

Banco de México's Monetary Policy Operations via the Daily Balances Regime



BANCO^{DE}MEXICO

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1. Introduction

Banco de México has made significant efforts to improve the quality and frequency of the information regarding its main monetary policy actions. The purpose of these efforts is to allow economic agents to base their decisions on more accurate information.

The present note explains how Banco de México operates in the money market and how it implements monetary policy through the daily balances regime. Central bank actions are intended to provide market participants with all the elements to correctly interpret monetary policy actions.

2. Banco de México's operations in the money market

2.1 Banco de México's monetary policy goals

Experience from Mexico and elsewhere confirms that price stability is monetary policy's best contribution to both employment and economic growth. The Mexican Constitution establishes that Banco de México's main purpose is to seek the stability of the Mexican peso's purchasing power.

Central banks, however, are not able to directly control price behavior. In order to achieve their goals, they have to act through the money markets. By participating in the money market they can temporarily affect the behavior of interest rates, which, likewise, can influence aggregate demand, and consequently, the general price level.

In Mexico, the central bank has established an inflation-targeting scheme as part of its effort to achieve the currency's purchasing power stability. The announcement of explicit mid- and long-term inflation targets plays a key role in this scheme. When inflation expectations are not in line with the set goals, Banco de México modifies its monetary policy in order to induce a change in the inflationary process.

Banco de México follows a series of economic indicators to evaluate the inflationary pressures. Among these are:

- (a) inflation forecasts,
- (b) wages and wage settlements,

- (c) prices of goods and services administered and regulated by government,
- (d) external conditions and the exchange rate.

Banco de México must react promptly to any changes in these economic variables as they could lead to higher inflation rates in the future. The central bank needs to react on time to changes in the mentioned indicators and must anticipate possible increases in inflation because there is a lag between the moment in which monetary policy actions are adopted and the moment they impact the general price level.

Banco de México's monetary policy actions influence interest rates through signals sent to the money market. Following is a description of how Banco de México intervenes in the money market and sends its monetary policy signals.

3. Daily balances regime

3.1 Description

Credit institutions have a current account (unique account) at Banco de México. The central bank has established a daily balances regime to handle these accounts, where each bank has an incentive to keep its account at the central bank balanced (at zero) at the end of each day, for two reasons. First, if this balance is negative at the end of the day, the credit institution must pay a rate for the corresponding amount it owes. Second, if the balance is positive, the credit institution loses the profit it would have gained by investing these funds.

The daily balances regime is designed to create adequate incentives so that credit institutions do not keep positive balances or overdraw their accounts. It also seeks for banks to compensate their fund surpluses or shortages at market interest rates. At the end of each day, an interest rate is charged on the accounts with negative balances. This rate is equivalent to twice a representative rate from the money market, because the cost for banks with positive balances is meant to be equivalent to the cost for banks with overdrafts. The cost is the same because institutions with positive daily balances incur an opportunity cost equal to what they would have earned by investing these funds, at a rate equivalent to the market fund rate. Alternatively, banks with negative balances must pay at the end of the period twice the representative market rate. This nullifies any advantage they could attain by investing the funds obtained through overdraft. Therefore, the net cost is, in both cases, approximately one time the market interest rate.

Banco de México balances the supply and demand for money by intervening daily in the money market, thus preventing interest rates from being affected by liquidity shortages or surpluses.

3.2 Monetary policy signals

Banco de México intervenes every day in the money market through auctions and by offering credits, deposits, repos, and purchases or sales of government securities. The amount of these interventions is set by the central bank so that the sum of the current account balances of all banks adds up to an amount predetermined for that day.

The current accounts balance target is used by Banco de México as an indicator of its monetary policy intentions. Banco de México's Board of Governors has established a series of dates on which it announces the targeted amounts for the "total daily balances" (TDB) of the banking current accounts at the end of the day. The balance targets are in force from the time of the announcement date, barring modification by the Board of Governors at a later date. Monetary policy announcements on established dates started in January 2003 based on a schedule publicly released in the Inflation Report of the Third Quarter of 2002.

A negative TDB target signals the central bank's intention to provide the banking system with the desired funds in a way that offers only part of them at market rates. The corresponding negative part of the balance would be provided to one or more credit institutions through current account overdrafts. The fact that the central bank does not provide the total amount of funds at market rates can cause an increase in interest rates, since credit institutions will try to avoid paying the overdraft rate and seek to obtain these funds in the money market even if it implies paying higher interest rates.

A positive TDB target reflects the central bank's intention to provide credit institutions, through money market operations, an amount of funds greater than that required by the system, therefore forcing one or more institutions at the end of the day, to have undesired positive balances in their central bank's current accounts. The latter can prompt a fall in interest rates, as institutions try to avoid keeping

these positive balances even if it implies lending the mentioned funds at lower interest rates.

A TDB target equal to zero would imply the central bank's intention to satisfy the demand for money at market interest rates and, hence, to provide enough resources so that no bank is forced to incur overdrafts or to accumulate undesired positive balances at the end of the period.

For this reason, Banco de México always provides enough credit to fully meet the demand for money, even after adopting a negative TDB target. The difference is that, in the latter case, part of the credit is granted through an overdraft of one or more banks' current accounts.

3.3 Intervention in the money market

Banco de México intervenes in the money market every working day starting at 12:00 p.m. local time. The central bank has previous knowledge of all operations that affect banks' account balances, except for banknote and coin withdrawals and deposits made by credit institutions. This is because the central bank credits the banks' current accounts on the same day they deposit funds received from the public, without notice. Likewise, Banco de México debits their accounts on the same day they make withdrawals corresponding to cash withdrawals made by the public. Banco de México must therefore forecast every day the expected change in the demand for cash, and include this forecast in the total amount corresponding to its interventions in the money market.

The central bank intervenes in the money market via repos, credit or deposit auctions and purchases or sales of government securities. In all of these transactions, Banco de México sets the amount, and the market freely determines the interest rate.

3.4 Pre-settlement market

Every day, at 6:30 p.m. local time, after the banks' accounts reflect clearing results from the settlements of the different payment systems, Banco de México opens its system for one hour so banks can exchange funds with each other. Every day, when this market opens, the central bank intervenes with credit or deposit auctions, in order to compensate for the differences between estimated and observed cash demand. This operation is implemented with the purpose of asserting the target established for the TDB.

4. Determining Banco de México's daily intervention in the money market

Every day, at 12:00 p.m. local time, Banco de México announces its TDB target for that day's close ($TDB_{@t}^{OBJ}$) and publishes the following information:

April 1, 2003

Million pesos		
Balance of banknotes and coins in circulation as of March 31	237,850	
Credit institution current accounts' total balance in pesos as of March 31, 2003	-162	TDB_{t-1}
Expected change in the total balance of these accounts on this date (04-01-03) resulting from previous operations with Banco de México, federal government transactions, and banknote and coin deposits and withdrawals*	-11,023	L_t^E
Expected change in the total balance of these accounts due to Banco de México's intervention in the money market on (04-01-03)*	10,560	I_t
Expected Banco de México intervention in the pre-settlement market*	600	IV_t
The anticipated intervention will be carried out at the beginning of the evening session, adjusting the preliminary amount so that the total balance of credit institutions' current accounts in pesos at the end of 04-01-03 equals	-25	TDB_t^{OBJ}

* A negative sign corresponds to a reduction and a positive sign to an increase in the total balance of the referred accounts.

Intervention in the money market is determined as follows:

$$I_t = TDB_t^{OBJ} - TDB_{t-1} - L_t^E - IV_t$$

Example: Banco de México's intervention (I_t) on April 1, 2003 was calculated by entering TDB_t^{OBJ} , the total balance closing value for the previous date (TDB_{t-1}^{OBJ}), the expected change in banks' current accounts (L_t^E), and the preliminary amount of the intervention in the pre-settlement market (IV_t).

$$I_t = -25 - (-162) - (-11,023) - 600$$

$$I_t = 10,560$$

5. Banco de México's creditor position in the money market

As previously mentioned, Banco de México's monetary policy goal is to achieve the purchasing power stability of the Mexican peso. For that purpose, the central bank has established as its goal to reach an inflation rate similar to Mexico's main trading partners. Given Mexico's inflationary history, Banco de México's efforts to achieve this goal have included, in most cases, the adoption of a restrictive monetary policy.

Under these conditions, Banco de México has judged it advantageous to maintain a short-term creditor position with the money market, where every day the market opens with a liquidity deficit and the central bank compensates the shortages through daily money market operations. Banco de México's experience has shown that monetary policy signals are more effective when operated from a liquidity position such as the one described above.

In order to achieve a short-term creditor position with the money market, in recent years Banco de México has looked to structure its long-term liabilities with financial institutions so that they do not have to be refinanced regularly. These liabilities have been implemented through regulatory deposits, mandatory and voluntary, and also through the placement of securities, using Federal Government Development Bonds (*Bonos de Desarrollo del Gobierno Federal*, BONDES) and Monetary Regulation Bonds (*Bonos de Regulación Monetaria*, BREMS). At the same time, the average term of Banco de México's assets with the financial market has been maintained at very short terms, allowing the refinancing of those obligations to generate a short-term creditor position.