

The Experience of Mauritius with the Lombard Rate: An Overview

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Effective indirect monetary management requires a deep and efficient money market. We moved to indirect monetary management without this advantage. Despite market-oriented reforms initiated over more than a decade, the short-term money and Treasury bill markets are relatively underdeveloped. Learning-by-doing-and-experimenting has been our way forward.

To really appreciate our experiences with the Lombard Rate, a perspective is useful. It's proper that I should give you a background of the reforms initiated by the Bank of Mauritius, and how monetary policy is implemented. I shall then explain briefly the shortcomings of the monetary management framework prior to the introduction of the Lombard Facility in December 1999, and thereafter focus on our experiences with the Lombard Rate.

A Brief Review of the Old Framework

Prior to December 1999, the Bank of Mauritius had already formally moved to indirect monetary management and implemented a series of reforms with a view to developing the short-term money, foreign exchange, and Treasury bill markets.

- (i) Interest rates had been fully liberalised in July 1988, and banks were free to set their deposit and lending rates.
- (ii) Treasury Bills had ceased to be issued on tap and were auctioned every week.
- (iii) Credit controls had been completely phased out in 1993.
- (iv) A secondary market cell had been set up at the Bank of Mauritius in 1994 with a view to induce secondary trading in treasury bills.
- (v) Exchange control had been suspended in 1994 and an interbank foreign exchange market set up.

¹ The views expressed in this paper are the author's and do not necessarily reflect those of the Bank of Mauritius. Any remaining errors are the author's responsibility.

- (vi) Commercial banks' unlimited automatic access to central bank credit and to the discounting of Treasury/Bank of Mauritius Bills had been discontinued and replaced by an overnight overdraft facility provided by the central bank in a discretionary manner on a case-by-case basis, and at a penalty premium above Bank Rate.
- (vii) A Reserve Money Programme and a Liquidity Forecasting Framework had been established in 1996 to ensure consistency between the operating target and the intermediate target.
- (viii) Bank Rate, which used to be set by the central bank, had been made market-determined and since January 1997 computed as the overall weighted average yield on Treasury Bills auctioned weekly.
- (ix) The non-cash liquid assets ratio had been reduced from 20 per cent to zero per cent with a view to enhancing the efficiency of the Bill market by shifting from a captive to a wider market.
- (x) Sugar export proceeds of the private sector, which used to be solely purchased by the central bank, were released directly to the interbank foreign exchange market.
- (xi) And as a consequence of that, official intervention in the foreign exchange market was confined to smoothing short-term volatility, and the exchange rate allowed to reflect market conditions.

More recent reforms include the setting up of a primary dealership system, the authorisation of non-bank institutions to transact deposit-taking business and the granting of licences to a number of moneychangers and foreign exchange dealers. However, market participants have not been forthcoming in helping to develop the market. The amount and frequency of transactions on the secondary market have been disappointingly low.

With the benefit of hindsight, may be reforms could have been sequenced out differently and probably, the outcome in terms of market efficiency would have been different. But as one participant in a symposium on monetary policy puts it, "We did not have the opportunity for intellectual consideration of the question of sequencing. We responded to what was happening in the market".

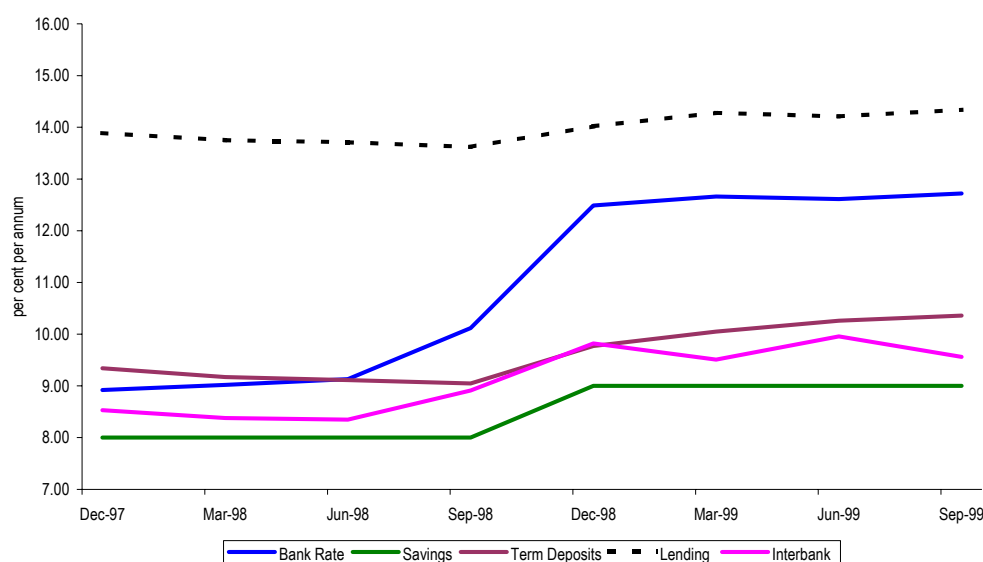
In the absence of an effective money market, the Bank of Mauritius opted for a quantitative framework in the sense that both intermediate and operational targets are quantities. In this framework, the intermediate and operational targets are respectively broad money M2 and reserve money; the choice of targets was dictated by our earlier findings that there was a fairly reliable and predictable relationship between reserve money and M2. The

amount of Treasury Bills to be auctioned on the primary market each week is the main policy instrument tool that the Bank uses to withdraw liquidity from the market. [It must be pointed out here that the Bank had been given informal “instrument independence” and could therefore issue Treasury bills over and above the Government’s financing requirements.] In between weekly auctions, to regulate market liquidity, the Bank would carry out repurchase and reverse repurchase operations. In this model, policy actions undertaken by the central bank lead to changes in the balance sheets of commercial banks and ultimately in broad money and interest rates.

Bank Rate, i.e. the interest rate which commercial banks paid for central bank funds, played a secondary role and was completely determined by the market although by adjusting the auction amount the central bank could technically influence Bank Rate. It was expected that the market would use the Bank Rate as a benchmark for market-interest rate setting.

Textbook economics tells us that if the Bank decides to tighten monetary policy, it would need to drain liquidity by issuing a higher amount of Treasury bills than investors’ desired holdings. Treasury bill prices would fall yields would go up causing the Bank Rate to rise and eventually the whole spectrum of market interest rates. But market practice is a far cry from textbook approaches and things did not happen the way we had expected.

Chart 1: Principal Interest Rates Pre-Lombard Rate



The overnight interbank market rate as well commercial banks’ interest rates remained relatively sticky despite the rapid increase in the Bank Rate as shown in Chart 1. The Bank of Mauritius had to use moral suasion for

commercial banks to adjust their interest rates as they failed to read the policy signals emanating from the rise in the Bank Rate since July 1998. Commercial banks effected a one-off adjustment to their interest rate structure at the end of November 1998. The spread between Bank Rate and commercial banks' savings and term deposits interest rates continued to widen, while there was little response of commercial banks' lending rates.

The rise in the Bank Rate initiated by the central bank by deliberately increasing the supply amount of Treasury Bills on auction was a response to a confidence crisis in the foreign exchange market in 1998, in the wake of the Asian Crisis. The confidence crisis had given rise to a rapid and excessive depreciation of the domestic currency, which threatened the relative stability of the economy and to amplify inflationary pressures. Capital was flowing out and central bank reserves were at risk. The crisis had created a situation where even exporters were complaining about the rapid pace of the depreciation. It was just getting out of control. In these circumstances, intervention never works and the only defence a central bank has is to squeeze liquidity out of the market and raise interest rates.

But the facilities in place were not conducive to quick and sharp adjustments in interest rates and the Bank's response to the crisis got delayed. It took quite a number of weekly auctions and repeated verbal interventions for the Bank to convince the market that week-to-week increases in the Bank Rate signalled a marked change in the monetary policy stance designed to check the rapid exchange rate depreciation and reverse entrenched expectations of further depreciation. It was our inability to cope with the confidence crisis that led us to rethink about our monetary management framework.

The monetary management framework was flawed mainly because there was no active policy instrument through which to signal the Bank's monetary policy stance to market participants. The latter had difficulty to interpret the central bank's signals essentially because there was no mechanism to distinguish between policy-induced movements in the Bank Rate and movements due to temporary liquidity surpluses. Week-to-week fluctuations did not always reflect economic or monetary conditions. Seasonal factors, errors in projecting the supply of liquidity, and errors by market participants in the bidding process itself could also cause fluctuations in the Treasury Bills' yields and therefore, in the Bank Rate. Market participants were left to draw their own conclusions and were often confused by the volatility in the Bank Rate.

It was not surprising that commercial banks were reluctant to adjust their term structure of interest rates. Furthermore, in the absence of an active secondary market for bills, there was hardly any “reality check” on the Treasury bill rates, particularly in between weekly auctions. Using the Bank Rate to price central bank advances had little policy meaning. Week-to-week rates were definitely not a good indicator of the Bank’s policy intentions with respect to domestic rates.

I think we also underestimated the potential market disruptions arising from a sudden adverse shift in exchange rate expectations and the resulting capital outflows. As a small highly open developing economy with no capital controls, exchange rate and exchange rate expectations matter a lot and with a floating exchange rate, interest rates take on more importance than a monetary aggregate. What was required was an effective framework that could defuse crisis situations arising from sudden changes in market sentiment. This was broadly the picture prior to December 1999.

Introduction of the Lombard Facility

An overnight interest rate is generally used by central banks to signal changes in the policy stance, while management of liquidity conditions in the market is taken care of by a short-term interest rate. A good framework should be flexible enough to accommodate both effective management of liquidity and stability of key interest rates used to signal the monetary policy stance. A range of policy interest rates was therefore more appropriate so that the market could, at all times, be aware and interpret correctly the central bank’s monetary policy stance and its short-term operations designed to smooth out liquidity conditions.

It is in this perspective that in December 1999, the Bank of Mauritius introduced two collateralised and indirect monetary instruments, namely the Lombard Facility and repurchase operations (repos).

The Lombard Facility is a standing facility designed as a lender of last resort for commercial banks to meet unexpected liquidity shortfalls. At the beginning of the financial year, each commercial bank is allocated an annual borrowing quota under the Lombard Facility based on its Tier 1 capital. It has to assign a specified amount of eligible Government securities comprising of either Treasury Bills or other bonds acceptable to the central bank as collateral. The commercial bank can, at its own initiative, draw down part or the full amount of the facility on an overnight basis. Borrowing

in excess of the assigned quotas is exceptional and carries a penal rate set at a level, which does not encourage banks to exceed their quota.

The Lombard Rate, the interest rate which commercial banks pay for using the Lombard Facility, is the key interest rate signalling the central bank's monetary policy stance. It is known to all market participants and carries a premium over the overnight interbank market rate. The premium ensures that commercial banks only have recourse to this window as a last resort.

Repurchase and reverse repurchase operations are the main instruments that the Bank uses to regulate short-term liquidity in between weekly primary auctions. Repurchase and Reverse Repurchase are operated at the central bank's own initiative. Whenever the Bank of Mauritius wants to carry a repo or a reverse repo, it would announce the amount to commercial banks and request them to submit competitive bids. The repo and reverse repo rates are therefore completely market-determined. The implied repo rate is below the Lombard Rate but above the interbank market rate.

The Lombard and Repurchase facilities are complementary instruments. Together, the two instruments helped to establish an interest rate corridor, with the Lombard Rate acting as a ceiling to short-term money market rates and the reverse repurchase rate as a floor. All other rates fluctuate within this corridor. With these instruments, the Bank of Mauritius can fine-tune short-term liquidity while keeping key interest rates stable. The repo rate is usually the key official rate used by central banks with a developed money market. In our case, infrequent transactions in a thin secondary market for Government securities precluded the use of the repo rate as the signalling rate.

Bank Rate continues to be computed as the overall weighted average yield on short-term Treasury Bills at the weekly primary auctions but has no effective role in the current monetary management framework. Bank Rate is lower than the Lombard Rate.

In a small highly open export-oriented economy like Mauritius, with a narrow production base and free capital movements, exchange rate is one important factor in the Bank's interest rate setting decision. Policy trade-offs between conflicting goals of keeping exports competitive on the world market and dampening the pass-through effects of exchange rate depreciation into consumer price inflation, as well as avoiding potential capital outflows arising from a misaligned interest rate policy are somehow inevitable. In

setting the Lombard Rate, the Bank of Mauritius generally takes a view of domestic economic conditions namely, the inflation outlook in the short to medium term, the nominal and real effective exchange rates, and the interest rate differential with the major international reserve currencies, adjusted for the appreciation or depreciation of the domestic currency exchange rate.

Implementing the New Framework

Implementation of a new framework is never easy. Frequent dialogue and information meetings with the commercial banking community as well as with the private sector are extremely important if the central bank wants to be successful in implementing monetary policy and helping build broad-based market and public support for its policy. Since December 1998, the Bank of Mauritius has been promoting an open dialogue policy through

- An annual meeting with major stakeholders from the Private Sector where the Governor speaks about monetary policy and central bank policy in general.
- A Financial Markets Committee comprising the Heads of Treasury from all commercial banks who regularly meet under the chairmanship of the Bank of Mauritius to discuss market developments and ways to improve existing market practices and policy instruments.
- A Banking Committee, comprising of the Chief Executives of all commercial banks under the chairmanship of the Governor, which acts as a consultative forum on broad monetary and financial sector issues with the overall objective of enhancing the efficient functioning of the banking system.

Right at its inception, the new framework was clearly explained to the commercial banking community, so that market participants understood the rules of operation, and more importantly that they could correctly gauge the signals transmitted by the central bank in its choice of instruments, timing, interest rates, and quantities traded. The key role of the Lombard Rate for policy direction and stability was emphasised upon.

Further, with a view to promoting transparency in the interest rate policy decision whenever a change in the Lombard Rate is effected a press communiqué is released on the day the decision is taken. In time, the information coverage contained in the press communiqué has widened. The

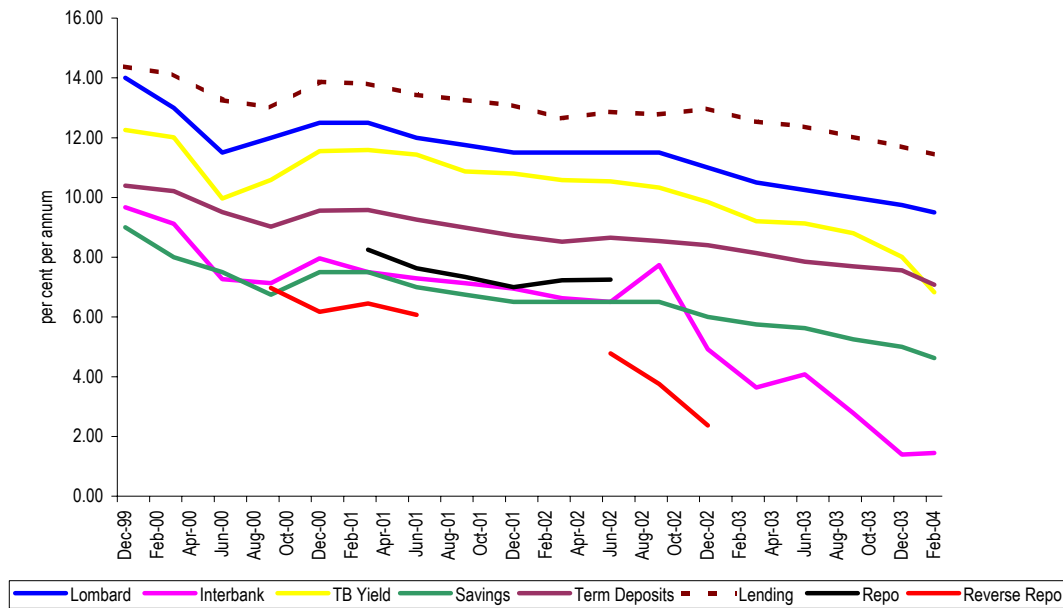
economic and monetary factors that have weighed on the Bank's decision are made known to the market. This has the advantage of helping to guide the market about interest rates and also tie down market expectations.

Experience with the Lombard Rate

The Lombard Rate was initially set at 14.00 per cent per annum, nearly 5 percentage points above the overnight interbank rate. The relatively high rate was in keeping with the Bank's declared policy intention to stabilise exchange rate expectations after the confidence crisis Mauritius experienced in 1998. Since then the Lombard Rate has been on a declining trend except on two occasions where it was raised by 50 basis points.

Chart 2 shows how market interest rates as well as commercial banks' deposit and lending rates have responded to policy changes in the Lombard Rate. An interest rate corridor can be observed with the Lombard Rate as the ceiling and the reverse repo rate (monthly weighted average) as the floor. Interest rate adjustment has been fairly rapid, which contrasts with the market's response in Chart 1. In terms of magnitude, though, the decline in interest rates at the shorter end of the market is sharper than the decline in the Lombard Rate, reflecting looser monetary conditions. This is clear from the behaviour of the repo rate, which is very close to the interbank money rate. It can also be observed that short-term interest rates have started to diverge from the Lombard Rate as from July 2002 while the main market interest rates have continued to track the Lombard Rate, giving an indication about the extent of market segmentation in Mauritius. Commercial banks' savings and term deposit interest rates (for term deposit, rates are weighted averages) closely follow the Lombard Rate with changes roughly proportional to changes in the Lombard Rate. Commercial banks have fairly well adjusted their lending rates, except from December 2002 onwards where the spread between commercial banks' weighted average lending rates and the Lombard Rate tends to widen. This is mainly because commercial banks are generally reluctant to bring down lending rates charged to high-risk customers. The Prime Lending Rate of commercial banks, however, has been coming down in line with the declining Lombard Rate.

Chart 2: Principal Interest Rates post-Lombard Rate



From the Bank’s perspective, the Lombard Rate fulfils the role it was designed to play. Even though commercial banks have had recourse to the Lombard window only infrequently or at the margin, it has been effective as a policy rate used to signal the Bank’s monetary policy stance. The interest rate policy signals have been transmitted throughout the interest rate structure of the domestic banking sector, which constitutes over two-thirds of the domestic financial system. The private sector and the public in general tend to look up to the Lombard Rate for policy direction. Partly as a result of this, the foreign exchange market is now balanced. Exporters have been repatriating their foreign exchange proceeds, exchange rate expectations have stabilised and the Bank does not need to intervene frequently to even out excessive fluctuations.

The co-operation that the banking community as well as the private sector has extended to the central bank can be explained by a number of factors. First, there is long-standing tradition of public-private sector collaboration on issues of national interest in Mauritius. Second, the fact that the central bank had been able to weather the confidence crisis in the foreign exchange market, and give direction to the market at a critical time has contributed to enhance the credibility of the central bank’s policies. And third, commercial banks are financial intermediaries and as such, they are more interested with the spread between the deposit and lending interest rates rather than the level of interest rates. If they believe in the central bank’s policies, they will co-operate.

Conclusion

The lesson that can be drawn from the experience of Mauritius is that there is no ideal monetary management framework that can deal with all the potential problems that a developing economy might possibly be faced with. Often the wisest thing to do is to simply respond to what is happening in the market. Signs that the monetary management framework is once again under strain, due to excessive liquidity in the market, are apparent in Chart 2. Policy instruments and the development of the money market are complementary processes. As the money market develops and new challenges emerge, new instruments have to be introduced to replace existing ones that have become ineffective. For a small highly open developing economy like Mauritius, effective monetary policy management is indeed a formidable task.