

Appendix D – Operational Procedures for Obtaining SGD Using Foreign Currency and Foreign Currency Denominated Securities

1 Initiation of Transaction

- 1.1 The Operating Window for this type of transaction is from 2.30 pm to 3.30 pm on each Business Day.
- 1.2 During the Operating Window, an Eligible Counterparty shall first inform MDD via the official dealing lines¹ of its intention to obtain SGD at the Borrowing Rate, before submitting the confirmation of transaction details via the Reuters FX Trading system (“FXT”) or, in the event that the Eligible Counterparty cannot access or does not have access to the FXT, by email, facsimile or such other means as MDD may agree with the Eligible Counterparty.
- 1.3 MDD shall confirm the transaction details with the Eligible Counterparty via the official dealing lines² before entering into the transaction.
- 1.4 Obtaining SGD using foreign currency will be conducted as a Foreign Currency (FC) swap or collateralised loan transaction and obtaining SGD using foreign currency denominated securities will be conducted as a repurchase or collateralised loan transaction, unless otherwise specified by the Authority.
- 1.5 An Eligible Counterparty may only use foreign currencies and foreign currency denominated securities specified in the CBCA involving the provision of liquidity entered into between the Authority and the foreign central bank or monetary authority of the jurisdiction where the Eligible Counterparty is incorporated, formed or established or has business operations, for obtaining SGD. The list of eligible foreign currencies and foreign currency denominated securities, and the respective settlement date conventions are set out in paragraph 8 of this Appendix.
- 1.6 In the case of the Eligible Counterparty obtaining SGD using foreign currency through a collateralised loan transaction, the SGD interest payable by the Eligible Counterparty to the Authority on the Maturity Date shall be determined using the Borrowing Rate as specified on the Authority’s website³. The amount of foreign currency cash collateral received by the Authority on the Value Date will be returned to the Eligible Counterparty on the Maturity Date, and interest (if any) received by the Authority on the foreign currency cash collateral will be paid to the Eligible Counterparty.
- 1.7 Any repurchase or collateralised loan transaction with an Eligible Counterparty involving foreign currency denominated securities specified in a CBCA which

¹ Refer to Clause 18.3 of the Agreement.

² Refer to Clause 18.3 of the Agreement.

³ <https://www.mas.gov.sg/monetary-policy/liquidity-facilities/mas-standing-facility>

relates to the provision of liquidity entered into between the Authority and the foreign central bank or monetary authority of the jurisdiction where the Eligible Counterparty is incorporated, formed or established or has business operations, shall be transacted based on the previous Business Day's (T-1) closing prices of the securities, as published on Bloomberg and when such prices are unavailable, to be determined by the Authority.

- 1.8 A haircut shall be imposed on the FX swap, repurchase and collateralised loan transactions. Please contact the Authority at the official dealing lines⁴ for the applicable haircut.
- 1.9 Eligible Counterparties should refer to paragraphs 3 and 4 of this Appendix for sample template confirmations to be sent to the Authority via FXT and paragraph 3 to paragraph 7 for the formulae used to calculate the first and second leg settlement amounts.

2 Processing and Settlement of Transactions

- 2.1 Settlement of SGD will be through the Eligible Counterparty's RTGS Account with the Authority. Settlement of foreign currency or foreign currency denominated securities will be through the Authority's respective cash or securities account with the foreign central bank and the Eligible Counterparty's respective cash or securities account according to the pre-established SSIs.
- 2.2 The cut-off time for an Eligible Counterparty to send its confirmation⁵ of transaction details to the Finance Department of the Authority is 4.00 pm on the same day ("T"). Failure to send correct confirmations prior to the cut-off time may result in cancellation of the transactions.
- 2.3 The Eligible Counterparty shall submit an instruction to its respective cash or securities agent on T for the transfer of foreign currency or transfer of foreign currency denominated securities from the Eligible Counterparty's respective cash or securities account to the Authority's respective cash or securities account with the foreign central bank. The Authority expects notification of the successful transfer of the foreign currency or foreign currency denominated securities to the Authority's cash or securities account, by 6.35pm on T, T+1 or T+2, as the case may be, depending on the settlement convention as set out in paragraph 8 of this Appendix.

⁴ Refer to Clause 18.3 of the Agreement.

⁵ For a delivery-versus-payment process, a fax/email confirmation for foreign currency denominated securities repurchase transactions and a SWIFT MT300 FX Confirmation for FC swap transactions are required. For a non-delivery-versus-payment process, where foreign currency denominated securities are used as collateral, a fax/email confirmation for the securities and a MT320 for the SGD borrowing are required; where foreign currencies are used as collateral, a MT320 Fixed Loan or Deposit Confirmation for the foreign currency loan and a MT320 Fixed Loan or Deposit Confirmation for the SGD borrowing are required. Refer to Clause 18.7 and 18.8 of the Agreement. Note that all Primary Dealers should send confirmation of transaction details via email only.

- 2.4 After the Finance Department of the Authority has received notification of the successful transfer on T, T+1 or T+2, as the case may be, the SGD will be released into the Eligible Counterparty's RTGS Account with the Authority on T, T+1 or T+2, as the case may be. If the full amount of the foreign currency or foreign currency denominated securities fails to be transferred or the Authority receives notification of the successful transfer after 6.35pm on T, T+1 or T+2, as the case may be, the transaction may be cancelled and any foreign currency or foreign currency denominated securities which has been transferred will be returned to the Eligible Counterparty.
- 2.5 The Eligible Counterparty shall have SGD available in its RTGS Account with the Authority by 12.00 pm on T+1, T+2 or T+3, as the case may be, for settlement of the second leg of the transaction.
- 2.6 Upon confirmation of receipt of SGD, the Finance Department of the Authority shall submit an instruction to the foreign central bank for the transfer of foreign currency or return of foreign currency denominated securities, from the Authority's respective cash or securities account with the foreign central bank to the Eligible Counterparty's respective cash or securities account.

3 Sample Confirmation to Obtain S\$10 Million Using Foreign Currencies if Conducted as a FC Swap

MAS SF Obtaining of SGD Funds	
Total Amount	S\$10M
FX Swap Implied SGD Borrowing Rate	xx.xxxxxx
Borrowing Rate	xx.xx %
Start Date	01/07/09 (dd/mm/yyyy)
End Date	02/07/09 (dd/mm/yyyy)
FC	FCxx.xxM
Spot Rate (FCSGD)	x.xxxxxx
Haircut	x%
Effective Spot Rate (FCSGD)	x.xxxxxx
Forward Rate (FCSGD)	x.xxxxxx
First leg settlement amount	FCxxx.xxM
Second leg settlement amount	FCxxx.xxM

See below

Rate can be found at the following [link](#).

See below

Contact the Authority for applicable haircut

See below

The FX Swap Implied SGD Borrowing Rate (SR) shall be imputed based on the following formula:

$$Borrowing\ Rate = \frac{YDC_A \times 100}{BD} \left[\left\langle \left(\frac{-SR/10000}{SPOT'} + 1 \right) \left(\frac{FCOR \times BD}{YDC_B \times 100} + 1 \right) \right\rangle - 1 \right],$$

- Swap Rate (SR) is the implied foreign currency swap points (rounded to two (2) decimal places);
- Borrowing Rate can be found at the Authority's website⁶;
- YDC_A is the number of days in a year (day count convention for SGD is 365);
- YDC_B is the number of days in a year (day count convention, varies by currency, as mutually agreed between the Authority and the Eligible Counterparty);
- BD is the number of calendar days between Start Date and End Date;
- FCOR is the foreign currency overnight rate (based on the interest received from the foreign central bank); and
- SPOT' is the effective spot exchange rate between foreign currency and SGD, computed as follows:

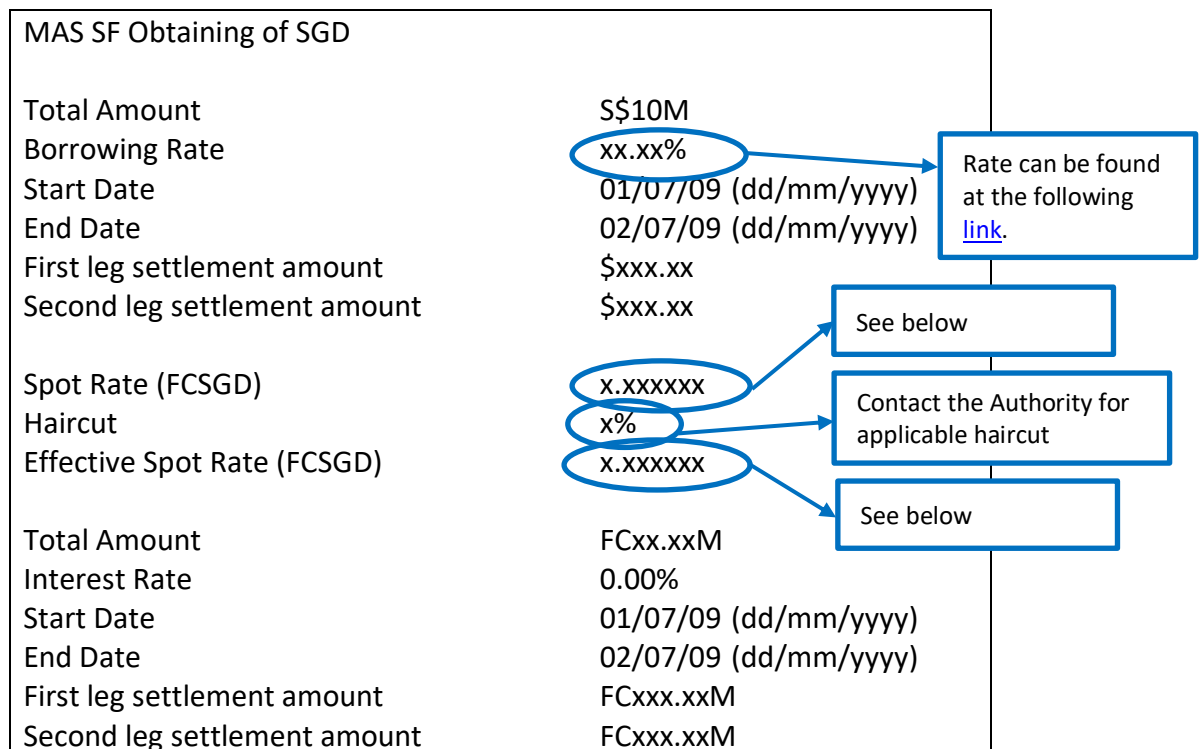
Effective spot exchange rate = Spot exchange rate x (1-Haircut); and

where the spot exchange rate between foreign currency and SGD is based on the rate fixed by the Association of Banks in Singapore as at

⁶ <https://www.mas.gov.sg/monetary-policy/liquidity-facilities/mas-standing-facility>

11.30 a.m., Singapore time, on the same day (“T”), and when such rates are unavailable, shall be based on the previous Business Day’s Bloomberg rates fixed as at 6 p.m., London time.

4 Sample Confirmation to Obtain S\$10 Million Using Foreign Currencies if Conducted as a Collateralised Loan



- Borrowing Rate can be found at the Authority’s website⁷;
- Effective spot exchange rate = Spot exchange rate x (1-Haircut),

where the spot exchange rate between foreign currency and SGD is based on the rate fixed by the Association of Banks in Singapore as at 11.30 a.m., Singapore time, on the same day (“T”), and when such rates are unavailable, shall be based on the previous Business Day’s Bloomberg rates fixed as at 6 p.m., London time.

⁷ <https://www.mas.gov.sg/monetary-policy/liquidity-facilities/mas-standing-facility>

5 Calculation of Settlement Amount for First Leg for Repurchase or Collateralised Loan Transactions Involving Foreign Currency Denominated Securities

Settlement amount in the first leg (to 2 decimal places) = (Nominal amount of securities/100) * Effective Price,

- Effective Price (to 2 decimal places) = Initial Dirty Price x (1-Haircut);
- Initial Clean Price = Previous Business Day's Closing Clean Price as published on Bloomberg; and
- Initial Dirty Price (to 2 decimal places) = Initial Clean Price + Accrued Interest.

6 Calculation of Settlement Amount for First Leg for Repurchase or Collateralised Loan Transactions Involving Foreign Currency Denominated Zero Coupon Securities

Settlement amount in the first leg (to 2 decimal places) = (Nominal amount of securities/100) * Effective Price,

- Effective Price (to 3 decimal places)= Initial clean price x (1-haircut) (rounded to 3 decimal places); and
- Initial clean price = $100 - (N/365 * Y)$,

N is number of days from Value Date to maturity date of bond; and
Y is the previous Business Day's closing yield as published on Bloomberg.

7 Calculation of Settlement Amount for Second Leg Transactions Involving Foreign Currency and Foreign Currency Denominated Securities

Settlement amount in the second leg (to 2 decimal places) = [(Settlement amount in the first leg) * (SF Borrowing Rate/100) * (No. of calendar days between first and second leg of transaction/365)] + (Settlement amount in the first leg)

8 List of Eligible Collateral and the Respective Settlement Date Conventions Under CBCAs

Where Trade Date is T,

Central Bank	Eligible Collateral	Settlement Date Conventions		
			1 st leg	Maturity leg
Bank Negara Malaysia	(a) MYR cash; (b) Malaysian Government Securities; (c) Government Investment Issues; (d) Malaysian Treasury Bills; (e) Malaysian Islamic Treasury Bills; and (f) Bank Negara Monetary Notes (both conventional and Islamic).	Foreign currency cash/Foreign currency denominated securities	T	T+1
Bank of Thailand	(a) THB cash; (b) Thai Government Debt Securities; and (c) BOT Debt Securities.	S\$	T	T+1

Central Bank	Eligible Collateral	Settlement Date Conventions		
			1 st leg	Maturity leg
Bank of England	(a) GBP cash; and (b) British Government Debt Securities (Gilts).	Foreign currency cash/Foreign currency denominated securities	T	T+2
Banque de France	(a) EUR cash; (b) French Treasury Bonds; (c) Medium-term Treasury Notes; and (d) Discount Treasury Bills, where (b)-(d) are issued by the French Government.			
Deutsche Bundesbank	(a) EUR cash; (b) Federal Bonds (Bunds); (c) Five-year Federal Notes; (d) Federal Treasury Notes; and (e) Treasury Discount Paper, where (b)-(e) are issued by the German Federal Government.	S\$	T+1	T+2
De Nederlandsche Bank	(a) EUR cash.			
Federal Reserve Bank	(a) US Treasury Bills; and (b) US Treasury Notes.			

Central Bank	Eligible Collateral	Settlement Date Conventions		
			1 st leg	Maturity leg
Bank of Japan ⁸	(a) JPY cash			
	(b) Japanese Government Bonds which bear interest at a fixed rate on which withholding tax shall not be imposed and whose original maturity is two, four, five, six, ten, twenty, thirty or forty years (excluding those which are subject to item (c) below);	Foreign currency cash	T+1	T+2
	(c) Japanese Government Bonds which bear interest at a floating rate on which withholding tax shall not be imposed and whose original maturity is fifteen years;	S\$	T+1	T+2
	(d) Inflation-Indexed Japanese Government Bonds which bear interest at a fixed rate, subject to the following:	Foreign currency denominated securities	T+2	T+5
	(i) Withholding tax shall not be imposed on both the interest amount and the increased principal amount; and (ii) Original maturity is ten years.	S\$	T+2	T+3
(e) Separated Principal Components (principal-only Japanese Government Bonds);				
(f) Separated Coupon Components (coupon-only Japanese Government Bonds); and				
(g) Japanese Treasury Discount Bills.				

⁸ In order to use Japanese Government Bonds as collateral, an Eligible Counterparty must ensure that the following additional requirements are satisfied:

- (a) the Eligible Counterparty must be exempt from withholding tax on the interest incomes from Japanese Government Bonds under Japanese tax laws. Eligible Counterparties which may be exempt from withholding tax on the interest incomes from Japanese Government Bonds under Japanese tax laws are:
 - (i) non-Japanese corporations (corporations which do not have their headquarters or main office in Japan). These non-Japanese corporations can enjoy exemption from withholding tax only on the interest of Japanese Government Bonds described/recorded in an account with a Japanese Government Bonds Book-Entry System participant in Japan or in an account with a qualified foreign intermediary (QFI) under Article 5-2 of the Japanese statute known as Act on Special Measures concerning Taxation (Act No. 26, 1957) In addition, non-Japanese corporations which wish to enjoy exemption from withholding tax have to carry out the procedure provided in the aforesaid Article 5-2; and
 - (ii) financial institutions subject to Article 8 of the Act on Special Measures concerning Taxation (Act No. 26, 1957). These include banks, insurance companies, trust companies, special banks and securities companies.
- (b) the Japanese Government Bonds used as collateral shall be legally owned by the Eligible Counterparty itself when posted to the Authority's account with the Bank of Japan, and the legal and beneficiary ownership of such Japanese Government Bonds shall not be transferred to any third parties for the period during which the Japanese Government Bonds so posted are used as collateral; and
- (c) the Japanese Government Bonds used as collateral must not have been held by financial institutions or corporations which are not exempt from withholding tax on interest incomes from Japanese Government Bonds during the current interest period.