

Box B: Review of MAS Money Market Operations in FY2020/21¹

Money market operations in Singapore are undertaken to manage liquidity within the banking system and are distinct from the implementation of exchange rate policy. This Box reviews MAS' money market operations in FY2020/21.

The conduct of money market operations is briefly explained in the context of Singapore's exchange rate policy framework. This is followed by a review of banks' demand for cash balances, the behaviour of autonomous money market factors, and the composition of money market operations during this period.

Money market operations in Singapore

The open-economy trilemma posits that a country that maintains an open capital account cannot simultaneously manage its exchange rate and domestic interest rates. Given Singapore's open capital account and exchange rate-centred monetary policy, domestic interest rates are necessarily endogenous. They are determined not just by MAS' exchange rate policy but also by global factors, including international interest rates. MAS' money market operations are thus not targeted at any level of interest rate. Instead, they are aimed at ensuring that there is sufficient liquidity in the banking system to meet banks' demand for reserve and settlement balances, and to reduce the risk of sharp interest rate volatility.

Money market operations are conducted daily by the Monetary & Domestic Markets Management Department (MDD) at MAS. The extent and size of daily money market operations depend on market conditions, particularly the banking sector's demand for funds, as well as the net liquidity impact of autonomous money market factors, as outlined in the sections below.

Banks' demand for cash balances

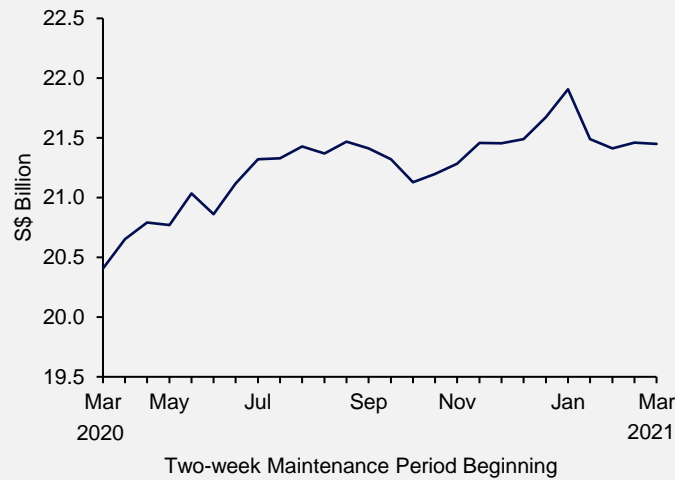
Banks in Singapore are required by regulation² to maintain with MAS a Minimum Cash Balance (MCB) equivalent to a specified proportion of their qualifying liabilities. On a daily basis, banks have to maintain an effective end-of-day cash balance of between 2% and 4%³ of their liabilities base, while on average in each two-week maintenance period, cash balances should not fall below 3% of their liabilities base. This demand from banks for meeting of MCB requirements forms the base demand for cash balances. In FY2020/21, this demand for cash balances to meet reserve requirements increased by approximately S\$1 billion (**Chart B1**).

¹ This Box was contributed by the Monetary & Domestic Markets Management Department of MAS. More information on MAS' money market operations is available in the monograph "Monetary Policy Operations in Singapore" published on the MAS website in March 2013.

² As set out in MAS Notice 758, which applies to all banks in Singapore.

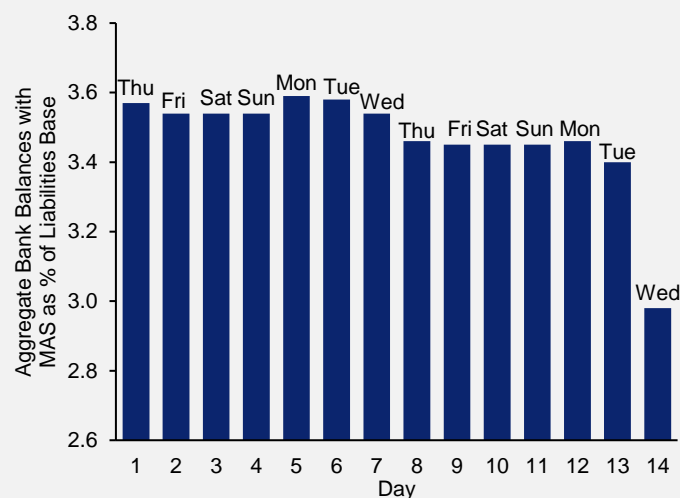
³ Cash balances in excess of 4% of liabilities do not count towards meeting the MCB requirement.

Chart B1 Average required cash balances over two-week maintenance periods



Overlaid on the longer-term trend, banks’ demand for cash balances to meet reserve requirements also displays a fortnightly pattern. Empirically, banks tend to maintain higher cash balances during the start of a maintenance period to avoid being short of cash towards the end of the period. Upon meeting the average MCB requirement of 3%, banks will deposit their excess cash with the MAS Standing Facility towards the end of the maintenance period to earn interest as MAS does not pay any interest on the cash balances.⁴ Hence, the daily cash balances required by the banking system during the last few days of a maintenance period are usually lower. This fortnightly pattern was evident also in the daily cash balances of banks in FY2020/21 (**Chart B2**).

Chart B2 Daily effective cash balances as percentage of banks’ liabilities base over a typical two-week maintenance period in FY2020/21



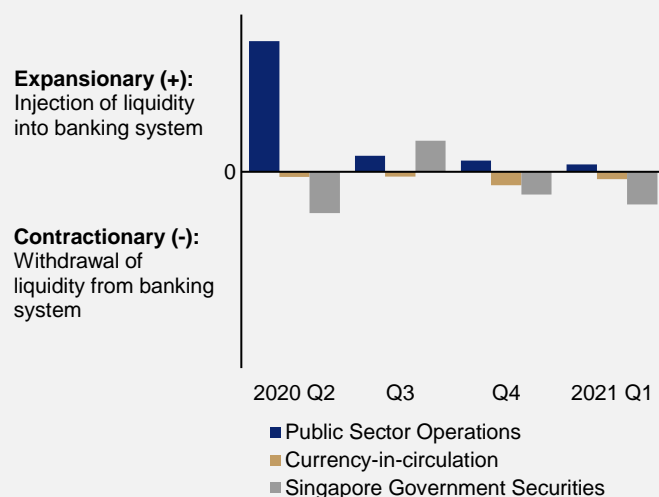
⁴ From a regulatory perspective, such deposits will also help to reduce the liabilities base, and in turn the amount of reserve balances banks are required to hold.

Finally, in addition to cash balances for meeting of MCB requirements, banks may hold additional amounts of cash balances to make large payments (for settlement purposes) or for precautionary motives amid heightened market volatility. This was observed as well at the onset of the COVID-19 pandemic in Q2 2020. To meet the increased demand from banks for precautionary balances, MAS maintained a higher-than-usual level of liquidity in the banking system during this period, equivalent to about 1% of the banking system liabilities base. The excess liquidity was withdrawn from the banking system in the subsequent months.

Autonomous money market factors

Chart B3 shows the liquidity impact of autonomous money market factors, which include: (i) public sector operations; (ii) currency in circulation; and (iii) Singapore Government Securities (SGS) and Treasury Bills (T-bills) issuance, redemption and coupon payments, over FY2020/21. Public sector operations include the government's and CPF Board's net transfers of funds between their accounts with MAS and their deposits with banks. In FY2020/21, the liquidity impact of the autonomous money market factors was expansionary on a net basis, as the government's fiscal response to COVID-19 led to an overall injection of funds through public sector operations.

Chart B3 Liquidity impact of autonomous money market factors



Composition of money market operations

MAS relies on four money market instruments to manage liquidity in the banking system, namely: (i) FX swaps; (ii) SGS repos; (iii) clean borrowings; and (iv) MAS Bills.⁵ The share of FX swaps decreased from FY2019/20 to FY2020/21, while the share of MAS Bills and clean borrowings increased in the same period and continued to comprise the largest share of the total in both periods (**Chart B4**).

⁵ FX swaps are contracts in which MAS borrows Singapore dollars from, and simultaneously lends another currency to, the second party. SGS repos refer to collateralised borrowing or lending of Singapore dollars against SGS. Clean borrowings are MAS' borrowings of Singapore dollars on an uncollateralised basis.

Chart B4 Composition of money market operations by instrument

