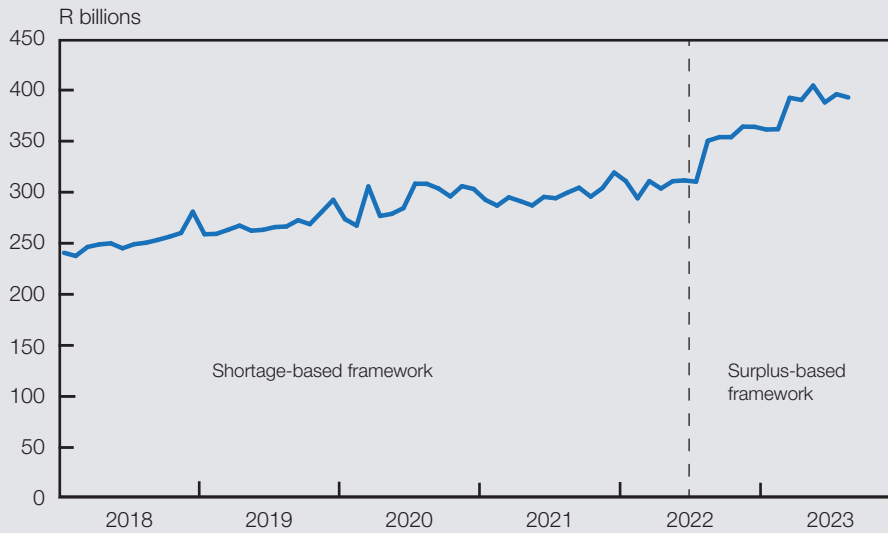


Box 2 The recent expansion of the monetary base¹

South Africa's monetary base² expanded with the change to a surplus-based monetary policy implementation framework (MPIF)³ that was introduced by the South African Reserve Bank (SARB) from June 2022. This box unpacks the increase in the components of the monetary base and indicates how the composition has changed following the changeover and also refers to the link with money supply and credit extension.

The implementation of the surplus-based framework increased the monetary base from R310.1 billion in May 2022 to R392.1 billion in August 2023 as some of the liquidity provided by the SARB to banks circulated back as deposits in the South African Multiple Option Settlement (SAMOS) system.⁴ The component of the monetary base that increased the most was banks' SAMOS system balances at the SARB within the quota limit,⁵ while required reserves remained stable as a percentage of banks' total liabilities. The growth in interest-bearing⁶ deposits within the quota limit resulted partly from the effect of the higher repurchase (repo) rate.

Monetary base



Source: SARB

- 1 This box relates to the monetary statistics on pages S-2, S-3, S-23, S-28 and S-29 in this edition of the *Quarterly Bulletin (QB)*.
- 2 The monetary base (M0) comprises total banknotes and coin in issue and in circulation outside of the South African Reserve Bank (SARB), net of issuance and removal from circulation, *plus* banks' required cash reserves as well as their excess cash reserves and other deposits at the SARB in rand. See 'Note on banknotes and coin in South Africa' in the September 2021 edition of the *QB*, available at <https://www.resbank.co.za/en/home/publications/publication-detail-pages/quarterly-bulletins/articles-and-notes/2021/september-2021---note-on-banknotes-and-coin-in-south-africa>; and 'Note on recent developments in money creation in South Africa' in the September 2020 edition of the *QB*, available at <https://www.resbank.co.za/en/home/publications/publication-detail-pages/quarterly-bulletins/articles-and-notes/2020/10269>. For the international methodological guidelines, see pages 197-200 in the *Monetary and Financial Statistics Manual and Compilation Guide*, 2017, published by the International Monetary Fund (IMF), available at <https://www.elibrary.imf.org/display/book/9781513579191/9781513579191.xml?rskey=orsW97&result=5>
- 3 The SARB's surplus-based MPIF, which was phased in over 12 weeks as from 8 June 2022, replaced the classical cash reserve or shortage-based framework that had been in place since March 1998. In the surplus-based framework, the SARB provides ample daily liquidity, with banks lending and borrowing in the interbank market with no obligation to participate in the SARB's weekly auctions. Subject to quota limits, banks earn the repurchase (repo) rate on qualifying excess reserves in the South African Multiple Option Settlement (SAMOS) system deposited overnight at the SARB. Funds within the quota limit are reimbursed at the repo rate, while those in excess of the quota are reimbursed at 100 basis points below the repo rate. The framework accommodates excess liquidity, with the quotas determined by banks' relative sizes as well as the total amount of liquidity in the market, as set by the SARB. The cash reserve requirement of 2.5% of banks' total liabilities remains applicable and does not attract interest. In the shortage-based framework, the SARB maintained a liquidity shortage in the money market which ensured that banks had to refinance their daily liquidity requirements at the SARB.
- 4 The SAMOS system is a real-time gross settlement system (RTGS) owned and operated by the SARB that facilitates the settlement of domestic high-value payments and retail batches as well as settlement in the bond and equity markets. Quota-related deposits are also placed in the SAMOS system.
- 5 Deposits within the quota limit have accounted for about 97% of total quota-related deposits, on average, thus far in 2023. Deposits exceeding the quota limit reflect excess funds after end-of-day square-off.
- 6 Within the quota, deposits earn interest at the repo rate, while deposits in excess of the quota earn interest at the repo rate *minus* 100 basis points. The required reserve balances of banks at the SARB do not earn any interest.



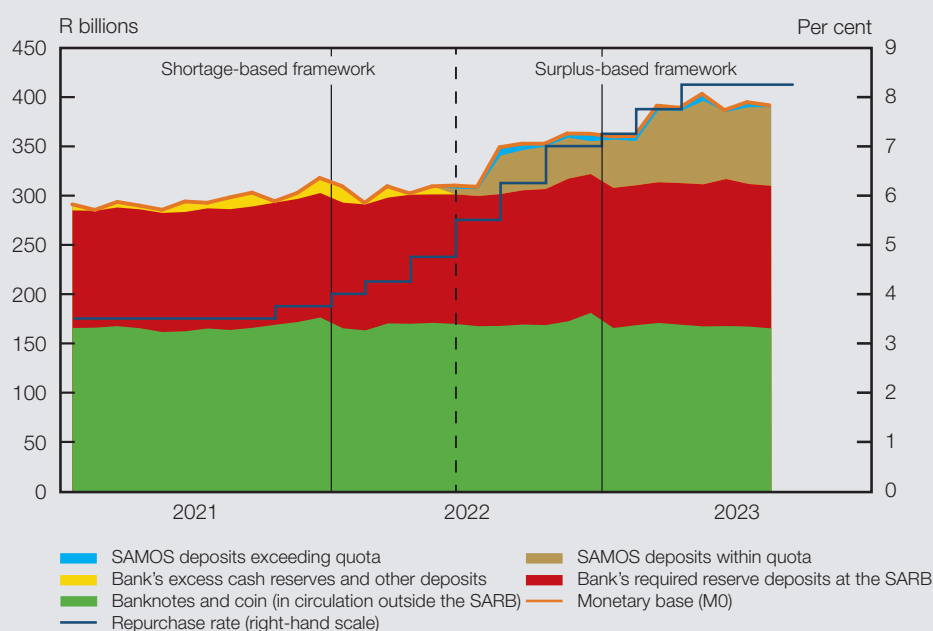
The monetary base comprises the following central bank liabilities: banknotes and coin in circulation, private sector banks' holdings of required cash reserves, any excess reserves, and other deposits. Therefore, changes in the level and composition of the monetary base can only result either from changes in the public's demand for banknotes and coin or banks' deposits at the SARB. Changes in the latter, among other factors, reflect regulatory changes to the cash reserve requirement and the impact of the MPIF on SAMOS deposit balances.

Composition of the monetary base

R millions	Dec 2020	Dec 2021	Dec 2022	Aug 2023
Banknotes and coin in circulation outside the SARB	177 573	177 098	181 820	166 089
Private bank deposits at the SARB.....	124 891	141 498	181 530	226 056
Required cash reserve balances.....	118 832	126 345	140 886	144 746
Excess cash reserves and other deposits ¹	6 059	15 153	40 644	81 310
<i>Of which: SAMOS balances</i>				
Deposits (shortage-based framework)	3 700	10 850	–	–
Deposits (surplus-based framework) within quota	–	–	31 402	79 254
Deposits (surplus-based framework) exceeding quota	–	–	7 247	1 281
Monetary base	302 464	318 596	363 350	392 145

¹ Excluding foreign currency-denominated deposits

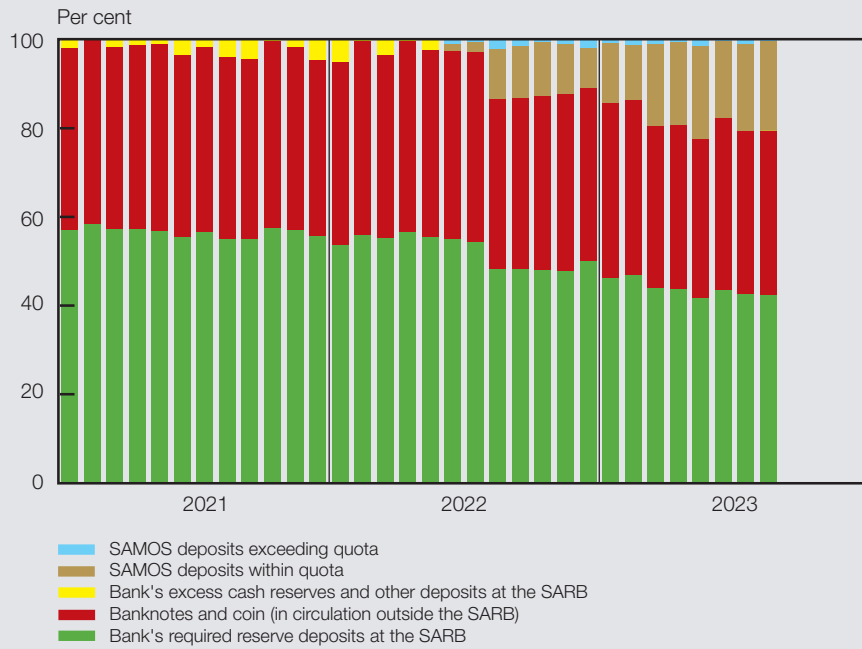
Total SAMOS deposits of banks at the SARB and the repo rate



Source: SARB

The effect of the change to a surplus-based framework is evident from the changing composition of the monetary base. The contribution of banks' excess cash reserves and other deposits at the SARB, in particular quota-related deposit balances within the SAMOS system, increased substantially. In December 2021, the monetary base comprised banks' total deposits at the SARB of 44.4%, and notes and coin in circulation outside the SARB of 55.6%. Following the change in the framework, the contribution of bank deposits at the SARB increased to 57.6% in August 2023.

Composition of the monetary base



Source: SARB

An increase in the monetary base supports an increase in banks' assets through credit extension and the acquisition of high-quality liquid assets (HQLAs),⁷ while also supporting an increase in banks' liabilities, as banknotes and coin in circulation outside of the monetary sector are part of the broad money supply (M3). However, the monetary base also affects money supply through the money multiplier.

⁷ HQLAs are convertible into cash with no significant loss of value.

