



TECHNICAL ASSISTANCE REPORT

VANUATU

Monetary Policy Implementation Framework

August 2026

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Monetary and Capital Markets
Department

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Glossary

AIC	Akaike Information Criterion
ALF	Autonomous Liquidity Factors
AUD	Australian Dollar
BoP	Balance of Payments
CDS	Credit Default Swap
CIC	Currency in Circulation
ELA	Emergency Liquidity Assistance
EMBI	JP Morgan Emerging Market Bond Index
ESA	Exchange Settlement Accounts
ETS	Exponential Smoothing
EUR	Euro
FDI	Foreign Direct Investments
FMD	Financial Markets Department
FRFA	Fixed-Rate Full-Allotment Auction
FX	Foreign Exchange
GOV	Vanuatu Government Deposits at the Reserve Bank of Vanuatu
ICMA	The International Capital Market Association
ICMA GMRA	ICMA Global Master Repurchase Agreement
IMF	International Monetary Fund
IOER	Interest on Excess Reserves
LOLR	Lender of Last Resort
MAE	Mean Absolute Error
MCM	Monetary and Capital Markets Department (IMF)
ME	Mean Error
MoU	Memorandum of Understanding
MPC	Monetary Policy Committee
MPIF	Monetary Policy Implementation Framework
NBFI	Non-Bank Financial Institutions
NFA	Net Foreign Assets
NPS	National Payment System
NZD	New Zealand Dollar
OIN	Net Other Items
OMO	Open Market Operations
QER	RBV Quarterly Economic Review
RBV	Reserve Bank of Vanuatu
RMSE	Root Mean Squared Error
RTGS	Real-time Gross Settlement
SRD	Statutory Reserve Deposit
TA	Technical Assistance

TBATS	Trigonometric seasonality, Box-Cox transformation, ARMA errors, Trend, and Seasonal Model
UIP	Uncovered Interest Rate Parity
USD	United States Dollar
VNPF	Vanuatu National Provident Fund
VT	Vanuatu Vatu

Preface

At the request of Reserve Bank of Vanuatu (RBV), a Monetary and Capital Markets (MCM) Department mission visited Port Vila, Vanuatu from May 4 to 14, and May 20 (virtual), 2026, to assist the authorities in conducting a review of the Monetary Policy Implementation Framework (MPIF).

The mission met with Mr. August Letlet, Governor; Dr. Michael Hililan, Deputy Governor; Ms. Gloria Siri, Deputy Governor of Operations; Robert Peter, Acting Head of Economics, Research & Statistics; Mr. Frederic Jacob, Acting Head of Financial Markets; as well as other RBV's staff, Ministry of Finance and several commercial banks. The mission wishes to thank the authorities for their cooperation, productive discussions, and their hospitality.

Executive Summary

The new RBV Act clarified and strengthened the RBV's role in the conduct of monetary policy. It established a clearer mandate, reinforced institutional independence, and strengthened governance and accountability arrangements supporting monetary policy implementation.

The RBV's monetary policy framework is anchored by a peg to an undisclosed currency basket, which has supported low inflation and external stability. The peg remains credible and reserve adequacy is currently comfortable. However, the current framework does not actively use monetary policy instruments to support the exchange rate arrangement. Excess liquidity remains persistently high, with RBV Notes issuance limited.

Strengthening the MPIF is important to enhance the resilience of the regime and better prepare the RBV for potentially more demanding domestic and external conditions. Current reserve adequacy and limited market pressures provide an opportunity to strengthen the framework proactively. The mission recommends a more active use of monetary policy instruments to strengthen monetary transmission and reinforce the peg's credibility. Greater alignment of short-term interest rates with the uncovered interest parity (UIP) condition should support external balance and reduce incentives to shift savings from VATU (VT) into foreign currency assets in view of free capital mobility.

Remunerating excess reserves would have an immediate impact on monetary policy transmission by establishing a lower bound for short-term interest rates at the policy rate minus 150 basis points. This would translate into higher remuneration of VT deposits and strengthen competition among commercial banks for VT funding. Ultimately, it would contribute to a more balanced interest rate structure between VT and foreign exchange (FX) denominated assets.

A seven-day RBV Note issued at fixed rate, full allotment (FRFA) attached to the policy rate shall be the main policy instrument, complemented by the 91-day RBV Note. Issuance volumes should increase materially to absorb surplus liquidity at rates aligned with the policy stance and strengthen the transmission of monetary policy to domestic interest rates. Reducing RBV Notes issuance to two maturities from the current five would simplify the operational framework, reduce fragmentation and support more effective liquidity management. Returning to regular weekly issuance is also important to maintain a predictable operational framework that supports liquidity planning by banks and other potential holders of RBV Notes, while contributing to the development of money markets.

The overnight lending facility should be reduced from 250 to 150 basis points above the policy rate. Combined with remuneration of excess reserves below the policy rate, this configuration would place the policy rate within a narrower interest rate corridor, strengthening its role as the main signal of the monetary policy stance and supporting more effective transmission to short-term interest rates.

Harmonizing reserve requirements across currencies is essential, as the current lower reserve requirement treatment for FX deposits creates distortions that favor foreign currency savings against VT assets. These distortions reduce supply of FX to the market, and consequently increase banks' demands from the RBV. Reserve requirements should also allow for reserve averaging to support more flexibility and active liquidity management by banks as surplus liquidity is absorbed.

The RBV will need to strengthen operational and analytical capacity to support the transition toward a more active MPIF. It should aim to allocate resources more effectively toward functions that support more informed decision-making. This includes strengthening the monitoring of FX markets and flows to better identify the drivers of FX demand. Liquidity forecasting capacities should also be enhanced

to support the calibration of open market operations (OMO) and liquidity management decisions. The mission recommends delegating OMO calibration decisions from the Monetary Policy Committee (MPC) to the RBV staff or a delegated decision-making body, to enable active responses to evolving liquidity conditions.

Communication plays a crucial role in supporting the credibility of the exchange rate peg. The RBV should communicate more clearly and consistently that the exchange rate peg constitutes the nominal anchor of the monetary policy framework, and explain the role of monetary policy operations and interest rate settings in supporting the peg. The RBV could also consider disclosing the composition of the currency basket as part of its regular review process, consistent with practices observed in other pegged regimes. As the operational framework evolves, the RBV should communicate in advance the rationale for changes to monetary operations and instruments, and publish relevant regulations and operational rules to enhance efficiency and understanding.

Recommendations

Table 1. Key Recommendations

Recommendations	Priority	Timeframe 1/
Monetary Policy Framework		
1. Consistently communicate the monetary policy framework across all communication channels, emphasizing the exchange rate as the nominal anchor and the supportive role of FX reserves and interest rates, to strengthen credibility of the peg (¶13).	High	Near term
Currency Basket and FX Operations		
2. Systematically monitor FX market and flows, including collection and analysis of interest rate differentials between VT and FX deposits, to identify emerging pressures and inform policy responses (¶18, 32).	High	Near-term
Interest Rate Setting		
3. Develop a practical approach to monitor the country risk premium to support policy-rate calibration under the peg, and start implementation with a prudent initial measure and gradual adjustments to assess the appropriate level (¶31–32).	Medium	Medium-term
Monetary policy implementation regime		
4. Stop reference to a monetary aggregate operational target, and transition to attaching the policy rate to a short-term RBV Note to establish it as the main operational signal. In the meantime, communicate that the policy rate is the ceiling for RBV Notes (¶51–52).	High	Near-term
5. Reduce the number of RBV Note maturities to two (7-day and longer term, i.e. 91-day) and restore regular weekly auctions to concentrate liquidity and support market development (¶61).	High	Near-term
6. Transition issuance of the seven-day RBV Note to a weekly FRFA auction priced at the policy rate to improve policy-rate transmission (¶61).	High	Near-term
7. Issue the longer term RBV Notes through fixed-volume, variable-rate auctions to absorb structural excess liquidity and support term pricing (¶62).	High	Near-term
8. Delegate decisions on OMO calibration from the MPC to the FMD in consultation with the Governor or a delegated decision-making body, to enable timely liquidity management (¶63).	High	Near term

Recommendations	Priority	Timeframe 1/
9. Eliminate option for holders to sell RBV Notes back to reduce liquidity-management risks (¶66).	Medium	Near term
10. Set the overnight lending facility at 150bp over the policy rate to narrow the interest rate corridor and improve transmission (¶68).	Medium	Near term
11. Remunerate excess reserves at the policy rate minus 150 basis points to raise the floor for short-term rates (¶70).	High	Near term
12. Review and update the design and communication of monetary policy tools, including objectives, instruments, and operating conditions, to improve transparency and effective use (¶71).	High	Near term
13. Harmonize the statutory reserve deposit (SRD) across currencies, such that the same rate applies to all VT and FX deposit liabilities to remove distortions favoring FX deposits (¶75).	High	Near term
14. Introduce averaging of SRD to give banks greater flexibility in managing temporary liquidity shocks (¶76).	Medium	Medium term
15. Review collateral framework to ensure sufficient eligible assets and appropriate risk controls for liquidity operations (¶87).	Medium	Medium term
16. Strengthen the formal lender of last resort (LOLR) framework, including access conditions, eligible collateral, and operational procedures, to support the orderly provision of emergency liquidity assistance (¶87).	Medium	Medium term
17. Establish a structured and regular dialogue with banks to inform monetary operations design and foster markets development (¶88).	Medium	Near term
Liquidity Forecasting		
18. Establishing a liquidity forecasting team with technical capacity to analyze and forecast the autonomous factors of liquidity, to support OMO calibration and liquidity management (¶105–109).	Medium	Near term
19. Engage with Ministry of Finance to establish a Memorandum of Understanding (MoU) with formal information sharing mechanisms, assess the feasibility of remunerating deposits and setting up a Treasury Single Account, to improve liquidity predictability and coordination (¶109–111).	Medium	Near term
20. Communicate clearly and in advance any changes to the operational framework, including their expected positive impact on exchange rate stability and policy transmission, to support credibility and market preparedness (¶112).	High	Near term

1/ Near term: < 12 months; Medium term: 12 to 24 months.

I. Introduction and Background

- 1. A new Reserve Bank of Vanuatu Act of 2025 (the Act) strengthened the institutional framework for monetary policy.** It established the RBV as an autonomous institution with clearly defined objectives, governance arrangements, and accountability mechanisms, addressing gaps in the previous legal framework and supporting the modernization of monetary policy implementation.
- 2. The Act establishes a clear and hierarchical mandate, with the primary objective of achieving and maintaining price stability.** The secondary objective is to contribute to financial system stability, and third to support broader economic policies. The RBV operationalizes price stability through two targets: first, maintaining inflation within a 0 to 4 percent range, and, second, ensuring gross official reserves cover at least four months of imports in order to support exchange rate stability.
- 3. The new legislation also reinforces the RBV's institutional independence and fiscal discipline framework, with a ten-year transition period for the latter.** The Act strengthens the autonomy of the RBV by establishing that the Bank and its decision-makers shall perform their functions independently and not be subject to direction from the government in the conduct of their statutory responsibilities. The Act also prohibits the purchase by the RBV of government securities in the primary market, but these provisions will become fully effective only after ten years.¹ The RBV can still make temporary advances² subject to a limit of 5 percent of average three-year annual government revenue (40 percent limit in interim) in exceptional circumstances. In addition, transparency and accountability requirements include monetary policy reporting, publication of financial statements, and the establishment of internal and external audit functions.
- 4. The exchange rate arrangement constitutes the nominal anchor of the monetary policy framework.** The exchange rate is pegged to a currency basket. While the composition of the basket is not publicly disclosed, it is estimated to consist mainly of the USD, AUD, NZD, and EUR, considering the country's trade flows.³ The composition of the basket is now reviewed annually, in October. This report builds on previous IMF technical assistance (TA) on the currency basket framework and FX market operations.
- 5. The RBV supervises a broad set of financial institutions, including commercial and international banks, insurance companies and intermediaries, credit unions, payment service providers, and other financial institutions.** The financial system is relatively small and bank-dominated, with commercial banks accounting for the bulk of financial intermediation. Overall, the system is stable, supported by high liquidity, adequate capitalization, and sustained profitability.
- 6. Financial markets remain shallow.** No interbank trading takes place in the money market, there is little trading of government bonds, and no equity market exists. Domestic government securities issuance is irregular and fragmented across instruments, with most outstanding holdings concentrated at the RBV and the Vanuatu National Provident Fund (VNPF), with no

¹ In practice, the RBV has made no purchases of government securities since October 2025.

² Repayable by the end of the fiscal year.

³ Estimations of currency basket are based on the IMF Technical Assistance Report on the Currency Basket Framework and FX Market Operations for Vanuatu.

secondary market activity. Three of the four banks do not buy government securities. RBV Notes are issued regularly to commercial banks, and in principle they can be on-sold to non-banks. A VT yield curve can only be inferred from primary market yields on RBV Notes and government securities, although with apparent market segmentation and stale pricing.

7. **The following sections of the report will discuss the considerations for modernizing the RBV's MPIF.** This report is structured as follows: Section II presents the current monetary policy framework. Section III describes Vanuatu's currency basket and FX market. Section IV establishes a benchmark for the interest rate setting based on the UIP condition. Finally, Section V assesses the MPIF.

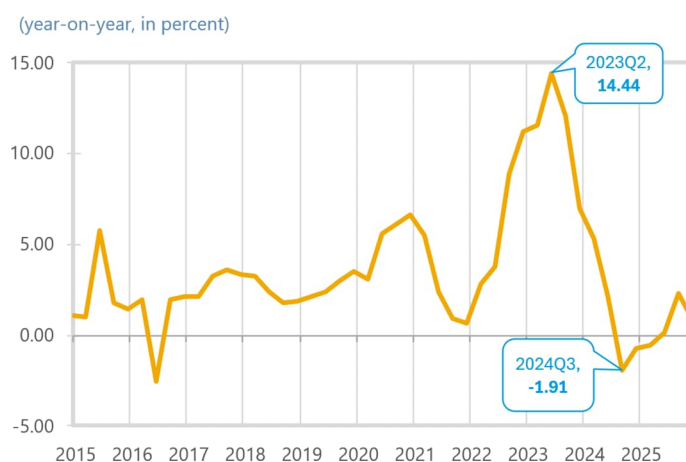
II. Monetary Policy Framework

Current Situation

8. **The RBV's MPC comprises the Governor, the Deputy Governor responsible for Policy, and four Heads of Department (Economic Research; Financial Markets; Financial Regulation; and Financial Development and Consumer Affairs).** The Governor can choose an additional, external member but has not yet done so. The MPC meets four times a year (March, June, September, and December) and reviews the setting of the RBV's policy rate, the level of Statutory Reserve Deposits (SRD), the volume and frequency of OMO, and, unusually, reviews financial stability developments to set policies like the minimum capital adequacy ratio and liquid asset ratio set for commercial banks. Following the introduction in 2025 of the new RBV Act, the MPC makes a recommendation for approval by the Board.⁴ A monetary policy statement is published following Board approval.
9. **The MPC statements make clear that the primary goal of the RBV is to ensure domestic and external price stability.** The targeted inflation range is 0 to four percent. The main tool to deliver this target is exchange rate stability, as imported inflation is the key driver of price movements. Headline inflation was volatile over recent years, rising sharply during 2022–23 driven by higher global food and fuel prices and domestic supply disruptions (including the impacts of a cyclone and an earthquake), before declining rapidly and returning to low positive levels within the RBV's target range (Figure 1).

⁴ The Board comprises four non-executive members plus the Governor and the Deputy Governor responsible for policy. The Chair is one of the non-executives, appointed by the Minister of Finance.

Figure 1. Headline Inflation



Source: Reserve Bank of Vanuatu.

10. **Sufficiency of FX reserves ensures sustainability of the exchange rate peg.** A minimum FX reserves level equal to four months' import cover is set. In practice, it is currently well above this threshold at around nine months, although exhibiting a declining trend in recent years (see
11. Figure 3 for net foreign assets (NFA) evolution).⁵
12. **While monetary aggregates are referenced in the monetary policy framework, they do not operate as an effective operational target for monetary policy implementation.** The RBV website indicates that reserve money is the operational policy variable for its monetary policy framework, with broader monetary aggregates as intermediate/target variables; but the MPC statements and the RBV's operational framework do not support this. There is no target path for M0 or excess reserves growth, and while the RBV estimates that the banking system needs around VT 7 billion operational balances,⁶ excess reserves have been around VT 32 billion for several years, on top of the VT 5 billion in SRD and a stock of RBV Notes that trends around VT5 billion.⁷
13. **Currently OMO are not used sufficiently to manage excess liquidity and support transmission of the policy rate.** As structural surplus liquidity persists, there is no interbank market and little secondary-market trading of securities. The RBV Policy Rate (currently 2.75 percent) sets a maximum for bids at the weekly auctions of RBV notes, but yields rarely rise above one percent, and banks have indicated that in the past bids above 1.5 percent were not successful.

⁵ The September 2025 Article IV report indicates import cover of 11.7 months for goods and services in 2021, declining to an estimated 9.4 at end 2025 and 8.1 in 2026. The RBV provides VT data for gross FX reserves, but currently not in terms of months' import cover, pending finalization of a review of the BOP framework. The RBV expects that adopting international best-practice methodology will result in a higher figure for months of import cover. Net official reserves increased from VT 67.1 billion at end-2021 to VT 74.5 billion at end 2025.

⁶ Raised from Vt3 billion in March 2026.

⁷ Given the low return on the securities, commercial banks set relatively low limits for exposure to the notes.

Recommendations

14. **The RBV should clarify in its public communication that the goal of price stability is pursued mainly via maintenance of the pegged exchange rate.** A statement describing the exchange rate policy—for instance, explaining the nominal stability of the VT against a trade-weighted basket of currencies, and showing that this has been implemented for many years—would be important. In addition, the RBV could consider publishing the currency composition of the basket in October 2026, as part of its next review of the basket (as some Pacific Island central banks like Fiji do). Finally, all central bank communications, including monetary policy statements and reports, should be reviewed to ensure consistency with the pegged regime.

Recommendation 1: Consistently communicate the monetary policy framework across all communication channels, emphasizing the exchange rate as the nominal anchor and the supportive role of FX reserves and interest rates.

III. Currency Basket and FX Operations

15. **The currency basket composition is now reviewed annually.**⁸ The basket weights were updated in October 2025, the first update since 2016, but the basket composition remains undisclosed. The exchange rate is calculated daily using the basket currencies, and official bilateral exchange rates are published. Banks use these as a reference for their operations with clients.
16. **Banks can purchase USD from the RBV, subject to administrative mechanisms.** FX is offered once a week, on Thursdays for T+2 settlement; there are soft bidding limits and documentation requirements.⁹ The RBV provides USD liquidity to commercial banks to cover import payments, and purchases USD and AUD on the limited occasions banks offer to sell, within a narrow spread (± 0.3 VT, equivalent to ± 25 bp) around the official rate. Banks are free to set the margins at which they trade with clients, and tend to operate with spreads of ± 175 –200bp.
17. **The RBV's FX allocation limits impose operational costs on both the RBV and market participants.** While weekly bidding limits increased substantially from USD 300,000 per bank in late 2025, banks indicated that tighter documentation requirements (for example, proof of operation such as bill of lading) have partly offset the benefit of higher limits. In addition, the allocation process requires significant operational involvement from the RBV, including substantial staff resources to process documentation, with approvals escalated to the Governor level. While such measures are intended to rationalize FX sales, they appear operationally costly and may divert RBV resources away from understanding market dynamics and the drivers of underlying FX pressures, weakening the basis for appropriate policy responses.
18. **Banks internalize a large share of FX flows with clients, although they continue to rely on RBV FX provision to meet part of market demand.** Banks indicated that FX inflows from clients

⁸ Following recommendation from IMF technical assistance in 2025 that reviewed the Currency Basket Framework and FX Market Operations. The RBV also advanced implementing other recommendation such as the gradual reduction of quantity limits in the FX auctions. However, key elements of the reform agenda remain pending, including enhancing transparency of the basket framework and advancing FX market development.

⁹ Trade documentation supporting the underlying customer transactions requiring FX have to be provided to and cleared by the RBV prior to the request being made for FX. The clearance process can take two weeks.

cover around $\frac{3}{4}$ of demand (mainly imports). These inflows include those associated with the Government's Citizenship programs, which are paid into some commercial bank accounts, while the banks credit the Government in VT.¹⁰ Some donor FX flows also go to the commercial banks rather than the RBV, depending on where contractors who undertake donor-fund related business hold their accounts. However, banks also rely on the RBV's FX provision, and backlogs may arise, particularly for large import transactions. This is mitigated by requiring clients to submit import FX needs up to three months in advance and by accessing the RBV every week to meet this demand. There is also some unmet retail client demand for FX, probably reflecting incentives from higher interest rates available on FX deposits, although banks indicated that such demand is not prioritized. The RBV Quarterly Economic Review (QER) (Table 11.a) shows that interest rates paid on FX deposits are significantly higher than on VT deposits.¹¹

Recommendations

19. **Closer monitoring of FX flows is important to help sustain the peg and safeguard reserve adequacy.** Monitoring of FX inflows and outflows also supports the RBV's assessment of domestic liquidity conditions and pressures on reserves. While the RBV is in the process of enhancing banks' reporting of FX transactions, existing monthly reporting provides a lot of data on banks' FX transactions. This data, and additional sources such as banks' FX positions, balance of payments data and consultations with banks could be used more systematically to enhance the RBV's understanding of FX flows in the economy. This will become increasingly important as the RBV starts to use its MPIF more proactively. The RBV could shift resources devoted to cumbersome control processes toward strengthening the monitoring and analysis of FX flows.

Recommendation 2: Systematically monitor FX flows, using available data available, and enhance understanding of the data by discussions with the banks.

IV. Interest Rate Calibration

20. **Setting the interest rate is a matter of policy discretion that falls outside the scope of this TA.** The information outlined in this section is meant to guide and support the decision-making process. As central banks employ various analytical approaches and methodologies to determine interest rates, the following analysis presents relevant factors to be considered. The RBV sets its policy rate based on an assessment of international and domestic developments, inflation, fiscal and monetary conditions, exchange rate movements, and the balance of payments, focusing on their implications for inflation and international reserves. The policy rate is therefore set as part of a broader monetary policy stance aimed at maintaining price stability, supporting reserve adequacy under the exchange rate peg, and safeguarding financial stability. The current level is at 2.75 percent.
21. **Setting the policy interest rate when operating a fixed exchange rate must be linked to the preservation of the currency peg.** The objective is to calibrate the policy rate so that it neither encourages sustained foreign exchange inflows nor triggers persistent outflows, both of which could undermine international reserve adequacy and threaten the peg. Under perfect capital mobility, the sustainability of the peg relies on ensuring that interest rates satisfy the UIP

¹⁰ Citizenship program flows can be substantial, bringing in VT7.5 billion in 2025, over 15 percent of government revenue.

¹¹ In 2025, the weighted average interest rate on Vatu deposits was 0.33 percent, compared with a range of 1.13-2.20 percent on FX deposits.

condition, which balances FX flows.¹² If the domestic interest rate is too low (high) relative to the anchor currencies, it could trigger persistent foreign exchange outflows (inflows) that may put pressure in the exchange rate and international reserves, endangering the sustainability of the peg.

22. **In the case of Vanuatu, frictions like high transaction costs and limitations to FX conversion, as well as low financial and economic development may provide some operational independence.** However, the alignment of domestic and foreign interest rates (adjusted as appropriate for country-specific risk premia) remains central to policy credibility and the effectiveness of the monetary framework. Existing frictions do not justify a permanent misalignment with the UIP.
23. **Greater alignment would also make Vanuatu more resilient to potential changes in FX flow volatility.** While there is no imminent pressure, market feedback pointed to some backlog of clients interested in shifting part of their portfolios into higher yielding FX assets. Similarly, higher foreign interest rates create incentives for economic agents to retain export (including tourism-related) inflows in FX rather than converting them into VT.
24. **The UIP-based policy rate should consider the policy rates of anchor countries weighted according to their representation in Vanuatu's currency basket.** These combined rates are then adjusted for Vanuatu's specific risk premia, reflecting market expectations and country-specific factors. Monetary policy decisions would thus mainly be driven from rate decisions of the anchor countries as follows:

$$i_t - i_t^* \approx (E_t(s_{t+1}) - s_t)/s_t + \text{risk premium}$$

Where i_t is the domestic interest rate, i_t^* is the foreign interest rate, $i_t - i_t^*$ is the differential, and s_t is the spot exchange rate. Given the exchange rate peg, the currency component $(E_t(s_{t+1}) - s_t)/s_t$ is not considered for Vanuatu.

25. **By applying the sample* currency basket weights and the current level of the international policy interest rates, the UIP-based interest rate for Vanuatu is estimated at 3.52 percent (Table 2).** The next step is to estimate and add the risk premium to the UIP interest rate, as shown in the above equation.

Table 2. Anchor Policy Rates and Currency Basket Weights (May 2026)

	Basket Weights*	Policy rate
USD	66.3%	3.50
AUD	21.3%	4.35
NZD	9.0%	2.25
EUR	3.4%	2.15
Total	100.0%	3.52

Source: Reserve Bank of Vanuatu, IMF staff calculation.

* Sample weights using import invoice.

¹² See Annex I for a conceptual framework for liquidity management under a pegged exchange rate arrangement and perfect capital mobility.

A. Estimation of the Country Risk Premium

26. **Market-based measures for the country risk premium estimation are currently not available.** In principle, sovereign risk spreads can be inferred from instruments such as sovereign bond spreads, credit default swap (CDS) spreads, or sovereign credit ratings. However, these approaches are not applicable in Vanuatu due to the absence of the underlying market instruments and pricing indicators.
27. **To address these limitations, the mission applied a model-based approach to estimate Vanuatu's country risk premium.** Under this approach, the country risk premium is estimated using a predictive framework that relates sovereign risk spreads to macroeconomic and global risk factors. Forecasts generated by the model provide forward-looking estimates of sovereign risk and are linked to a set of economic fundamentals known to affect country risk. The approach involves two main steps: (i) identifying an appropriate proxy for the country risk premium; and (ii) identifying the factors that explain its movements.
28. **To implement this framework, the mission adopted a panel-data approach¹³ that combines cross-country information with country-specific characteristics.** At the same time, it also allows for country-level heterogeneity through country-specific effects and coefficients. The model is designed to estimate the long-run equilibrium level of the country risk premium conditional on domestic and global macroeconomic fundamentals.
29. **The model specification and variable selection were guided by the need to balance model performance and availability of consistent cross-country data.** The model takes the following form: $E(y_{it}) = \alpha_i + \gamma_t + x'_{it}\beta + z'_{it}\delta_i$, where the dependent variable is the JP Morgan Emerging Market Bond Index (EMBI), a widely used measure of sovereign bond spreads for emerging market economies, which serves as a proxy for the country risk premium.
30. **The explanatory variables were selected based on data availability for Vanuatu and supplemented with selected global indicators.** Linear interpolation techniques were used to convert lower-frequency data into monthly series. Alternative model specifications were evaluated using the Akaike Information Criterion (AIC) to identify the preferred one. The final model specification and the coefficients estimated for Vanuatu are presented in Table 3, including the estimated country risk premium based on March 2026 data. Using this model, the mission team also estimated the evolution of Vanuatu's country risk premium for the period from December 2022 to March 2026, with the results presented in Figure 2.

Table 3. Panel Model Estimation for Country Risk Premium

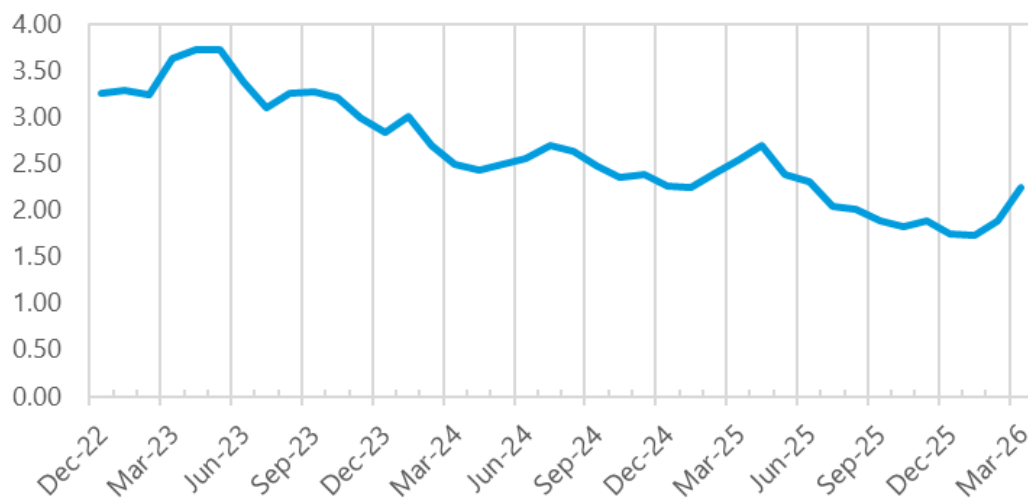
	Model Estimation	Vanuatu Data (Mar 2026)	Global Data (Mar 2026)
Country Effect	4.709		
Time Effect (March 2026)	-0.374		
Coefficient on:			
Inflation	0.002	0.98	
Debt to GDP ratio	0.008	37.73	
Crude Oil Price	0.003		101.38
VIX	0.018		25.25
Estimated Country Risk Premium (March 2026): 2.24%			

Source: Reserve Bank of Vanuatu, IMF staff calculation.

¹³ See more details in Annex II.

Figure 2. Estimated Country Risk Premium

(in percent)



Source: IMF staff calculation.

- 31. The mission notes that additional variables may be relevant determinants of country risk premiums but were not included in the baseline model because of data limitations.** These variables can be grouped into three broad categories: (i) balance of payments variables, which directly affect FX flows and external financing conditions; (ii) economic outlook indicators, such as growth prospects and fiscal expectations, which influence investors' perceptions of a country's future repayment capacity and macroeconomic stability; and (iii) contextual indicators, including measures of institutional quality, governance, and vulnerability to external shocks, which affect overall investor confidence and risk perceptions. A detailed list of these variables is provided in Box 1.

Box 1. Relevant Variables for Country Risk Premium Estimation

Balance of Payments (BoP) variables

Tourism	A major source of FX earnings for Vanuatu.
Imports and exports of goods & services	Affect the trade balance and external financing needs.
Foreign aid and grants	Provide external financing support and improve reserve adequacy.
Foreign direct investments (FDI)	Improve the capital account and support external sustainability.
Government revenues & expenditures	Fiscal policy affects external borrowing and import demand.
Inflation rates	Relative prices affect trade competitiveness and external balances.
Economic growth	Stronger growth influences import demand and repayment capacity.
Geopolitical factors	Political instability or conflicts can disrupt trade and investment flows.
Changes in global commodity prices	Affect the trade balance through import and export prices.

Economic outlook indicators

GDP growth rate	Influences expectations of future repayment capacity.
Inflation rate	High or volatile inflation can destabilize the economy and increase risk perceptions.
Current account balance	A large current account deficit may indicate reliance on external borrowing and higher external vulnerability.
Fiscal balance (gov. deficit/surplus)	A large fiscal deficit can raise concerns about debt sustainability and repayment capacity.
External debt levels	High external debt can increase vulnerability to financial and exchange rate shocks.
FX reserves	Low reserve levels may reduce a country's ability to defend its currency and meet external obligations.
Unemployment rate	A higher unemployment rate signals weaker economic conditions.
Tourism arrivals and tourism revenue	Lower tourism activity can weaken FX earnings and external balances.

Contextual indicators

Climate and natural disaster vulnerability	Higher exposure increases macroeconomic and fiscal risks.
Political risk	Captures the risks arising from political instability, such as political instability, corruption, etc.
Institutional quality	Strong institutions improve policy credibility and investor confidence.
Regulatory environment	Captures the risks arising from changes in regulations

Recommendations

32. **Closer alignment with the UIP condition could help the RBV be better prepared for more demanding external conditions.** The UIP-based interest rate, augmented with an estimated country risk premium, was calculated at around 2.24 percent. This estimate should be interpreted with caution given the uncertainty surrounding the calibration. The RBV can monitor indicative variables potentially associated with changes in sovereign risk perceptions and external

pressures. As the country risk premium is integrated into policy rate decision, it would be advisable to start with a prudent initial measure.

33. **The risk premium would be different across investor and asset types, depending on factors such as maturity, liquidity and credit risk.** In particular, residents considering the choice between domestic or foreign currency deposits with their local bank will be influenced only by the interest rate differentials, as the counterparty and liquidity risk would be the same. The RBV should collect and analyze interest rate differentials across VT and FX deposits.

Recommendation 3: Develop a practical approach to monitor the country risk premium, and start implementation with a prudent initial measure and gradual adjustments to assess the appropriate level (¶31-32).

V. Monetary Policy Implementation

A. Liquidity Conditions

34. **The RBV's balance sheet is asset-driven, with NFA dominating its structure.** NFA represent 83.6 percent of total assets or 45.7 percent of GDP (Table 4).
35. **Figure 3 shows that the balance sheet expanded significantly between 2017 and 2021, driven mainly by increases in NFA, and has stabilized in recent years.** The increase in the RBV's FX reserves has been largely driven by government borrowing in FX (mainly for infrastructure projects), and donor funding.¹⁴ Claims on the central government, which are primarily government bond holdings, have been stable since October 2025 and account for 8.6 percent of assets.

Table 4. RBV's Balance Sheet (Dec. 2025)

Assets				Liabilities			
	Amount (million, VT)	% of Total Assets	% of GDP		Amount (million, VT)	% of Total Liabilities	% of GDP
Net Foreign Assets	74,502.58	83.62%	45.74%	Liabilities to Government	12,822.50	14.39%	7.87%
Claims on Central Government	7,655.60	8.59%	4.70%	Reserve Money	64,433.69	72.32%	39.56%
OIN	6,934.47	7.78%	4.26%	Currency in circulation	24,580.70	27.59%	15.09%
				Commercial banks' reserves	39,852.99	44.73%	24.47%
				Required reserves	5,781.90	6.49%	3.55%
				Excess reserves	34,071.09	38.24%	20.92%
				RBV Notes	2,362.64	2.65%	1.45%
				Shares and Equity	9,473.86	10.63%	5.82%
Total	89,092.65	100.00%	54.70%	Total	89,092.69	100.00%	54.70%

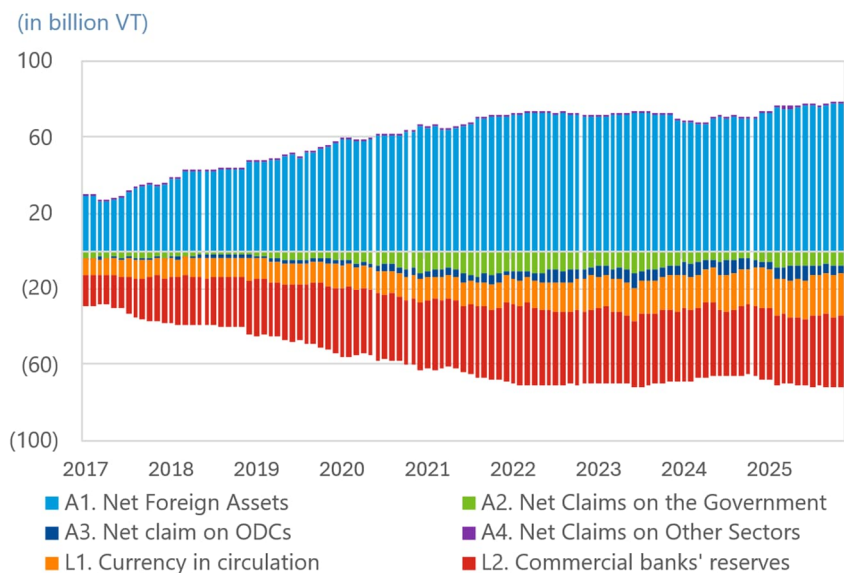
Source: Reserve Bank of Vanuatu, WEO, IMF staff calculation.

Note: The difference in total assets and total liabilities is due to rounding.

¹⁴ The Government deposits FX received from the Citizenship by Investment program with the National Bank of Vanuatu (the Government-owned bank), rather than with the RBV. The National Bank of Vanuatu does on occasion sell some of the FX to the RBV.

36. **Commercial banks' reserves dominate the liabilities side of the RBV's balance sheet, reflecting structurally ample liquidity conditions.** The SRD and excess reserves account for 6.5 percent and 38.2 percent of liabilities, respectively. While the level of excess reserves indicates ample system liquidity, these reserves are unevenly distributed across banks: two banks account for some 70 percent and 20 percent of excess reserves, respectively. Currency in circulation (CIC) has grown steadily and represents 27.6 percent of liabilities, while government deposits at the RBV account for 14.4 percent. RBV Notes represent 2.7 percent of liabilities, indicating their currently limited role in liquidity absorption.

Figure 3. RBV Balance Sheet Composition

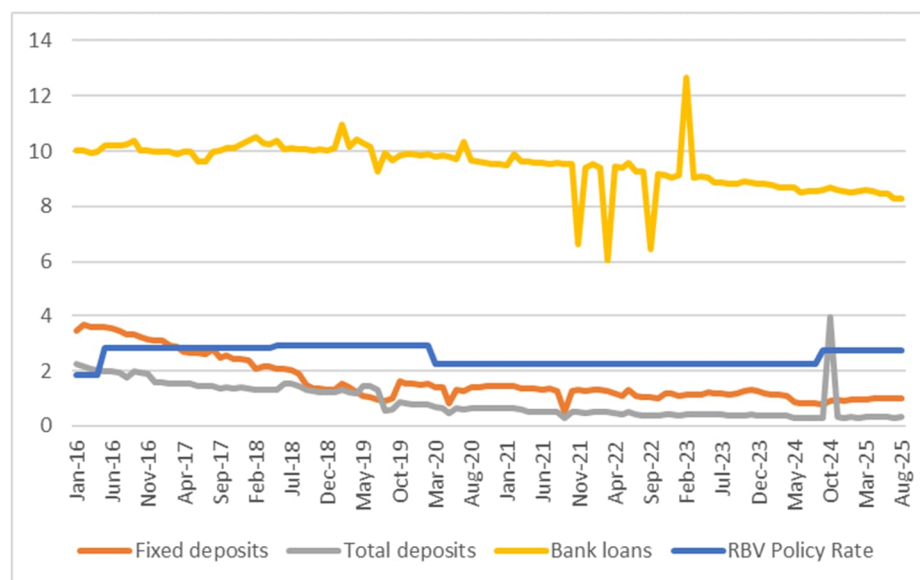


Source: MFS, IMF staff calculation.

37. **RBV Notes are issued to absorb some excess liquidity, but with limited impact on overall conditions.** On the one hand, the RBV sets OMO issuance volumes well below the amount required to absorb liquidity to its target level. However, even at these relatively low issuance amounts, auctions are not always fully subscribed. While all four banks participate in RBV Note auctions, yields are well below the policy rate, reflecting insufficient issuance, and reportedly rejection of some bids if banks tried to push yields up in the past. This is despite the notes being short-term instruments and the only real alternative for banks is to hold unremunerated excess reserves at the RBV (same low credit risk). Demand may be further diluted by the need to spread bids across different RBV Note tenors auctioned simultaneously, with uncertainty of how amounts will be allocated. As a result, total allotment could be below banks' limits, since unused capacity cannot be reallocated to another maturity.
38. **Under these conditions, the policy rate has only a weak influence on market pricing and monetary transmission.** RBV Note yields remain systematically below the policy rate, and banks indicated that the policy rate plays a secondary role in their pricing decisions. When asked about the main factors influencing the setting of their deposit and lending rates, they primarily identified liquidity conditions, cost of funds, and regulatory requirements.
39. **There is no clear relationship between the policy rate and the weighted average monthly deposit and loan rates (Figure 4).** The limited movement in the policy rate over most of the sample weakens statistical pass-through estimation, resulting in wide confidence intervals and

unstable coefficients. By contrast, a stronger relationship is observed between deposit and lending rates.

Figure 4. Policy Rate and Weighted Average Interest Rates



Source: Reserve Bank of Vanuatu.

B. The Monetary Policy Implementation Framework Assessment

40. **Adjustments to the MPIF now are crucial to ensure the continued sustainability of the exchange rate peg and maintain inflation at a low level.** The exchange rate peg and low inflation (supported by the peg) will continue to be the final goals of the RBV's MPIF. FX and, in future, short-term interest rates, serve as operational targets. But the RBV, as any central bank, needs to effectively use its tools to keep the operational targets on track.
41. **The main tool the RBV has been using is FX transactions, primarily FX sales, to banks.** Over time the RBV cannot continue to undertake net FX sales, since its FX reserves are limited and future inflows of FX are uncertain. Many factors influencing FX flows in the economy are outside the control of the central bank: the level of fiscal stimulus and the government's choices in deficit financing (and rolling over existing debt), relative prices of traded goods and external shocks including for Vanuatu cyclones and earthquakes. But the central bank's use of monetary policy tools can have an important impact on FX flows.
42. **The transmission of the policy rate through the banking system should play a more active role.** The effective policy rate that the RBV applies to the bulk of its engagement with the banks via the SRD and excess reserves is zero, and the weighted-average rate also considering RBV notes is around 10bp. It is not then surprising that the weighted-average VT deposit rate is also low, currently around 33bp, while rates on FX deposits are substantially higher. Increasing the volume of RBV Note issuance, combined with some remuneration of excess reserves (IOER), would raise the effective policy rate and lead to higher deposit rates offered by banks.
43. **Higher deposit rates would affect the behavior of economic agents.** Market feedback indicates that some residents who hold FX choose to keep it until they need VT, since returns on FX balances are significantly higher. Similarly, some residents try to move VT savings into FX,

because of the higher returns available. Greater use of RBV Notes and IOER to push bank deposit rates up to the point where residents voluntarily hold more VT would reduce pressure on the RBV's FX reserves.

44. **Estimated UIP interest rates provide an indication of the likely increase in deposit rates, and thus in the effective policy rate, that is needed.** An increase in the region of 200bp may be needed, though it is impossible ex ante to know precisely, and the necessary increase might be higher or lower. Since the purpose of a more active use of the MPIF would be to preserve FX reserves, interest rates in the economy will need to rise enough to motivate sufficient voluntary demand for VT. This can be achieved via a combination of higher VT deposit rates leading to less demand for FX, and potentially lower demand for some types of loans.¹⁵ While the RBV has an objective of supporting credit to the economy, this must be subordinate to the primary objective of price stability via sustainable exchange rate policies. Moreover, strengthening credibility in sustainability of the exchange rate policy may boost investment.
45. **The level of FX reserves and of inflation do not present an immediate problem, making this an ideal time to undertake the necessary reforms.** Some pressures have been appearing in the FX market and should be addressed before they intensify. Taking a proactive approach would likely reduce the extent to which policy rates need to be tightened and will ease the transition, compared to only reacting to market stress. Moreover, developing market capacity—both the readiness of banks and their customers to move into longer-term deposits or security holdings, and the ability of the government to reliably meet future financing needs from the market—will take time. Detailed discussion below recommends starting with a combination of increasing the stock of RBV Notes and payment of IOER. Over time, OMO may become more important and IOER less so.
46. **Importantly, increasing the effective policy rate applied to the RBV's engagement seems to be affordable.** Some 90 percent of RBV assets—predominantly FX reserves, and a small portfolio of government securities—earn a return in line with likely UIP interest rates, while around 25 percent of liabilities (CIC plus the SRD) are non-interest bearing, and capital is equivalent to over 10 percent of liabilities.
47. **The following sets out the key elements of the MPIF and applies a structured approach to assess their performance.** The assessment framework evaluates the MPIF elements considering criteria such as: effectiveness; robustness; risk and return; cost efficiency and simplicity; market orientation; and financial stability.

Operational Target of Monetary Policy

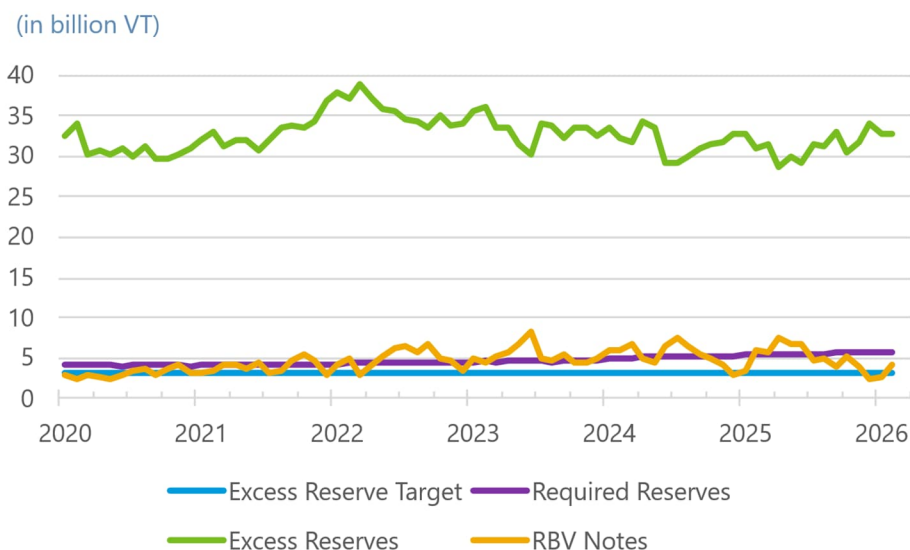
1. Choice and control of the operational target.

48. **In practice, the RBV has maintained the FX peg and FX reserves in support of the peg as operational targets.** Both are reasonably clearly communicated, with FX reserves well above the target minimum of four months' import cover. This supports market confidence in that the exchange rate peg is sustainable, and thus that imported inflation will be kept to a minimum. However, banks indicated a lack of understanding of the RBV's exchange rate policy.
49. **The RBV describes excess reserve balances as an operational target, but it is not used in practice.** The RBV notional target of VT 7 billion reflects an estimate for banks' demand for

¹⁵ In the context of strengthened monetary and exchange rate policy credibility, the impact of an increase in interest rates for corporate loans will to some extent be offset by reduced stress in the FX market and more confidence in future exchange rate stability and low inflation. Note however that remuneration of reserve balances does not impact banks' ability to lend (see Annex III).

reserves. The MPC sets a maximum weekly OMO issuance volume that is far below the level that would be needed to reduce excess reserves to VT 7 billion¹⁶ and there is no target for the stock of RBV notes outstanding.

Figure 5. Bank Reserves and RBV Notes



Source: Reserve Bank of Vanuatu.

50. **Management of the exchange rate peg has been effective, but it is not clear how robust it might be in changing circumstances.** The RBV has not had to make strong use of monetary policy tools—notably, the OMO issuance of RBV notes—to support it.
51. **The implementation framework entails limited financial risk for the central bank.** The operational target of FX reserves is simple to monitor, and stabilization of the exchange rate is supportive of financial stability. At the same time, financial stability is supported by ample liquidity buffers and prudential safeguards.

Recommendations

52. **The RBV should not refer to excess reserves as an operational target.** No attempt is made to bring excess reserves near the stated target, and the market is aware that the level of excess reserves is well above it. As the RBV more actively uses OMO in support of the FX peg, it will in practice be targeting a UIP level for interest rates rather than a specific volume of excess reserves.
53. **The RBV should attach the policy rate to the RBV Notes.** As described in paragraph 62, the RBV should consider anchoring the policy rate to an RBV Note.¹⁷ However, as it transitions in this direction, the RBV should clearly communicate that the policy rate is the ceiling for RBV Note

¹⁶ Excess reserves plus the stock of RBV notes has been in the region of VT38 billion for several years.

¹⁷ For monetary policy implementation, the interest rate operational target may be defined explicitly, through the announcement of a target level or range for a market rate—typically an unsecured overnight interbank rate—or implicitly, as the interest rate applied to a central bank instrument or standing facility. In the absence of an interbank market in Vanuatu, the latter is used. In both cases, by steering the operational target, the central bank anchors short-term market rates to ensure effective transmission of the policy stance to money markets and broader financial conditions.

yields, consistent with its stated internal practice, but not publicly announced. It could consider including this information in tender notices.

Recommendation 4: Stop reference to a monetary aggregate operational target, and transition to attaching the policy rate to a short-term RBV Note. In the meantime, communicate that the policy rate is the ceiling for RBV Notes.

Monetary Policy Implementation Regime

2. Choice of the regime.

- 54. **The RBV's implementation regime is a combination of weekly FX transactions with commercial banks, and weekly OMO sales of RBV Notes.** This broadly makes sense in view of the goals of exchange rate stability and low inflation. The exchange rate peg has functioned effectively for years, and inflation is in low single digits. However, the regime has in recent years depended heavily on FX inflows from government borrowing and donor support, rather than on active use of the MPIF.
- 55. **Sales of FX once a week, and daily publication of the VT exchange rate are in principle supported by the policy rate via RBV Note issuance.** In practice, the RBV does not use OMO to steer short-term market rates (deposit and lending rates) towards the policy rate.
- 56. **There is no formal definition of a corridor system, but implicitly policy rate is between a wide, asymmetric corridor between zero and the overnight lending facility (currently 6.25 percent).**

Monetary Policy Instruments

3. Temporary liquidity providing and absorbing open market operations.

- 57. **The RBV currently auctions RBV notes with maturities of 7, 14, 28, 63, and 91 days three times a month.**¹⁸ A total volume of VT 1.9 billion is offered at each auction, distributed across the different maturities auctioned simultaneously, with a specified offer amount for each security. RBV reserves the right to vary the allotment across maturities once bids are received. Auctions are conducted on a multiple-price basis. In principle, the policy rate sets the maximum yield accepted in RBV Note auctions; but in practice weighted-average yields are well below the policy rate. Banks can choose which maturities to bid for. The RBV's Financial Market Department (FMD) decides which maturities to allocate, sometimes applying discretion with a preference for issuing longer-term notes. In theory, the stock outstanding could vary between VT1.9 billion and around VT 18 billion, but in practice tends to be in the region of VT 5 billion.
- 58. **The purpose of OMO issuance is not clear.** The MPC sets the volume of issuance but does not target the outstanding stock, and does not aim to manage liquidity nor to implement the RBV policy rate via the OMO. There is some indication in the MPC statements that a reduction of OMO issuance would provide banks with more funds to provide credit to the economy. However, banks cannot use excess balances held at the RBV to lend to customers (see Annex III).
- 59. **The RBV note auction mechanism is clear and straightforward to operate, and in principle could be scaled up quickly in time of need.** However, the RBV has not been able to test whether the bank which holds the bulk of excess reserves would be ready to participate in

¹⁸ The February MPC reduced the frequency from weekly to three times a month: there were no auctions in the last two weeks of April as a consequence.

significant volume.¹⁹ Additionally, the calendar of OMO is not fully clear to the market, as auctions (or lack of auctions) are only announced a few days ahead.

- 60. The very low volume of issuance and use of five different maturities at each auction weakens any market incentive for trading, on top of persistent excess liquidity.**

Recommendations

- 61. The RBV should reduce the number of maturities offered.** A smaller range of maturities would give banks more incentive to manage liquidity and, in time, to explore market trading, thereby fostering market liquidity and price discovery. RBV could explore auctioning only 7- and 91-day maturities. To ensure a successful transition, it will be important to discuss with banks which maturities would be most suitable. Adding a 28-day RBV Note could be considered during the transition.²⁰ The RBV should also restore the regular, weekly pattern of Note auctions.

Recommendation 5: Reduce the number of RBV Note maturities to two (7-day and longer term, i.e. 91-day) and restore regular weekly auctions.

- 62. The RBV could explore a transition towards a FRFA 7-day OMO.** Many central banks operate such a system. This would mean selling whatever volume of 7-day notes the banks request, at the policy rate. The FRFA approach also mitigates operational challenges associated with high-frequency liquidity forecasting, as banks reveal their liquidity demand through regular participation in the weekly operation. It is likely that demand would initially be capped by exposure limits imposed by the banks, but that such limits are increased gradually given the higher yield. The RBV should monitor the effect of the increase in OMO on the policy rate transmission.

Recommendation 6: Transition issuance of the seven-day RBV Note to a weekly FRFA auction priced at the policy rate.

- 63. In conjunction, RBV could offer a fixed volume of 91-day notes on a variable-rate basis.** These securities would reduce the amounts of the short-term Notes to be rolled over each week. The 91-day maturity would prevent overlapping with government bills (which in the future are expected to have maturities of six to nine months) and would support the gradual development of term pricing and market activity concentrated in two RBV references. Issuance volumes would be calibrated based on a medium-term estimate of structural excess liquidity to be sterilized, allowing the seven-day instrument to be the main OMO instrument. See Box 2 for guidance on calibration.

Recommendation 7: Issue the longer term RBV Notes through fixed-volume, variable-rate auctions.

¹⁹ Three of the four commercial banks are foreign-owned, and require head office approval for increasing limits to term securities in Vanuatu.

²⁰ Banks can on-sell RBV notes to their customers e.g., the VNPF, insurance companies and individuals. With a regular, weekly auction, automatic roll-over of customer bids might be possible. This could increase demand and competition, and so strengthen transmission of the policy rate.

Box 2. Calibration of RBV Notes

The calibration of the 7-day and the 91-day RBV Notes reflects their distinct roles. The 7-day operation serves as the main tool for managing short-term liquidity conditions and transmitting the policy rate, while 91-day RBV Notes are used to absorb the structural excess liquidity, thereby reducing rollover pressure and supporting money market development.

Under a FRFA 7-day operation, the RBV does not announce a target allotment amount, as banks determine take-up. However, the RBV should ensure that the underlying liquidity position supports a sustained and meaningful level of activity in the 7-day operation. This implies calibrating the stock of 91-day RBV Notes such that the residual liquidity is sufficient to cover banks' reserve demand and a buffer for short-term liquidity shocks. The RBV could consider the former to be around VT 7 billion, based on its current estimate of banks' needs. For the calibration of the buffer, in the absence of daily liquidity data, the mission used the historical distribution of 3-month cumulative changes in autonomous factors derived from monthly data, which suggests that adverse liquidity shocks could reach around VT 4.1 billion (1st percentile).²¹ Given the uncertainty and the lack of granular data, a conservative approach would be to add an additional margin, implying a target outstanding volume for the 7-day operation in the range of VT 16–20 billion.

The 91-day RBV Notes would therefore be used to absorb the remaining structural liquidity. Given current levels of excess liquidity, the RBV could start with a weekly issuance of around VT 1 billion, which would gradually build a stock of approximately VT 13 billion, leaving an ample operational liquidity position to be managed through the 7-day operation.

This calibration should be refined as more information becomes available. In particular, the RBV could estimate the volatility of autonomous factors using daily data, and should forecast liquidity conditions taking into account other potential structural liquidity-absorbing operations it may be considering, such as outright sales of government securities.

The calibration of the operational liquidity position is therefore inherently iterative. A relatively conservative initial approach can help ensure effective control of short-term interest rates in an environment of limited data and forecasting capacity. As the RBV gains experience with the framework, the balance between 7-day and 91-day operations can be progressively adjusted to better align with liquidity conditions.

64. **Decisions on the volume of Note issuance should be delegated to the FMD, in consultation with the Governor or a delegated decision-making body.** RBV may at times need to respond to market developments before the next quarterly MPC meeting. It is appropriate for the MPC to set interest rate policy, but not necessary for it to provide detailed guidance on implementation: this may restrict the ability of FMD to operate effectively in support of the monetary policy goals.

Recommendation 8: Delegate decisions on OMO calibration from the MPC to the FMD in consultation with the Governor or a delegated decision-making body.

²¹ Autonomous-factor shocks are estimated by constructing net liquidity (NFA minus currency in circulation and government deposits) from monthly data and computing three-month cumulative changes, with percentiles of the resulting distribution used to gauge adverse liquidity shocks.

4. Open market operations: outright purchases and sales of securities.

65. **In principle, the RBV stands ready to buy back RBV notes at any time, upon request from a bank.** In practice this is not exercised as the volume of RBV note issuance is low and banks have ample liquidity. The VNPF indicated that it too could sell securities outright to the RBV if it needed liquid funds.
66. **Under the new RBV Act, the central bank may buy and sell government securities in the secondary market only, although purchases in the primary market remain permitted during the 10-year transition period.**

Recommendations

67. **The option for holders to sell securities back to the RBV is unnecessary and should be discontinued.** It reduces the robustness of liquidity management and increases complexity and risk for the RBV. The RBV would still maintain the ability to buy the securities at its discretion.

Recommendation 9: Eliminate option for holders to sell RBV Notes back.

5. Standing facilities: liquidity providing and absorbing.

68. **There is a standing overnight credit facility, as well as an intraday credit facility, both collateralized and priced at 250bp above the policy rate.** Neither has been used for several years, in view of the large excess reserve balances in the system. There is no standing facility for absorbing liquidity. There is no deposit facility and excess reserves are not remunerated.

Recommendations

69. **RBV should consider reducing the spread of the credit/liquidity facility over the policy rate to 150bp.** If the spread is too high it can encourage liquidity hoarding instead of market activity.

Recommendation 10: Set the overnight lending facility at 150bp over the policy rate.

70. **The RBV should use IOER to support the pass-through of the policy rate.** IOER can be introduced immediately, whereas increasing the volume of Note issuance will require the foreign banks' head offices to approve increased limits, which may take time.
71. **The IOER should be set by reference to the RBV's policy rate.** Initially, the IOER could be set conservatively e.g., 150bp below the policy rate. International experience suggests this would translate into higher remuneration of VT deposits and strengthen competition among commercial banks for VT funding,²² especially when IOER is clearly communicated to economic agents. Depending on effectiveness (the impact on VT deposit rates and, indirectly, on demand for FX) and considering the impact on the balance between RBV Notes and reserve balances earning the IOER, the MPC could vary the margin from time to time.

Recommendation 11: Remunerate excess reserves at the policy rate minus 150 basis points.

72. **Several parameters of the design on the monetary policy instruments should be reviewed.** See Box 3 for key examples. Annex IV provides a description of the current MPIF in Vanuatu that could be used as a guide for the elements to be communicated. Where applicable, the RBV

²² This would not reduce banks' ability to lend as explained in Annex III.

should provide updates and links to the detailed regulation, operational guidelines or data sources that govern the instruments.

Recommendation 12: Review and update the design and communication of monetary policy tools, including objectives, instruments, and operating conditions.

Box 3. Strengthening of Monetary Policy Instrument Design

Policy Rates

- The RBV should harmonize the terminology used to refer to its official rates. The Policy Rate (helpfully visible on the internet front page) is in various places referred to as the Discount Rate, the Rediscount Rate, the Main Rate, and the Official Rate. A higher rate that would apply both to the overnight standing credit facility, and to any provision of LOLR credit, is referred to as the Repo Rate, the Overnight Rate, and the Applicable Rate.

RBV Notes

- Auctions are held on Wednesdays, with T+0 settlement. The auction system is open from 11:30 a.m. to 1:30 p.m., and results published by 2:00 p.m. This can be reduced. Given a regular, weekly offering, the system should not need to be open for two hours. Commercial banks could be encouraged to ensure that submitted bids can be authorized in a timely manner (or RBV could drop the requirement for secondary authorization of bids submitted by a bank).
- If bids are entered into the system but not confirmed by the bank's designated authorizer before the cut-off time, the RBV contacts the bank and can accept authorization later on. RBV staff explained that commercial bank management travel schedules may mean that the authorizer is abroad, and more time is needed.
- Results of the auction are published on the RBV website, including the range of yields at which the notes are sold. It would be more usual to publish only the cut-off yield and the weighted-average yield. The range of yields received does not need to be published: publishing the yields of unsuccessful bids may mislead the market, while the spread between the cut-off and weighted-average of successful bids provides more helpful information than publishing the lowest accepted yield.

Overnight Lending Facility

- RBV should review the cut-off time for standing credit facility requests. The standing credit facility window closes at 2:00 p.m. each day, but the real-time gross settlement (RTGS) payment system remains open until 4:00 p.m., with the result that payments could be delayed until the following day. While the facility is not currently needed by banks, this could change in the future.

Communication

- The RBV should review references in statements and reports to factors impacting the exchange rate. Under the exchange rate peg, movements of the VT vis-a-vis the major currencies are purely a function of cross-rates between the basket currencies and the basket weights, rather than a consequence of developments in economic and financial conditions. Such wording may lead banks and other market participants to assume that the VT might move in unpredictable ways, which is not the case.
- Make public all elements of the operational framework, including objectives, instruments, and operating conditions.

6. Reserve requirements.

73. **The SRD is reasonably well designed but could be improved with several changes.**²³ The SRD ratio of 5.5 percent (unchanged since 2023) applies to VT deposit liabilities of banks (in principle excluding any interbank trades). In the case of FX deposits, the SRD applies only to sight deposits (currently less than half of FX deposits) and at 50 percent of the VT SRD ratio. As FX accounts for around 1/3 of total deposits, the different treatment is material. There is no clear reason for maintaining the differential, which affects the effectiveness of this instrument. Increasing the attractiveness of Vatu deposits in relation to FX deposits will encourage residents holding FX to sell it, thus providing more FX liquidity to the banking system.
74. **SRD against both VT and FX liabilities are paid in VT.** Account dollarization is around one quarter of aggregate bank balance sheets, but banks hold substantial liquid assets in FX, and three of the four banks are foreign owned. It could be expected that regional groupings would support liquidity needs.
75. **The SRD is not remunerated, and there is no provision for averaging.** The SRD is calculated on the basis of the two months' regulatory reports preceding the current month. Thus, the May SRD is calculated on the basis of the February and March end-month data, and applied for the calendar month.

Recommendations

76. **There is no reason to maintain a differential favoring FX deposits.** The harmonization of SRD requirements is advised and will imply an increase in the requirement for FX liabilities. Although the SRD for FX liabilities can continue to be fulfilled in VT, the RBV should consider fulfillment in USD and held in a separate account to strengthen FX liquidity buffers and mitigate risks associated with financial dollarization.²⁴ To smooth the transition, the requirement to fulfill SRD in USD could initially apply only to the incremental increase in FX reserve requirements.

Recommendation 13: Harmonize the SRD across currencies, such that the same rate applies to all VT and FX deposit liabilities.

77. **Secondly, the RBV should prepare for the possible introduction of SRD averaging.** While averaging might not have a substantial impact immediately, in view of the high level of excess reserves, it could be useful for those banks that have relatively low levels of excess reserves. Averaging would become important at such time as the RBV needs to manage liquidity more proactively in order to guide short-term interest rates to the desired level.²⁵ Averaging of any SRD held in FX would not be allowed, even if averaging is introduced for Vatu SRD balances. See Annex V for description of reserves averaging. Further IMF TA could be provided for SRD enhancement.

Recommendation 14: Introduce averaging of SRD.

²³ IMF, MCM Technical Assistance Handbook: Reserve Requirements. July 2022.

²⁴ Note that switching the SRD on FX deposits to be fulfilled in FX would increase excess VT deposits marginally, and also increase the cost of introducing IOER.

²⁵ As SRD are kept in the banks' ESA accounts, allowing averaging should be relatively straightforward, but it is important to check the readiness of the RBV's IT system to monitor it. At such time as it is introduced, the Reserve Maintenance Period should be structured as 4 to 5 week periods (depending on the month) and ending mid-week. Account should be taken of balances over weekends and public holidays, not just week days.

78. **Ideally, SRD balances should be remunerated at or close to the policy rate.** This would eliminate the implicit tax on bank intermediation and support transmission of the monetary policy stance. Under a parsimonious approach, IOER is prioritized in the near term because it more directly raises the floor on the return to excess liquidity.
79. **The RBV should assess the cost implications of the revised operational framework.** While the balance sheet structure suggests that a higher effective policy rate should be affordable, the introduction of IOER, higher RBV Note issuance, and SRD remuneration would increase interest expenses and reduce profitability. The RBV could use balance sheet stress testing to assess the impact on net income and capital buffers. Further IMF TA could support this assessment.

Supporting elements

7. Counterparty framework.

80. **The RBV counterparty framework is straightforward: authorized commercial banks are members of the RTGS payment system, subject to SRD, can participate in OMO and access liquidity facilities.** The Vanuatu Commodities and the provident fund (VNPF) in the past had accounts at the RBV, and the latter has expressed interest in re-opening an account and thus using the National Payment System (NPS).
81. **The counterparty framework is standard, and appropriate for the current size and structure of the market.**
82. **Any expansion of the counterparty framework beyond depository institutions needs to be considered carefully.** The VNPF could be allowed an account for managing its securities portfolio; but would not need access to credit facilities, and any Vatu balances should not benefit from a future introduction of IOER. Access to the payment system might entail requests to the liquidity facility as well. The RBV would need to consider the benefits and costs of opening access to the NPS to any other institutions. Non-bank financial institutions (NBFIs) such as the Rural Development Bank or the three mobile payment operators might also request access to the NPS.

8. Collateral framework.

83. **The RBV accepts as eligible collateral all government securities and RBV notes for use in any OMO and in the standing lending facilities.**²⁶ All banks participate in the regular RBV Note auctions, but Treasury Bill issuance is sporadic (one 3-month Treasury bill was sold in November 2025, but not rolled over on maturity) and only two banks participated in the auction.²⁷ Treasury bond issuance is even more irregular: no bonds have been issued since July 2025, and only one bank holds any. Some government bonds are held by individuals.
84. **The volume of collateral available to the market should in principle increase in line with the potential need for banks to borrow from the RBV (or from other banks).** While in theory excess reserves could be absorbed by selling FX, in practice absorption will happen largely through the issuance of OMO and government securities.

²⁶ These are the same eligible asset classes for the LOLR operations.

²⁷ Non-banks, including individuals, can participate directly in treasury bill auctions. A non-competitive facility is available for individual bidders.

85. **Valuation of collateral cannot be done on a market basis, as there is no secondary market trading of securities.** The RBV does have criteria for haircuts, based on its policy rate plus a margin of 250bp.
86. **The RBV is developing repo documentation based on the framework used in Fiji, which is familiar to banks in the region.** It is important for the RBV to ensure that banks and their head offices are ready to use the repo documentation.

Recommendations

87. **The collateral framework should be reviewed and a framework for LOLR developed.** While the collateral framework currently does not constrain operations, it should be reviewed to ensure it is robust and sufficiently flexible, while containing risks to the RBV balance sheet. At the same time, the LOLR framework should be further developed to govern the provision of emergency liquidity assistance (ELA) to banks facing temporary liquidity stress. TA can support these objectives.

Recommendation 15: Review collateral framework to ensure sufficient eligible assets and appropriate risk controls for liquidity operations.

Recommendation 16: Strengthen the formal lender of last resort framework, including access conditions, eligible collateral, and operational procedures.

88. **As far as possible, the repo documentation itself, and the articulation of the purposes for which the repo might be used, should be separated from the documentation of RBV facilities (intraday, overnight and LOLR credit).** For instance, one document could cover the provision of intraday credit and the overnight standing credit facility, a second could cover the definition of eligible collateral for operations with the RBV. A different document might cover LOLR functions. The legal repo agreement would be used for all the RBV's credit operations, but with different maturities and interest rates (and, in the case of LOLR, additional supervisory intrusion etc.). The same, or very similar, legal agreement could then be used for any repo transactions between banks, and between banks and their customers. The RBV could usefully examine the ICMA GMRA Repo documentation to see the approach taken elsewhere.

Recommendation 17: Establish a structured and regular dialogue with banks to inform monetary operations design and foster markets development.

89. **RBV should prepare for the possible use of FX as collateral.** If a bank in need of liquidity lacked sufficient Vatu securities, RBV could consider lending against the security of FX (assuming the bank held usable FX assets). Appropriate legal documentation could use a version of an FX swap agreement (such as the ICMA documentation).

C. Liquidity Forecasting

Liquidity Forecasting at the RBV

90. **Liquidity forecasting at the RBV is conducted on a weekly basis with a short-term horizon and limited operational use.** The FMD prepares a one-week-ahead forecast in Excel, primarily based on recent balances of NFA and net credit to government, adjusted for expected flows. A liquidity table is produced combining these projections with expected OMO changes—mainly compensating for the previous week's liquidity changes—to estimate reserve levels after RBV operations.

91. **Daily data on the main autonomous factors is available and could be used to strengthen liquidity forecasting.** Currently the data is generally provided to the FMD on a weekly basis following a valuation reconciliation process, which may face delays, particularly at month-end. However, daily data on CIC, bank reserves and government account balances is readily available, and for the NFA the FMD could use the FX operations it conducts. This could support higher-frequency and more accurate liquidity forecasts. The RBV has also recently received training and the codes for the MCM liquidity forecasting toolbox, although implementation has not yet started.
92. **The forecasting framework is constrained by limited coordination with government cash flows.** Government balances are held mainly at the RBV, with balances at commercial banks maintained to cover payments. There are no formal arrangements for information sharing with the government to support cash flow projections.
93. **Liquidity forecasts are not used to guide operations, as RBV Notes volumes are calibrated independently.** The liquidity table outcome is used within the Financial Markets Department for monitoring purposes only, while OMO calibration is pre-determined by the MPC and the Board. RBV Notes issuance is based on a maximum level of outstanding amount intended to influence lending activity.
94. **Forecast outcomes are not systematically monitored, reflecting both capacity constraints and the limited role of forecasts in decision-making.** The RBV does not assess forecast accuracy, identify key drivers of liquidity volatility, or refine its forecasting approach over time.

Analysis of Autonomous Factors

95. **Short-term liquidity monitoring and forecasting is based on an assessment of projected changes in the main components of the central bank's balance sheet to estimate liquidity conditions.** The demand for bank reserves is composed of required reserves and excess reserves, while the supply corresponds to the sum of the autonomous liquidity position and the central bank's operations. By comparing the forecasted demand and the projected autonomous factors of the supply of bank reserves, the central bank estimates of the excess supply of (or excess demand for) liquidity in the system. Based on this estimate, the central bank decides how to adjust its net policy position to achieve the desired liquidity conditions consistent with its interest rate target (see Box 4 for a conceptual framework underlying short-term liquidity monitoring and forecasting).

Box 4. Conceptual Framework for Liquidity Monitoring and Forecasting

Short-term liquidity monitoring and forecasting is based on an assessment of projected changes in the main components of the central bank's balance sheet, distinguishing between the demand for liquidity and supply of liquidity (see Annex VI for more detail of the conceptual framework). For analytical purposes, the balance sheet can be simplified by consolidating the external position of the central bank and its net position with the government, while aggregating the remaining assets and liabilities (other items net/net domestic assets). This representation allows for a structured identification of the main drivers of liquidity conditions (Table 5):

Table 5. Stylized Balance Sheet of the Central Bank

Assets	Liabilities
Net foreign assets	Currency in circulation
Net lending to banks/OMOs 1/	Bank reserves (required and excess)
Other items net/Net domestic assets	Net position of the government 2/
1/ In countries where there is a structural excess liquidity, the net “policy” position with banks can be on the liability side, for instance when the central bank absorbs liquidity by issuing its own securities. 2/ In countries where the central bank is allowed to provide direct credit to the government, the net position of the government may appear on the assets side.	

The demand for bank reserves is defined as the sum of required reserves and excess reserves.

Demand for bank reserves = Required reserves + excess reserves

The supply of bank reserves can be derived as shown in Figure 6. The first four items contain all factors that are beyond the control of the central bank in the very short run or, more generally, not related to monetary policy actions. These items are called the “autonomous liquidity position.” In contrast, the central bank’s “policy position” which comprises central bank direct lending to banks and net lending through OMOs is under the immediate control of the central bank. The supply of bank reserves is defined as the sum of the autonomous liquidity position and the policy position. The net policy position accounts for operations that have been carried out in the past and come into effect later, like the redemption of repo or reverse repo agreements, maturing refinance credit and the like.

Figure 6. Supply of Bank Reserves

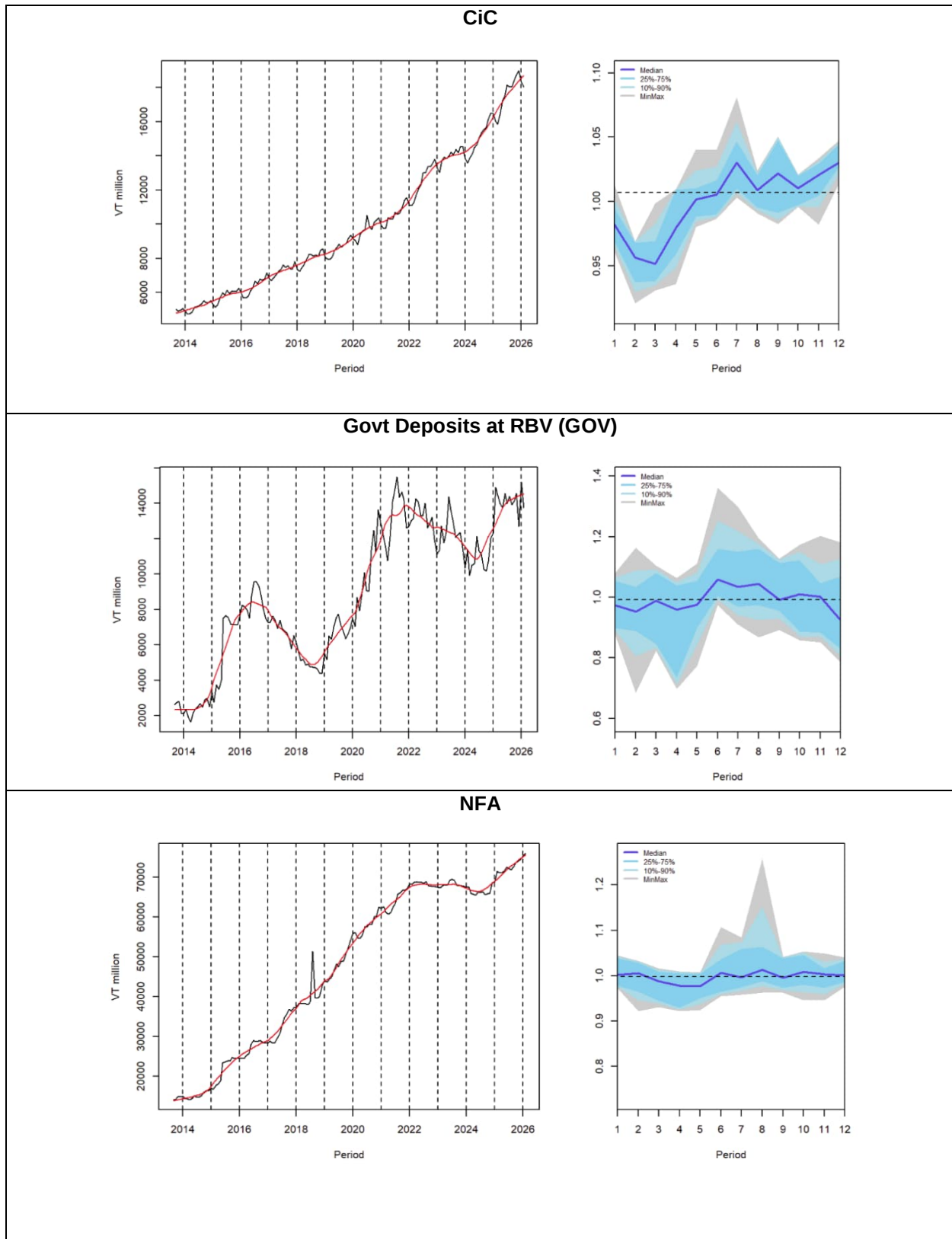
Supply of bank reserves	=	Net foreign assets	} Autonomous Liquidity position
	+	Net position of the government	
	+	Other items net	
	-	Currency in circulation	
	+	Net lending to banks/OMOs	} Policy position

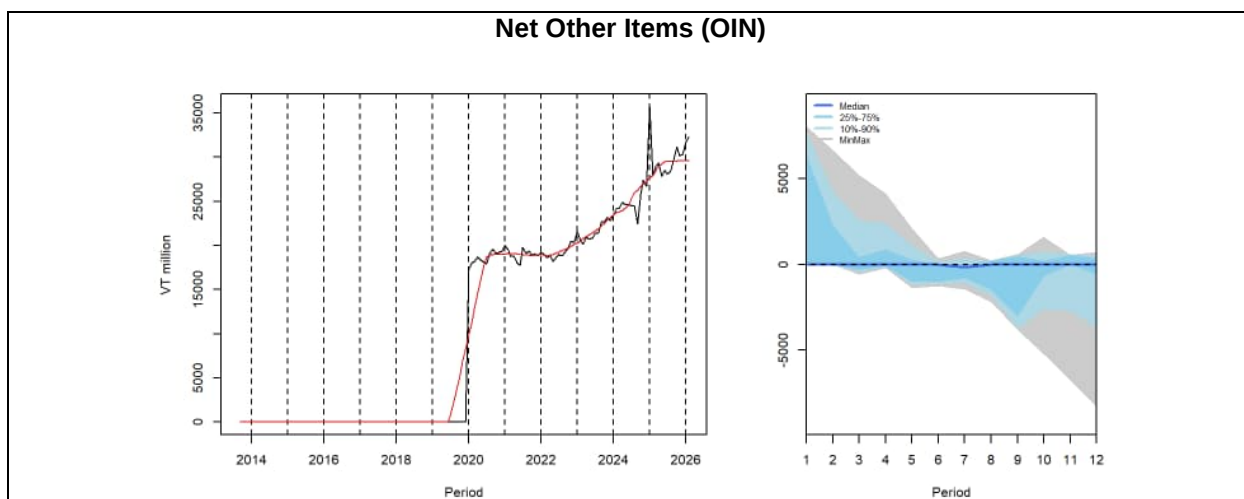
By comparing the forecasted demand and supply of bank reserves, the central bank receives an estimate of the excess supply of (or excess demand for) liquidity that results if the central bank does not intervene. Based on this estimate, the central bank decides how to adjust its net policy position to achieve the desired liquidity conditions.

When the central bank targets a short-term interest rate (typically overnight) it uses the projected daily excess supply or demand for reserves to determine the amount it has to withdraw or inject daily into the market with its OMOs. The relationship is less strict if the central bank steers the overnight interest rate within a corridor or has reserve requirements with averaging provisions in place. Then, the central bank only reacts to accumulated imbalances over the entire maintenance period, as the system of reserve requirements works as a stabilizer. In its absence, the central bank may need to manage liquidity conditions more on a day-to-day basis.

96. **The mission employed an R statistical language-based liquidity forecasting toolbox developed by the IMF to analyze key autonomous factors.** The analysis focuses on monthly CIC, GOV, NFA, and OIN. The toolbox was first used to examine the trend and seasonal properties of these series, with the objective of assessing the extent to which systematic patterns could strengthen liquidity monitoring.

Figure 7. Visual Exploration of Autonomous Factors





Source: Reserve Bank of Vanuatu, IMF staff calculation.

97. **Figure 7 presents the decomposition of monthly CIC, government deposits at the RBV, NFA, and OIN into trend and seasonal components over the sample period January 2014–January 2026.** The analysis highlights clear differences in the behavior of the main autonomous liquidity factors (ALF) in terms of trend dynamics, seasonality, and overall predictability. While some series exhibit stable and well-defined seasonal structures alongside persistent trends, others are largely driven by irregular movements and structural shifts, limiting their usefulness for statistical forecasting.
98. **CIC is characterized by a strong and persistent upward trend over the sample period, consistent with the steady expansion of currency demand associated with economic growth and changes in payment behavior.** The trend is smooth and stable, with relatively limited short-term deviations. In addition, CIC exhibits a clear and well-defined annual seasonal pattern, with lower levels typically observed at the beginning of the year and higher levels toward the latter part of the year. This combination of a stable trend and consistent seasonality makes CIC highly predictable in the medium to short term.
99. **Government deposits at the RBV display a more volatile pattern.** While the series exhibits broad cyclical movements over time, the underlying trend is less stable than that of CIC, reflecting fluctuations associated with fiscal operations and liquidity management. Seasonal effects are present but relatively weak and less stable than those observed for CIC. In particular, the decomposition suggests some tendency for higher balances around the middle of the year in general. The seasonal structure is also overshadowed by irregular fluctuations, indicating that government deposits are driven primarily by the timing and uncertainty of fiscal transactions rather than strong and systematic calendar effects.
100. **NFA shows a pronounced upward trend over the sample period, reflecting the sustained accumulation of foreign assets.** However, unlike CIC, the series does not exhibit strong or stable seasonality. Any seasonal variation is relatively modest and is largely overshadowed by irregular movements and occasional shifts driven by external inflows and outflows. As a result, the behavior of NFA is primarily trend-driven, with limited predictable seasonal structure.
101. **OIN exhibits a structural break around 2020, after which the series shifts to a higher level and continues an upward trend with occasional spikes.** As a result, the trend is not stable over the full sample period. Seasonal effects are weak and inconsistent, while irregular fluctuations and structural changes dominate the behavior of the series. This limits the reliability

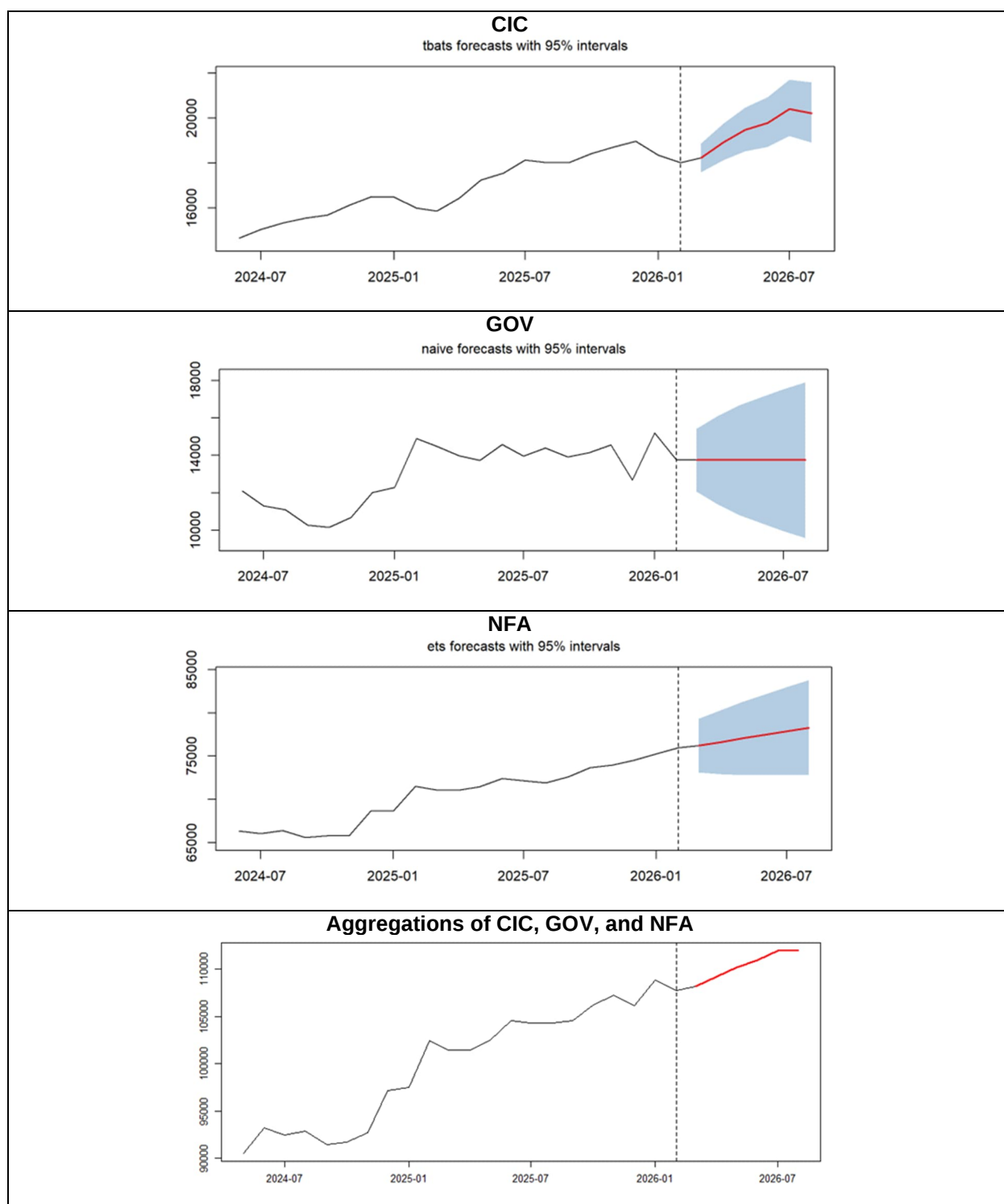
of standard time-series forecasting methods and increases the need to incorporate institutional knowledge to support interpretation and forecasting.

- 102. Overall, the decomposition highlights substantial heterogeneity in the predictability of autonomous factors.** CIC stands out as the most predictable series due to its stable trend and strong seasonal pattern. Government deposits and OIN are largely driven by irregular and structural factors, making them more difficult to forecast using statistical methods alone. NFA lies in between, with a strong trend but limited seasonality. These differences underscore the importance of complementing model-based tools with institutional knowledge and timely information for effective liquidity management.

Medium-term Forecasting

- 103. The IMF toolbox is designed for short-term liquidity forecasting, operating under the assumption that macroeconomic and monetary conditions do not change substantially over the forecast horizon.** This is a reasonable assumption for short-term horizons, and while it is not fully representative for medium-term projections, the toolbox can nonetheless be applied to produce six-month ahead forecasts using monthly data.
- 104. Six-month-ahead forecasts were produced using monthly data for CIC, GOV, and NFA.** OIN is excluded from the forecasting exercise due to the structural break observed from 2020 onwards. The selected models are TBATS for CIC, Naïve for the GOV, and exponential smoothing (ETS) for NFA, with model selection based on the best performance according to validation-set error metrics. Forecast evaluation was conducted using a validation set covering the period from Jan 2025 to Feb 2026, approximately one full year. Figure 8 present examples of the medium-term forecast evaluation for each series under the selected models. It is important to note that the most appropriate model can vary across forecast horizons; the model that performs best for short-term monthly forecasts may not be optimal for a daily forecast.

Figure 8. Medium-term Forecasts for Autonomous Factors



Source: Reserve Bank of Vanuatu, IMF staff calculation.

- 105. The IMF toolbox can also generate short-term daily forecasts based on a comprehensive evaluation of historical data, utilizing an automated process to compare the performance of various statistical models.** It systematically creates a diary of past forecasting performance,

employing a rolling origin evaluation scheme to simulate out-of-sample prediction scenarios and to assess the accuracy and bias of different forecasting approaches. By leveraging extensive validation sets and well-established error metrics (Root Mean Squared Error (RMSE), Mean Absolute Error (MAE), and Mean Error (ME)), the toolbox selects the most suitable model for each series. Short-term forecasts were not generated as only monthly data was provided to the mission.

Recommendations

- 106. Strengthening liquidity forecasting capabilities would support a more systematic framework for calibrating RBV's monetary operations.** Bank reserves projections (i.e., for the following two weeks) should be integrated into a liquidity table that links autonomous factor forecasts with reserve targets and monetary operations. Specifically the liquidity table would include: (i) projected autonomous factors; (ii) monetary instruments' use, maturing and planned. It would also compare the resulting reserve position to the minimum reserve requirement and the precautionary demand for reserves (see Table 6 for a sample liquidity table).

Table 6. Sample Short-term Liquidity Table

Item	T (Actual) - Stock	Forecasts Flows									
		T+1	T+2	T+3	T+4	T+5	T+6	T+7	T+8	T+9	T+10
1 Autonomous Liquidity Factors (ALF) Forecasts											
1.1 Currency in Circulation (CIC)											
1.2 Net Foreign Assets (NFA)											
1.3 Net Claims on the Government (NCG)											
1.4 Net Claims on Other Sectors (NCO)											
1.5 Other Items Net (OIN)											
2 Monetary operations - Central bank info- maturing OMOs, new operations.											
Monetary operation											
- New Contracts											
- Maturing Contracts (including interest payment due)											
Net Fine Tuning Operations											
3 Banks' reserves											
Mandatory Reserve Requirement											
Precautionary reserves											
4 Suggested Open Market Operations (1+2-3):											
+ve:- sterilization OMO											
-ve:- refinancing OMO											

- 107. This would enhance liquidity conditions monitoring and inform operation calibration.** Short-term forecasts would be used to identify potential liquidity mismatches where intra-week fine-tuning operations may be needed, and medium-term forecasts employed for the sizing of structural liquidity absorption operations.
- 108. Improving liquidity forecasting capabilities is a long-term commitment requiring several elements.** Adoption of modern forecasting software, such as the R statistical computing language, facilitates the implementation of model-based projections and enables the use of advanced statistical models. Team training is necessary to build confidence in model outputs, understand the information used, and maintain or improve models over time. Close collaboration with relevant authorities, such as the Ministry of Finance, can enhance forecast accuracy by providing timely updates on government cash flows. Maintaining a diary of forecast performance, including any judgmental adjustments, supports evidence-based improvements and ensures that medium-term forecasts evolve with the operational realities of liquidity management. Finally, effectively communicating forecast uncertainty to stakeholders is essential to convey the expected range of liquidity conditions, rather than a single deterministic path.

109. **Adopting advanced, data-driven methods for analyzing autonomous liquidity factors will strengthen the central bank's capacity to anticipate and respond to changes in system-wide liquidity.** The establishment of a dedicated liquidity forecasting team with adequate training in the application of statistical forecasting tools and evaluation of forecast performance is essential to upscale capabilities. The FMD could take advantage of the available daily autonomous factor data to begin implementing the IMF liquidity forecasting toolbox, while future TA could provide additional training to help consolidate forecasting practices and operational use of the framework.

Recommendation 18: Establishing a liquidity forecasting team with technical capacity to analyze and forecast the autonomous factors of liquidity. Further TA can support this objective.

110. **Improving the predictability of government cash flows would enhance the central bank's ability to assess liquidity conditions.** Formalizing the regular exchange of government cash-flow forecasts, including advance notification of large or atypical transactions could improve the accuracy and usefulness of liquidity monitoring. Annex VII provides a guide for information sharing arrangements that can be included in an MoU.
111. **The RBV should explore the feasibility of maintaining more centralized government balances and align the remuneration with that of excess reserves held by commercial banks.** Materiality of other government balances in the system's liquidity should be assessed to determine the convenience of establishing a Treasury Single Account to enhance liquidity predictability and management. A remuneration arrangement would seek to preserve neutral incentives for the government to maintain deposits at the RBV, rather than seeking higher returns at commercial banks. A shift of government deposits toward commercial banks could increase excess liquidity and volatility, while the associated funds would likely return to the RBV as excess reserves, requiring remuneration by the central bank in any case.

Recommendation 19: Engage with Ministry of Finance to establish an MoU with formal information sharing mechanisms, assess the feasibility of remunerating deposits and setting up a Treasury Single Account.

112. **Figure 9 presents an implementation roadmap with the main, broad recommendations.**

Figure 9. Implementation Roadmap

Immediate	Near Term	Medium
• Clarify monetary policy framework • Decide and communicate changes to operational framework • Monitor UIP, country risk premium and FX flows.	• Anchor policy rate to a 7-day RBV Note • Absorb surplus liquidity with 91-day RBV Note • Remunerate excess reserves at 150 bp below the policy rate • Introduce reserve averaging • Harmonize SRD across currencies	• Strengthen liquidity forecasting and fiscal coordination • Review collateral framework and establish ELA policy • Promote financial markets development.

Recommendation 20: Communicate clearly and in advance any changes to the operational framework, including their expected positive impact on exchange rate stability and policy transmission.

Annex I. Conceptual Framework for Liquidity Management under a Pegged Exchange Rate Arrangement and Perfect Capital Mobility

1. Under a fixed exchange arrangement, the ultimate objective of monetary policy is **price stability**, and the intermediate objective is **exchange rate stability**. The exchange rate plays the role of nominal anchor as the central bank fixes the price of the local currency against another currency or a currency basket and does not control the volumes of its foreign exchange (FX) interventions. Under the currency board rule, the central bank can issue the local currency liabilities only against FX reserves, whereas under fixed exchange rate regimes, the central bank is usually required to maintain a minimum statutory coverage ratio.

Figure A1.1. Monetary Policy, Exchange Rate, and Capital Mobility

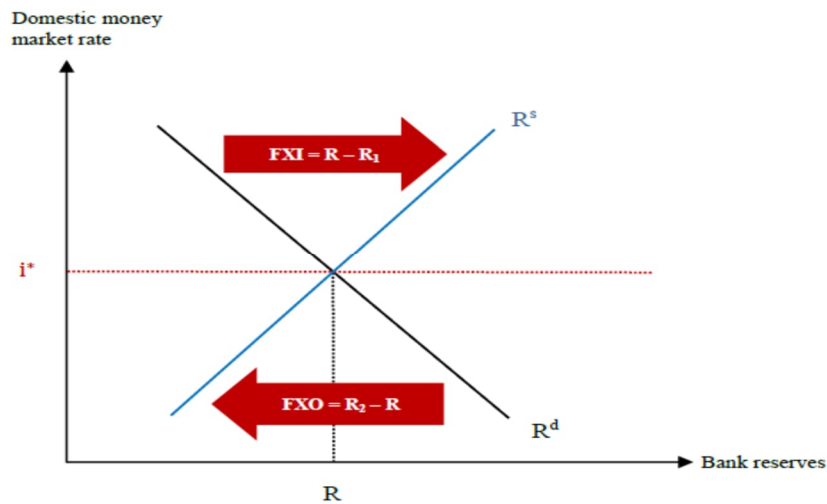


Source: IMF.

- In theory, under a fixed exchange rate arrangement and perfect capital mobility, **liquidity management relies essentially on FX flows**. In a system where banks can buy and sell FX freely without any attached costs¹ to converting local currency in FX and conversely, and without any country and counterparty risk, any decrease in banks reserves at the central bank at a level below equilibrium will lead to an immediate increase in domestic short-term rates that immediately trigger FX inflows which will exactly offset the shortage bringing the level of bank reserves back to equilibrium. Similarly, any increase of banks reserves will trigger FX outflows which will offset the increase in banks reserves bringing it back to the equilibrium level. Hence, in the absence of frictions, any shortage or excess in banks reserves is offset by FX flows in a seamless fashion and does not rely on the central bank intervention in the money markets.

¹ Neither in term of transaction costs, bid ask spread, nor in FX settlement value dates.

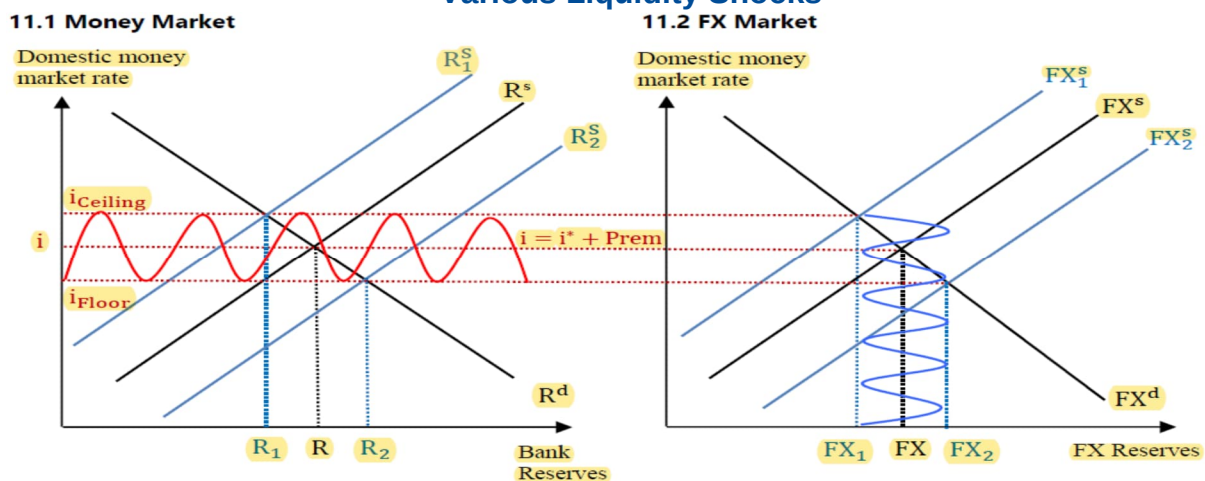
Figure A1.2. Automatic Adjustment through Capital Flows Under the Assumption of No Frictions



Source: El Hamiani M. and Veyrune R. (2019).

2. **Nevertheless, the presence of frictions in the money and FX markets hampers the automatic liquidity adjustment and lead to excessive volatility of the domestic interest rate around the level implied by the Uncovered Interest Rate Parity (UIP) condition.** Frictions may arise from counterparty limits, liquidity, capital prudential regulations and FX transactions costs, among others. They impact the speed of adjustment to various types of liquidity shocks such as Term of Trade shocks, changes in an autonomous factor of liquidity affecting the supply of reserves or change in the demand for reserves. As a result, the domestic money market rate, FX reserves, and bank reserves at the central bank will revert to their initial equilibrium position. However, in the meantime, volatility in all these variables may have been large depending on the size of the shock.

Figure A1.3. Money and Foreign Exchange Markets Dynamics in Response to Various Liquidity Shocks



Source: El Hamiani M. and Veyrune R. (2019).

3. **Ultimately, friction costs and other impairments of the seamless liquidity adjustment could un-anchor short-term money market rates and even jeopardize financial stability.** Volatile liquidity conditions can increase the precautionary demand for reserves, leading to an increase in funding costs and lending rates. They can also undermine market development and endanger financial stability. In the case of adverse Term of Trade shocks or sudden capital outflows, higher domestic interest rates may not trigger enough capital flows in the short-term to offset the liquidity shocks. In extreme circumstances of sizeable liquidity shortfalls, domestic interest rates may have to remain high, potentially leading to liquidity pressures in the banking sector, which could also affect banks' solvency. On the other hand, if capital outflows do not respond to low domestic short-term rates, excess reserves may become persistent, which deters the development of the money market and, in turn, limits the market capacity to absorb idiosyncratic liquidity shocks.
4. **Hence, there is a need for central bank intervention to stabilize short-term interest rates at the appropriate level which would keep the foreign reserves at the central bank stable over the medium term.** Under a pegged exchange rate and no capital controls, the specific challenges for liquidity management are to: (i) identify fundamental changes in the exchange rate equilibrium without absorbing them; and (ii) identify and absorb the volatility that does not represent a fundamental change in the exchange rate equilibrium. Hence, the central bank's liquidity management aims at reducing interest rate volatility, by providing room for intertemporal smoothing of liquidity shocks. The central bank can either opt for a market-based policy rate in line with the endogenous interest rate setting or can set its policy rate in line with the UIP condition. The choice between the two options depends on whether the country risk premia can be estimated and whether the market or the central bank is in the best position to determine the allotment amount.
5. **Under an endogenous market-based interest rate setting, the central bank will implement a floating interest rate corridor centered around a variable rate and fixed allotment main open market operation.** In presence of structural excess liquidity, the central bank issues a fixed amount of debt securities which rate is allowed to fluctuate with the demand and supply of reserves in the money market reflecting the capital flows. The fixed amount is usually derived from the forecasts of the autonomous factors and the estimation of the demand of reserves. As this may still lead to high interest rate volatility, frequent operations and reserve requirement averaging are needed to smooth minor and temporary liquidity shocks. The reserve requirement is higher than in other arrangements due to large and less predictable autonomous factors swings. Standing facilities are set at a margin of the open market operation average rate. The spread between the liquidity management facilities, if they are introduced, is usually rather large as it should be greater than the friction costs to avoid preventing the automatic adjustment.
6. **Alternatively, the central bank will exogenously set the interest level that is balancing the FX flows in line with the implied level from the UIP or with the expected policy rate of the country to which it is tied to under a forward-looking approach.** Under this set-up, a misalignment between the interest rate set by the central bank and the equilibrium interest rate could occur. If the policy rate is set too low, the peg could become under pressure if counterparties use the standing credit facility to purchase FX against domestic currency collateral and speculate against the currency. If the rate is set too high, the central bank balance sheet inflates, which represents a fiscal cost, and excess liquidity will hamper market development. The central bank can implement a mid-corridor with a fixed-rate full-allotment open market operation or a floor-rate corridor set at the policy rate. Same considerations for the width of the interest rate corridor, frequency of operations, reserve requirement level and averaging apply.

Annex II. Cross-Country Risk Premium Analysis: A Panel Data Approach

Uncovered Interest Rate Parity

1. **The uncovered interest rate parity condition is one of the building blocks in open economy macro models.** It is based on an arbitrage condition for a risk neutral investor whereby the return on an investment in domestic currency should ex-ante equal the return of a similar investment in a foreign currency adding the expected gain or loss coming from the exchange rate, e.g., a positive (negative) interest rate differential versus a foreign currency is related to a depreciation (appreciation).

2. **In terms of equation:**

$$i_t - i_t^* \approx (E_t(s_{t+1}) - s_t)/s_t$$

where:

i_t is the one period domestic interest rate

i_t^* is the one period foreign interest rate

s_t is the exchange rate of domestic currency versus foreign currency.

3. **In practical terms, the implication of this arbitrage condition is that countries with currencies that are expected to depreciate (appreciate) should have to pay a premium (discount) over foreign interest rates, a *currency risk premium*.** This analysis abstracts for instance from any kind of credit risks, capital controls or taxation on investment as any of these elements may break significantly the relationship between interest differentials and exchange rate evolution.

4. **Therefore, the uncovered interest rate condition under a pegged exchange rate and full capital mobility is augmented by a *country risk premium* as per below:**

$$i_t - i_t^* \approx (E_t(s_{t+1}) - s_t)/s_t + \text{country risk premium}$$

where: *Country risk premium* is the market perception of the sovereign credit risk premium and any liquidity premium or term premium depending on the time horizon.

Technical Details on Modeling Country Risk Premium

5. **In a pegged exchange rate regime, the policy rate must be set at a level above the rate of the anchor country that is commensurate with the risk of the country seeking to maintain the peg.** This notion, known as the country risk premium, reflects the compensation required for exposure to sovereign and market-specific risks and is not directly observable. In practice, it is approximated using a range of financial market indicators, such as interest rate spreads, which serve as imperfect and noisy proxies. To obtain a more reliable and forward-looking measure, these proxies can be modeled as functions of underlying macroeconomic and financial fundamentals. The predicted component from such models provides a smoothed estimate of the country risk premium that is less sensitive to transitory market fluctuations and more closely aligned with structural drivers of risk.
6. **To implement this approach, a panel data framework can be adopted to utilize both the cross-sectional and time-series variation in the data.** This is particularly useful in settings where individual country data may be limited or of uneven quality, as pooling information across

countries improves the efficiency of estimation and strengthens the identification of common risk factors. At the same time, the framework allows for sufficient flexibility to capture country-specific characteristics and heterogeneity in risk exposures.

7. The empirical model can be specified as:

$$E(y_{it}) = \alpha_i + \gamma_t + x'_{it}\beta + z'_{it}\delta_i$$

where y_{it} denotes the observed proxy for the country risk premium in country i at time t , α_i represents country-specific effects, and γ_t captures common time effects. The vectors x_{it} and z_{it} correspond to explanatory variables, with x_{it} associated with pooled coefficients β that are common across countries, and z_{it} associated with country-specific coefficients δ_i that allow for heterogeneity in responses to certain variables. This hybrid specification enables the model to combine efficiency gains from pooling information with flexibility to account for differences in country sensitivities, for example to global commodity prices or financial conditions.

- 8. An important modeling consideration concerns the treatment of the country-specific effects α_i , which can be specified as either fixed or random.** In a fixed effects specification, these effects are treated as unknown parameters to be estimated for each country, while in a random effects specification they are assumed to be random deviations from a common mean, such that $\alpha_i = \alpha_0 + u_i$, where u_i is a zero-mean random variable. Empirical testing using the Hausman test indicates that the random effects specification is preferred in this context. In addition, the random effects model offers advantages for inference and prediction, particularly by enabling out-of-sample predictions for countries not included in the estimation sample. In such cases, the country-specific effect can be approximated by the common component α_0 , which is especially useful in policy applications where the objective is to assess country risk across a broad set of economies, including those with limited data availability.
- 9. Table A6.1 presents the detailed variable definitions, model specification, and corresponding estimated coefficients used in this analysis.**

Table A2.1. Country Risk Premium Estimation Framework and Results

Dependent Variables ($y_{it} = \log(EMBI_{it} + \mathbb{E}(\Delta_{exchg_{it}}))$)		
Model Component	Definition	Description
$EMBI_{it}$	JP Morgan Emerging Market Bond Index (EMBI)	Sovereign bond yield spread over U.S. Treasury yields (USD-denominated)
$\mathbb{E}(\Delta_{exchg_{it}})$	Expected exchange rate change	Derived from the consensus forecast exchange rate relative to the spot exchange rate
Right-Hand-Side Variables		
Model Component	Estimated Coefficients	Notes
Country-specific Effects (α_i)	4.709	As Vanuatu is not included in the estimation sample, the country-specific effect is approximated using the sample mean of the estimated country fixed effects.
Time effects (γ_t)	-0.374	March 2016 value reported; a separate time effect is estimated for each month.
Explanatory Variables (x_{it}) with pooled coefficients (β)		
Inflation	0.002	
Debt to GDP ratio	0.008	
VIX	0.018	
Explanatory Variables (z_{it}) with country-specific coefficients (δ_i)		
crude oil price	0.003	As Vanuatu is outside the estimation sample, the country-specific coefficient is approximated using the sample mean of the estimated country-specific oil price coefficients.

Source: IMF staff calculations.

Annex III. Excess Reserves Money Balances and Commercial Bank Lending

1. The February 2026 decision by the MPC to reduce OMO frequency from weekly, to three times a month was reportedly motivated by a belief that banks could lend excess reserves to their customers rather than leaving them on account at the RBV. However, banks cannot use excess reserve balances in this way.
2. Banks can use their balances at the RBV to make transfers to other entities that hold accounts at the RBV, for example to other banks or to the Government (e.g. effecting tax payments on behalf of customers, or buying government securities). In these cases, the RBV's balance sheet total does not change, although the composition of its liabilities is altered.
3. Reserve balances can also be used to buy assets from the RBV (FX or RBV notes), in which case the RBV's balance sheet shrinks. Commercial banks' excess reserve balances fall only to the extent they make payments to the Government or the RBV itself, or their SRD rises because of an increase in their deposit base.
4. Commercial banks cannot transfer central bank reserve balances to their customers, because their customers do not hold central bank accounts. A bank's voluntary demand for operational reserve balances may increase in line with its business volumes, and if its deposit base increases. But in Vanuatu the availability of reserve balances does not constrain banks' ability to lend to customers. The banking system has more than sufficient reserve balances to meet operational needs, and cannot in any case lend reserve balance funds to customers.
5. Reserve balances are not distributed evenly across banks in Vanuatu. But the banks with lower reserve balances all participate in RBV note auctions, and one also holds a portfolio of government securities. If these banks needed additional reserve funds for operational purposes or to meet SRD, they could run down their holdings of RBV notes or use their securities as collateral to borrow from the RBV.

Figure A3.1

CENTRAL BANK									
ASSETS				LIABILITIES					
FX		80		CIC		20			
				Govt		15			
				Bank A		20			
				Bank B		3			
				Bank C		2			
BANK A									
ASSETS				LIABILITIES					
RBV		20							
FX		5							
Loans				Deposits					
BANK B									
ASSETS				LIABILITIES					
RBV					3				
FX					5				
Loans				Deposits					
BANK C									
ASSETS				LIABILITIES					
RBV					2				
FX					5				
Loans				Deposits					

6. Figure A2.1 presents a simplified balance sheet data for the central bank and three commercial banks to illustrate how bank credit operations and interbank transfers impact the banks' ESA accounts at the RBV. The RBV's liabilities to banks shown here are excess reserves; SRD balances are not included.
7. Assume that Bank A makes a loan of 5 to a Customer M. The loan is an asset for the bank, and the counterpart liability is the credit to the customer's account at the bank, as in Figure A2.2. Bank A's balance sheet has expanded. The small change in its excess reserve balance held with the RBV reflects the increase in its SRD on account of the higher level of deposits.

Figure A3.2

CENTRAL BANK			
ASSETS		LIABILITIES	
FX	80	CIC	20
		Govt	15
		Bank A	19.7
		Bank B	3
		Bank C	2
		SRD total	0.3

BANK B			
ASSETS		LIABILITIES	
RBV	3		
FX	5		
Loans		Deposits	

BANK A			
ASSETS		LIABILITIES	
RBV: excess reserves	19.7		
SRD	0.3		
FX	5	Deposit: M	5
Loans	5	Deposit: N	0

BANK C			
ASSETS		LIABILITIES	
RBV	2		
FX	5		
Loans		Deposits	

8. If Customer M uses the funds to pay a supplier, Customer N, that also holds its account at Bank A, there is no change to aggregate deposits held at Bank A (Figure A2.3). There is also no change in Bank A's reserve balance at the RBV, and no change in SRD requirements.

Figure A3.3

BANK A			
ASSETS		LIABILITIES	
RBV: excess reserves	19.7		
SRD	0.3		
FX	5	Deposit: M	0
Loans	5	Deposit: N	5

9. Then assume that Customer N uses the funds to make a payment to a customer of Bank B. Bank A's deposits fall while those of Bank B increase, and the two banks settle the payment across their ESA accounts at the RBV. Bank A's reserves balance (SRD and excess reserves) at the RBV therefore falls by 5, which is transferred to Bank B, and it is now Bank B who needs to increase its SRD. Overall, there is no change in the level of reserve balances held at the RBV.

Figure A3.4

CENTRAL BANK							
ASSETS		LIABILITIES					
FX	80	CIC	20				
		Govt	15				
		Bank A	15.0				
		Bank B	7.7				
		Bank C	2				
		SRD total	0.3				
BANK A				BANK B			
ASSETS		LIABILITIES		ASSETS		LIABILITIES	
RBV: excess reserves	15.0			RBV: excess i	7.7		
SRD	0.0			SRD	0.3		
FX		5 Deposit: M	0	FX	5		
Loans		5 Deposit: N	0	Loans		Deposits	5
BANK C							
ASSETS		LIABILITIES					
RBV							
FX				FX	5		
Loans				Loans		Deposits	

10. In practice, there will be a number of transactions between customers of different banks each day. The change in a bank's ESA balance at the RBV will reflect the net payments to or receipts from other banks, which may be only a small fraction of the gross transfers made.

Annex IV. Description of the Monetary Policy Implementation Framework in Vanuatu

Overview

The Reserve Bank of Vanuatu (RBV) formulates and implements monetary policy in Vanuatu with the primary objective of achieving and maintaining price stability. The secondary objective is to contribute to financial system stability, and third to support broader economic policies.

The RBV's exchange rate arrangement is aimed at maintaining a stable nominal exchange rate of the Vatu. The RBV operates a pegged exchange rate arrangement in which the nominal rate of the Vatu is pegged to a basket of currencies of Vanuatu's main trading partners; the currency basket is undisclosed.

Preserving the value of the Vatu is achieved by maintaining domestic inflation low and stable, and keeping a sufficient level of international reserves. The MPIF supports monetary stability by means of measurable targets:

- The desired rate of inflation is within a range between zero and four percent.
- The minimum targeted level of foreign exchange reserves is equivalent to four months' imports of goods and services.

The latest data for both inflation and the level of foreign exchange reserves are published on the RBV website.

Monetary Policy Implementation Framework (MPIF)

The RBV has the following monetary policy instruments at its disposal:

- Statutory Reserve Deposits,
- RBV Notes
- Transactions to buy or sell US dollars against Vatu.
- RBV Credits

Statutory Reserve Deposits (SRD)

The RBV requires commercial banks to maintain a certain level of SRD at the RBV (RBV Act 57(1)). The SRD is applied to all Vatu demand, time and savings deposits plus 50 percent of foreign currency demand deposits.

The current SRD ratio is 5.5 percent.

The SRD must be met by daily minimum balances in a commercial bank's Exchange Settlement Account (ESA) at the RBV (RBV Act 57(4)).

SRD balances are not remunerated. RBV Act 57(5) permits but does not mandate remuneration of SRD balances.

Open Market Operations (OMO)

1. RBV Notes

The Reserve Bank issues RBV Notes to absorb liquidity. Auctions of RBV Notes are held on Wednesdays.

RBV Notes are currently auctioned with maturities of 7-days, 14-days, 28-days, 63-days and 91 days.

Amounts of each maturity to be offered are specified in tender notices issued in advance of each auction. The RBV reserves the right to vary allocation between different maturities in light of the bids received, subject to the announced total nominal value of Notes to be sold.

Results of the auctions are published on the RBV website.

Settlement is T+0.

2. Foreign exchange transactions

The RBV calculates the value of the Vatu each day, against a basket of currencies, and publishes bilateral exchange rates against a range of currencies on its website.

The RBV stands ready to sell US dollars once a week, on Thursdays, at a spread of 3 Vatu above the mid-rate quoted for the US dollar. It also stands ready to buy US dollars and Australian dollars, at a spread of 3 Vatu below the corresponding mid-rates.

Foreign exchange transactions are settled T+2.

Standing Credit Facilities

1. Intraday Credit

The RBV provides, on demand, intraday credit to commercial banks against eligible collateral in order to facilitate payments in the National Payment System (NPS).

Intraday credit carries a zero interest rate. Any intraday credit that is not repaid by close of business in the NPS is automatically converted into an overnight credit.

Intraday credit is available to the RBV's authorized counterparties during the operating hours of the NPS.

2. Overnight Credit

The RBV provides, on demand, overnight credit to commercial banks against eligible collateral. Overnight credit carries an interest rate equal to the RBV Policy Rate plus a margin of 250 basis points.

Overnight Credit may be requested by the RBV's authorized counterparties from the opening of the NPS until 2:30p.m. each business day.

3. Lender of Last Resort (LOLR)

The RBV may provide temporary liquidity in its capacity of "lender of last resort". The Bank offers the Rediscount and Repurchase Agreement facilities for banks.

Rediscount Facility: banks can sell (rediscount) Treasury Bills and/or RBV notes with up to 91 days maturity to RBV.

Repurchase agreement: a bank sells Government bonds and/or RBV notes to the RBV and subsequently buys back the securities at a specified future date and price.

The interest rate applied to borrowing under the Rediscount and Repurchase Facilities is the RBV's Policy Rate plus a margin of 250 basis points.

Lender of Last Resort credit may be provided for a maximum of 180 days, rolled over a maximum one time. Banks requiring Lender of Last Resort credit will be subject to enhanced supervisory oversight.

4. There is currently no deposit facility available.

Interest Rates

The Policy Rate is RBV's 'official' interest rate. It is set by the Monetary Policy Committee of the RBV, which meets four times a year (March, June, September and December), subject to approval by the RBV Board.

Eligible Collateral

The RBV publishes a list of eligible collateral for use in credit operations with the RBV. Currently, eligible collateral includes:

RBV notes of any maturity

Government of Vanuatu securities, including Treasury Bills, of any maturity.

Collateral is valued at current market valuations, and subject to a haircut. The schedule of haircuts is published by the RBV.

Counterparties

Commercial banks authorized to operate in Vanuatu operate an ESA (a current account) with the RBV, and are eligible to participate in the RBV's OMO and to access Standing Facilities.

The list of authorized commercial banks is published on the RBV website.

Payment System

The RBV operates a Real Time Gross Settlement payment system (the National Payment System). The NPS operates from 9:00 a.m. to 4:00 p.m. every business day.

Annex V. Reserves Averaging

This annex summarizes the main concepts and operational considerations on reserve averaging presented in IMF Technical Assistance Handbook on Reserve Requirements ([reserverequirements.pdf](#)).

1. Description

Reserve averaging is a reserve requirement fulfilment mechanism under which institutions satisfy reserve requirements on average over a reserve maintenance period, rather than on each individual day.

The mechanism supports stable short-term money market conditions by allowing banks to absorb temporary liquidity shocks using reserve balances instead of immediately resorting to the interbank market or central bank facilities. When appropriately designed, reserve averaging increases the elasticity of reserve demand around the policy rate, dampens short-term interest rate volatility, and improves liquidity management.

Let

- RR = required reserve balance
- R_t = reserve balance held on day t
- N = number of days in the maintenance period

Compliance requires

$$\frac{1}{N} \sum_{t=1}^N R_t \geq RR$$

rather than

$$R_t \geq RR$$

for every day.

Consequently, reserve balances may fluctuate from day to day, provided that their average over the maintenance period satisfies the requirement. Banks therefore optimize reserve holdings over the maintenance period rather than on a daily basis.

2. How Averaging Supports Monetary Policy Implementation

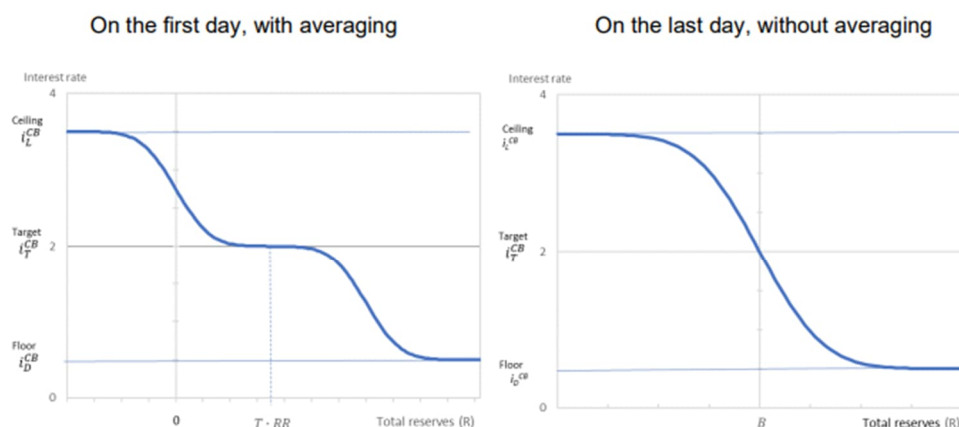
Reserve averaging changes the shape of banks' demand for reserves (Figure A3.1). It flattens the reserve demand curve, reducing the sensitivity of overnight interest rates to temporary liquidity shocks. As the end of the maintenance period approaches, the demand curve gradually steepens because opportunities to offset reserve imbalances diminish. Consequently, longer maintenance periods enhance the stabilizing effects of reserve averaging.

With averaging:

- temporary reserve shortages can be offset later in the maintenance period;
- temporary reserve surpluses can be drawn down subsequently;
- banks have less incentive to hold precautionary excess reserves; and
- overnight money market rates become less volatile.

Reserve averaging does not eliminate the need for liquidity forecasting or open market operations. Rather, it reduces the impact of temporary forecasting errors, as banks can smooth reserve holdings over the maintenance period. Persistent liquidity imbalances, however, cannot be absorbed through averaging and require central bank operations.

Figure A4.1 Demand for Reserves with and without Averaging



Note: T is the number of days in the RMP, RR is the reserves required to be held on average during the RMP, and B is the unfulfilled reserve requirement on the last day of the RMP. $B=RR$ without reserve averaging.

Source: IMF Technical Assistance Handbook on Reserve Requirements

Reserve averaging is most effective when supported by complementary elements of the monetary operations framework, including:

- reliable liquidity forecasting;
- active money markets that permit reserve redistribution among participants;
- standing facilities that bound short-term interest rates;
- predictable open market operations;
- reserve balances held in accounts at the central bank;
- a clearly specified reserve maintenance calendar and reserve computation period.

Absent these conditions, banks may continue to maintain precautionary excess reserves, reducing the stabilizing effect of averaging.

Reserve averaging is an operational feature rather than a monetary policy instrument. It does not alter the structural liquidity position of the banking system or the monetary policy stance. Instead, it improves the efficiency of monetary policy implementation by reducing unnecessary volatility in reserve demand and supporting smoother money market functioning. Where reserve requirements primarily serve monetary policy purposes, reserve averaging is generally preferable to daily fulfilment because it lowers liquidity management costs while preserving compliance with reserve requirements.

Annex VI. Key Features of a Liquidity Monitoring and Forecasting Framework

Objectives of Liquidity Forecasting

The main purpose of producing short-term liquidity forecasts is to generate information which allows the central bank to smooth changes in liquidity conditions. The purpose of smoothing fluctuations in liquidity demand and supply is to create stable liquidity conditions and steer the central bank's operating target. These are conditions to effectively conduct monetary policy, since they help market participants to distinguish between changes in the monetary policy stance and temporary "noises." Clear signaling reduces market participants' uncertainties about the central bank's policy intentions, thereby contributing to efficient monetary policy transmission. Stable liquidity conditions facilitate also banks' liquidity management: by moderating volatility and uncertainty, liquidity management costs are reduced and settlement risks limited.

Liquidity forecasting is the process of centralizing all relevant information that determines the future stance of liquidity without central bank activities. Upon these projections, central banks decide on how much liquidity they should add or withdraw from the system. It is, therefore, a process that precedes the implementation of liquidity management. It is important to note that central banks will want to conduct liquidity forecasts no matter whether their operating target is an interest rate or a quantity (monetary base or bank reserves) target. The liquidity forecasting process is the same in both cases, but the use of the information (how a central bank utilizes its policy instruments) differs.

In general, the way in which a central bank adjusts its policy position to disequilibria depends on the underlying operating target, which can be a quantity target (reserve money or bank reserves) or an interest rate target. In addition, the time horizon of the operating target needs to be considered. A central bank can, for example, target the overnight rate or reserve money on a daily basis or aim at a certain weekly or monthly path and allow for daily deviations from the target path.

- If the central bank targets the overnight interest rate, it nevertheless still uses the projected daily excess supply or demand reserves to define the amount of liquidity to withdraw or inject daily. The relationship is less strict if the central bank steers the overnight interest rate within a corridor or has reserve requirements with averaging provisions in place. Then, the central bank only has to react to cumulated disequilibria over the entire maintenance period, since the system of reserve requirements works as a stabilizer. In contrast, if the central bank operates without reserve requirements, or without reserve averaging, it may then need to manage liquidity conditions more on a day-to-day basis.
- In the case of quantitative (reserve money or bank reserves) operating targets, the central bank adjusts the supply of bank reserves so that it confirms with the target level. For all remaining excess demand or supply, the central bank would allow the interbank money market rate to adjust. However, if the demand for bank reserves is interest inelastic, as might be the case at the end of the reserve period, the central bank would have to accommodate the demand to avoid disturbances within the financial system even if this leads to short-term deviations from the quantitative operating target.

Liquidity Forecasting and Monetary Policy Instruments

Central banks that conduct monetary policy through direct monetary policy instruments have no immediate need for liquidity forecasts. Without market forces at play, a central bank exerts direct control over the liquidity situation by controlling interest rates, directing credit, or setting bank-to-bank

credit ceilings. When moving from direct to market-based indirect monetary policy instruments, it is crucial to develop a thorough liquidity forecasting framework, including its institutional and organizational setup.

Certain indirect monetary policy instruments can contribute to reducing fluctuations in liquidity conditions. Reserve requirements with averaging provisions and standing facilities can limit interest rate volatility. Reserve averaging acts as a buffer to changing liquidity conditions by allowing banks to over- and under fulfill reserve requirements during the maintenance period. The interest rate elasticity of demand for reserves tends to be higher in systems with reserve averaging, thereby reducing the degree of fluctuations in money market rates from liquidity supply shocks.

In the context of an interest rate corridor (IRC), standing facilities set an upper and lower boundary for interbank money market rates with the same maturity. A narrow IRC limits market volatility fluctuations, but has several disadvantages: (i) liquidity is injected or absorbed at the initiative of banks rather than the central bank; (ii) interbank activity is discouraged, with negative consequences for market deepening; and (iii) the central bank's ability to extract information on liquidity conditions and banks' expectations from the money market is reduced. Most interest rate targeting central banks therefore conduct their main operations through a policy instrument which is at their initiative; they aim at an IRC that is wide enough to encourage interbank transactions. Liquidity forecasting then serves to consolidate information on the expected liquidity conditions and to avoid unwarranted excessive volatility.

Liquidity Forecasting and the Payment System

Another factor relevant to the central bank's liquidity forecasting and liquidity management process is the payment system, the features of which affect the demand and the effective supply of bank reserves. If the payment system is undeveloped and inefficient, the banking system typically holds large, often highly volatile amounts of excess reserves. Moreover, in some cases an inefficient payment system goes along with large and unstable reserve floats. Both deficiencies complicate liquidity forecasting, can weaken the central bank's control on the liquidity supply, and hence hamper monetary management. The quality of liquidity forecasts will increase with the efficiency of the payment system.

Determinants of Liquidity

The liquidity forecasting exercise involves an analysis of the projected changes in the main items of the central bank's balance sheet. The main components of banks' demand for liquidity and the autonomous supply of liquidity (i.e., all supply factors that are in the short run beyond the control of the central bank) can be derived from the central bank balance sheet. Based on the projected gap between the liquidity demand and autonomous supply the central bank can decide on the level of liquidity to be added to or withdrawn from the market. The autonomous factors of liquidity supply comprise: (i) net foreign assets; (ii) net position of the government with the central bank; (iii) currency in circulation; and (iv) other items net. Liquidity demand consists of demand for required and excess reserves. To forecast the demand and autonomous supply of liquidity, one has to identify their determinants and decide on the appropriate forecasting techniques.

Very often the net position of the government with the central bank accounts for the most significant changes in the autonomous liquidity supply. To ensure a high degree of overall forecast accuracy, it is therefore crucial that the government cooperates closely with the central bank in providing on a timely basis all information available on government transactions that affect the liquidity supply (i.e., cash flow projections on revenues, expenditures and funding instruments). In countries with heavily managed exchange rates and large and volatile capital flows, significant changes in liquidity supply can also result from changes in net foreign assets. In the very short run, however, variations in net foreign assets are normally known with certainty, since settlements of foreign exchange typically lag transactions

by two days. Currency projections can under certain circumstances also underlie large uncertainties -for example, after a period of high inflation.

Liquidity Monitoring and Forecasting Framework

A clear and efficient organization of the liquidity forecasting process is essential to produce accurate and timely projections. Liquidity forecasts should be arranged as a rolling process under which every new piece of information is promptly incorporated. A useful way to organize the process is to assign the forecasting responsibility to a dedicated unit in the monetary operations department to ensure a close link between liquidity forecasting and liquidity management. The unit should be responsible for: (i) communicating with the different information sources and ensuring the timely receipt of the data; (ii) supervising the consistency of the forecasted components; (iii) producing an overall liquidity projection which is regularly (daily) updated; and (iv) assessing forecasting errors.

Liquidity forecasting horizons and forecasting intervals differ with institutional setups. In systems with reserve requirements, the forecasting horizon should comprise at least the current maintenance period; in systems without reserve requirements the horizon should comprise at least the time period between two discretionary monetary interventions. Optimally, liquidity forecasts should be at daily intervals. If data is not available at this frequency, the central bank might initially start producing forecasts at weekly intervals.

Annex VII. Information-Sharing Provisions to Be Included in the MoU

This annex sets out the information-sharing provisions that should underpin the Memorandum of Understanding (MoU) between the RBV and the Ministry of Finance (MoF) for the purposes of liquidity monitoring and forecasting. Institutional arrangements for liquidity forecasting should allow the MoU to establish durable commitments while retaining flexibility to update operational arrangements as liquidity management practices evolve. For further details see the IMF Liquidity Forecasting TA Handbook, Part I: [Liquidity Forecasting—Part I: The Institutional Arrangements](#)

Provisions to be included in the main body of the MoU

The main body of the MoU should establish the principles and obligations governing information sharing, including:

Provision	Content
Objective of information sharing	A statement that the purpose of information sharing is to support the RBV's liquidity monitoring and forecasting functions, with a view to reducing uncertainty in liquidity conditions and supporting effective monetary policy implementation.
Scope of information exchange	A commitment by the MoF to provide the RBV bank with timely and reliable information on government transactions and cash-flow developments that may affect liquidity conditions, irrespective of whether government balances are held at the central bank or at commercial banks.
Timeliness and materiality	An obligation to share information within agreed timelines and to notify the RBV in advance of large or atypical transactions, with materiality thresholds defined in operational annexes.
Confidentiality and use of information	Provisions specifying that shared information will be used exclusively for liquidity monitoring, forecasting, and related policy purposes, and handled in accordance with applicable confidentiality requirements.
Governance and review	A commitment to periodically review the effectiveness of information-sharing arrangements and update them as needed, reflecting changes in institutional or market conditions.

Provisions to be included in technical annex to the MoU

Operational details should be set out in a technical annex to the MoU, which can be updated without renegotiating the core agreement. These annexes should include:

Information to be provided by the Ministry of Finance

- **Short-term cash-flow projections:** Aggregated forecasts of government inflows and outflows over short horizons (e.g., one week and one month), with indicative breakdowns by major categories where feasible.
- **Debt-related cash flows:** Schedules of government securities issuance and redemptions, including expected settlement dates and amounts, and notification of deviations from announced plans.
- **Large or atypical transactions:** Advance notification of one-off or irregular transactions with potentially material liquidity impact, with predefined notification thresholds.
- **Government account balances:** Information on balances held at the RBV and aggregated information on balances held at commercial banks for liquidity monitoring purposes.
- **Foreign-currency-related transactions:** Expected FX inflows and outflows requiring conversion into domestic currency, including timing and settlement arrangements.

Information to be provided by the Central Bank to the Ministry of Finance

To support effective government cash management and improve the accuracy of cash-flow projections, the central bank should provide the Ministry of Finance with regular, aggregate feedback on liquidity conditions. This information should include:

- High-level assessments of system-wide liquidity conditions
- Identification of periods where government transactions materially affect liquidity volatility.
- Periodic feedback on differences between projected and realized liquidity outcomes related to government flows.
- Identification of recurrent timing or forecasting issues.
- Information on market conditions relevant for cash management

Frequency and timing of information exchange

- **Daily:** executed large transactions and end-of-day balances at the central bank.
- **Weekly:** updated short-term cash-flow projections and debt schedules.
- **Ad hoc:** immediate notification of material deviations from previously shared information.
- Clear cut-off times for data submission should be specified.

Format, transmission, and focal points

- Standardized templates for cash-flow and debt information.

- Secure electronic transmission channels.
- Designated focal points in both institutions responsible for data provision, validation, and follow-up.

Coordination and Feedback Mechanisms

The MoU should provide for a standing coordination mechanism, such as a Cash Coordination Committee (CCC), whose mandate and operating procedures should be defined in an annex. The CCC should serve as a forum to:

- review recent liquidity developments
- discuss forecast deviations
- update cash-flow projections
- assess implications for liquidity conditions and government cash management.

The annex should also specify feedback from the central bank to the MoF, including aggregate assessments of liquidity conditions and ex post analysis of forecast deviations, to support continuous improvement in cash-flow forecasting.