a/c X with us will be credited/debited on DD MMM YYYY.
   c.   The respective sentence will not be displayed if there is no SGS(INFRA) or GREEN SGS(INFRA)

6. No changes to the order of display (i.e., Issuance, Reopen Issuance, Interest to be paid and Redemption)
   a.   Issuance – order by issue date and security code
   b.   Reopen Issuance – order by issue date and security code
   c.   Interest to be paid – sorted by security code
   d.   Redemption – sorted by maturity date and security code

7. Sample AGD Letter

20210617_AGDFile
(3).txt
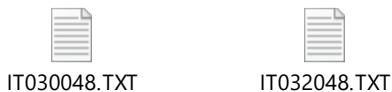
3.4.2 AGD Interface File

1. For the static data file ("IT030048.TXT" and "IT032048.TXT"):
    a.   The SD Type for SGS (Infra) will be "**SGSI**".
    b.   No changes for the rest of the fields and format.

Interface File	Types of debts instruments		SD Type
SGS	SGS (Market Development)		SGS
	SGS (Infrastructure)		SGSI
	Green SGS (Infrastructure)	SGSG	

2. Sample AGD Interface file

IT030048.TXT   IT032048.TXT

3. No changes for the files ("IT040048.TXT","IT042048.TXT","IT050048.TXT" and "IT052048.TXT")

3.5   SGS (Infra) and Green SGS (Infra) Outstanding amount by month and year

- Outstanding amount for SGS (MD), SGS (Infra) and Green SGS (Infra) are different
- SGS (Infra) and Green SGS (Infra) Outstanding amount will be computed on the first working day of the month along with T-Bills and SGS (MD)
- The job will calculate the sums of issue size for SGS(Infra) and Green SGS (Infra) which are issued and not matured as of end of previous month.
  i.e. ABA0001_ISSUE_DATE <= Last day of previous month and ABA0001_MATURITY_DATE > Last day of previous month

- Example:

  For the below SGS (Infra) issues, the outstanding amount would be calculated as per the SGS (Infra) Oustanding amount table:

SGS (Infra) Issue code	Issue Size	Issue Date	Maturity Date
NC71200X	500 million	01st Aug 1971	01st Aug 2021
NB81200X	500 million	01st Sep 1981	01st Sep 2021
NB16200X	500 million	01st Oct 2016	01st Oct 2056
NC21200X	500 million	01st Nov 2021	01st Nov 2071
NB21200X	500 million	01st Dec 2021	01st Dec 2061

SGS (Infra) Oustanding amount table:

Calculated on	Year	Month	SGS(Infra) Outstanding amount
1st Jul 2021	2021	06	1.5 billion
2nd Aug 2021	2021	07	1.5 billion
1st Sep 2021	2021	08	1 billion
1st Oct 2021	2021	09	500 million
1st Nov 2021	2021	10	500 million
1st Dec 2021	2021	11	1 billion
3rd Jan 2022	2021	12	1.5 billion

- Refer Annex A.2 for the table used to store SGS (Infra) outstanding amount by month and year

4   SGS Issuance/Redemption amount for each Security Category by month and year

- SGS Issuance/Redemption amount for each Security Category will be computed on the first working day of the month similar to Outstanding SGS.
- The job will calculate the sum of issue size for each Security Category as **Issuance amount** which are issued between start and end of previous month.
  i.e. Sum of ABA0001_ISSUE_SIZE for ABA0001_ISSUE_DATE >= First day of previous month and ABA0001_ISSUE_DATE <= Last day of previous month
- The job will calculate the sum of issue size for each Security Category as **Redemption amount** which are matured between start and end of previous month.
  i.e. Sum of ABA0001_ISSUE_SIZE for ABA0001_MATURITY_DATE >= First day of previous month and ABA0001_MATURITY_DATE <= Last day of previous month
- Every month there will be 5 records inserted, one for each Security Category whether there is any Issuance/Redemption amount or not for the specific category
- Based on the ABA0001_SECURITY_CODE value in ABA0001_SECURITY_MASTER, different Security Category are identified as below

Security Category	Issue Code
TBILLS	Issue Code starts with 'B' and does not start with 'BA'
CMTB	Issue Code starts with 'BA'
SGS-MD	Issue Code starts with 'N' and 4th last character is not '2' and '3'
SGS-INFRA	Issue Code starts with 'N' and 4th last character is '2'
GreenSGS-INFRA	Issue Code starts with 'N' and 4th last character is '3'

- Refer Annex A.4 for the table used to store SGS Issuance/Redemption amount for each Security Category by month and year

Job Details:

Job Name (to be invoked by scheduler)	issuance_redemption_sgs_insert.job
Frequency	Monthly

Job Parameters	Process command
	      \<processDate\>
	
	Parameters
	\<processDate\> (optional) is the Month for which the SGS Issuance/Redemption amount will be computed, formatted as YYYYMM
	
	Examples
	
	(1) issuance_redemption_sgs_insert.job triggered by Autosys:
	
	     issuance_redemption_sgs_insert.job
	
	Under this, the job computes the SGS Issuance/Redemption amount for the previous month.
	
	(2) issuance_redemption_sgs_insert.job triggered to compute SGS Issuance/Redemption amount for a specific month.

	issuance_redemption_sgs_insert.job 202110
	Under this, the job computes SGS Issuance/Redemption amount for Input month.
	In this example, it will compute the amount for October 2021

Annex A.1 Table to store ERF Application Limits

Internal DB – To store default application limit:

```
CREATE TABLE "MS9ABA"."AQA0104_ERF_SYSTEM_PARM"
 (    "AQA0104_DEFAULT_CUT_OFF_TIME" DATE,
      "AQA0104_UPDATED_DT" DATE,
      "AQA0104_MIN_LIMIT_PER_ISSUE" NUMBER(20,0) DEFAULT 1000000 NOT NULL ENABLE,
      "AQA0104_MAX_LIMIT_PER_ISSUE" NUMBER(20,0) DEFAULT 50000000 NOT NULL ENABLE,
      "AQA0104_MAX_LIMIT_ALL_ISSUE" NUMBER(20,0) DEFAULT 500000000 NOT NULL ENABLE,
      "AQA0104_MAX_LIMIT_ALL_INFRA" NUMBER(20,0) DEFAULT 500000000 NOT NULL ENABLE
 ) SEGMENT CREATION IMMEDIATE
 PCTFREE 10 PCTUSED 40 INITRANS 1 MAXTRANS 255
NOCOMPRESS NOLOGGING
 STORAGE(INITIAL 16384 NEXT 32768 MINEXTENTS 1 MAXEXTENTS 2147483645
 PCTINCREASE 0 FREELISTS 1 FREELIST GROUPS 1
 BUFFER_POOL DEFAULT FLASH_CACHE DEFAULT CELL_FLASH_CACHE DEFAULT)
 TABLESPACE "ABAAPP" ;
```

External DB – To store the current application limit:

```
CREATE TABLE "MS9ABA"."ABA0606_SYSTEM_PARM"
 (    "ABA0606_CUT_OFF_TIME" DATE,
      "ABA0606_VIEW_RESULTS" CHAR(1 BYTE) DEFAULT 'N',
      "ABA0606_MIN_LIMIT_PER_ISSUE" NUMBER(20,0) DEFAULT 1000000 NOT NULL ENABLE,
      "ABA0606_MAX_LIMIT_PER_ISSUE" NUMBER(20,0) DEFAULT 50000000 NOT NULL ENABLE,
      "ABA0606_MAX_LIMIT_ALL_ISSUE" NUMBER(20,0) DEFAULT 500000000 NOT NULL ENABLE,
      "ABA0606_MAX_LIMIT_ALL_INFRA" NUMBER(20,0) DEFAULT 500000000 NOT NULL ENABLE
 ) SEGMENT CREATION IMMEDIATE
 PCTFREE 10 PCTUSED 40 INITRANS 1 MAXTRANS 255
NOCOMPRESS LOGGING
 STORAGE(INITIAL 1048576 NEXT 1048576 MINEXTENTS 1 MAXEXTENTS 2147483645
 PCTINCREASE 0 FREELISTS 1 FREELIST GROUPS 1
 BUFFER_POOL DEFAULT FLASH_CACHE DEFAULT CELL_FLASH_CACHE DEFAULT)
 TABLESPACE "NETAPP" ;
```

Annex A.2 Table to store SGS Outstanding amount

External DB:

```
CREATE TABLE "MS9ABA"."ABA0025_OUTSTANDING_SGS"
 (    "ABA0025_YEAR" VARCHAR2(4 BYTE) NOT NULL ENABLE,
      "ABA0025_MONTH" VARCHAR2(15 BYTE),
      "ABA0025_TBILL" NUMBER(13,0) DEFAULT 0,
      "ABA0025_BOND" NUMBER(13,0) DEFAULT 0,
      "ABA0025_INFRA" NUMBER(13,0) DEFAULT 0,
      "ABA0025_GREEN_INFRA" NUMBER(13,0) DEFAULT 0
 ) SEGMENT CREATION IMMEDIATE
 PCTFREE 10 PCTUSED 40 INITRANS 1 MAXTRANS 255
 NOCOMPRESS LOGGING
 STORAGE(INITIAL 1048576 NEXT 1048576 MINEXTENTS 1 MAXEXTENTS 2147483645
 PCTINCREASE 0 FREELISTS 1 FREELIST GROUPS 1
 BUFFER_POOL DEFAULT FLASH_CACHE DEFAULT CELL_FLASH_CACHE DEFAULT)
 TABLESPACE "NETAPP" ;
```

Annex A.3 Table to store SGS Issuance Calendar details

External DB:

```
CREATE TABLE "MS9ABA"."ABA0021_ISSUE_CALENDAR"
 (    "ABA0021_SECURITY_CODE" VARCHAR2(8 BYTE) NOT NULL ENABLE,
      "ABA0021_ISSUE_NO" VARCHAR2(1 BYTE) NOT NULL ENABLE,
      "ABA0021_ISIN_CODE" VARCHAR2(12 BYTE),
      "ABA0021_ISSUE_TYPE" VARCHAR2(1 BYTE),
      "ABA0021_TENOR" NUMBER(3,0),
      "ABA0021_TENOR_UNIT" VARCHAR2(1 BYTE),
      "ABA0021_CURR" VARCHAR2(3 BYTE),
      "ABA0021_NEW_REOPEN" VARCHAR2(1 BYTE),
      "ABA0021_OPEN_DATETIME" DATE,
      "ABA0021_CLOSE_DATETIME" DATE,
      "ABA0021_ISSUE_DATETIME" DATE,
      "ABA0021_FLAG" VARCHAR2(1 BYTE),
      "ABA0021_PD_ISSUE_TYPE" VARCHAR2(1 BYTE),
       CONSTRAINT "PK_ABA0021_ISSUE_CALENDAR" PRIMARY KEY
("ABA0021_SECURITY_CODE", "ABA0021_ISSUE_NO")
 USING INDEX PCTFREE 10 INITRANS 2 MAXTRANS 255 COMPUTE STATISTICS
 STORAGE(INITIAL 1048576 NEXT 1048576 MINEXTENTS 1 MAXEXTENTS 2147483645
 PCTINCREASE 0 FREELISTS 1 FREELIST GROUPS 1
 BUFFER_POOL DEFAULT FLASH_CACHE DEFAULT CELL_FLASH_CACHE DEFAULT)
 TABLESPACE "NETAPP"  ENABLE
 ) SEGMENT CREATION IMMEDIATE
 PCTFREE 10 PCTUSED 40 INITRANS 1 MAXTRANS 255
 NOCOMPRESS LOGGING
 STORAGE(INITIAL 1048576 NEXT 1048576 MINEXTENTS 1 MAXEXTENTS 2147483645
 PCTINCREASE 0 FREELISTS 1 FREELIST GROUPS 1
 BUFFER_POOL DEFAULT FLASH_CACHE DEFAULT CELL_FLASH_CACHE DEFAULT)
 TABLESPACE "NETAPP" ;
```

Annex A.4 Table to store SGS Issuance/Redemption amount

External DB:

```
CREATE TABLE "MS9ABA"."ABA0033_ISSUANCE_REDEMPT_SGS"
 (  "ABA0033_YEAR" VARCHAR2(4 BYTE) NOT NULL ENABLE,
    "ABA0033_MONTH" VARCHAR2(2 BYTE),
    "ABA0033_QUARTER" VARCHAR2(2 BYTE),
    "ABA0033_SECURITY_CATEGORY" VARCHAR2(20) DEFAULT 0,
    "ABA0033_ISSUANCE_AMOUNT" NUMBER(20,0) DEFAULT 0,
    "ABA0033_REDEMPTION_AMOUNT" NUMBER(20,0) DEFAULT 0,
    UNIQUE(ABA0033_YEAR,ABA0033_MONTH,ABA0033_SECURITY_CATEGORY)
 ) SEGMENT CREATION IMMEDIATE
 PCTFREE 10 PCTUSED 40 INITRANS 1 MAXTRANS 255
 NOCOMPRESS LOGGING
 STORAGE(INITIAL 1048576 NEXT 1048576 MINEXTENTS 1 MAXEXTENTS 2147483645
 PCTINCREASE 0 FREELISTS 1 FREELIST GROUPS 1
 BUFFER_POOL DEFAULT FLASH_CACHE DEFAULT CELL_FLASH_CACHE DEFAULT)
 TABLESPACE "NETAPP" ;
```