Box B: Review of MAS Money Market Operations in FY2021/22[1]

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 FY2021/22.

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 regulation[2] 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 to meet MCB requirements forms the base demand for cash balances. In FY2021/22, this demand for cash balances to meet reserve requirements increased by approximately S$1.2 billion **(Chart B1),** in tandem with an expansion in the banking system liabilities base.

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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

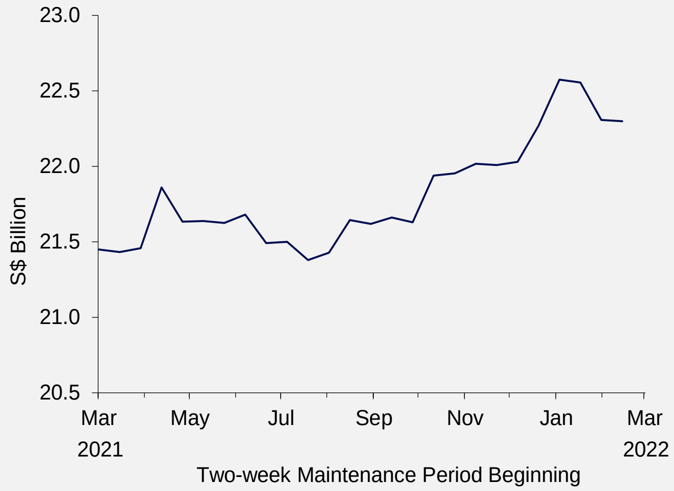
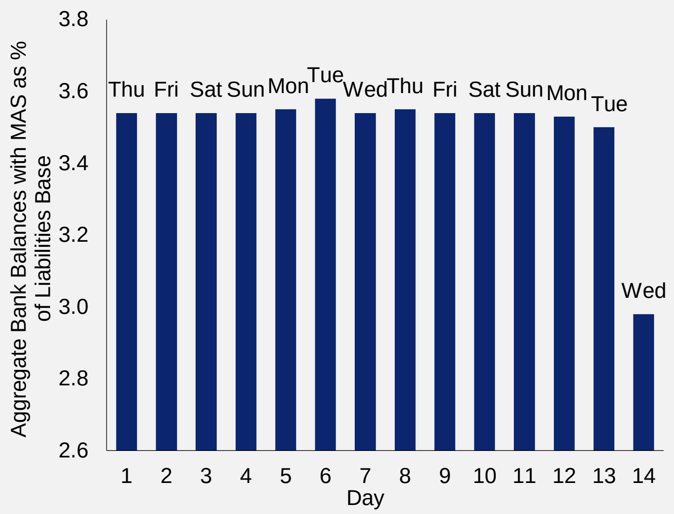


Chart B2 shows the daily cash balances of banks within an average maintenance period in FY2021/22. Historically, the daily cash balances required by the banking system during the last few days of a maintenance period tend to be lower, as banks deploy their excess cash, including depositing at the MAS Standing Facility, upon meeting the average MCB requirement of 3% for that maintenance period. In addition, 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 in FY2021/22, when banks kept daily effective cash balances higher even towards the end of the maintenance period.

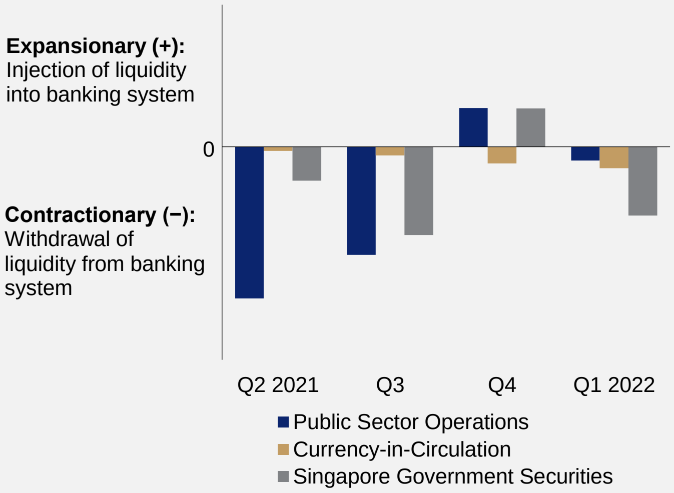
Chart B2 Daily effective cash balances as a percentage of banks' liabilities base over a typical two-week maintenance period in FY2021/22



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 FY2021/22. 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 FY2021/22, the liquidity impact of the autonomous money market factors was contractionary on a net basis, largely due to the withdrawal of funds through public sector operations and SGS.

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.[4] The share of FX swaps decreased from FY2020/21 to FY2021/22, 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 FY2021/22 **(Chart B4)**.

4 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