

# Évaluation de la politique monétaire marocaine

# **Evaluation of Moroccan monetary policy**

## **Driss DAOUI**

Professor at the FSJES Ibn University TOFAIL - KENITRA: UNIVERSITY RESEARCH LABORATORY IN FINANCIAL AND ACCOUNTING MANAGEMENT: Faculty of Legal, Economic and Social Sciences; UNIVERSITE IBN TOFAIL KENITRA, Maroc <u>didich\_d@yahoo.fr</u>

## Hamid DAALI

PhD student in economics and management: UNIVERSITY RESEARCH LABORATORY IN MANAGEMENT - FINANCE AND ACCOUNTING: Faculty of Legal, Economic and Social Sciences; IBN TOFAIL KENITRA UNIVERSITY, Morocco <u>h.daali.mfb@gmail.com</u>

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## Résumé

Dans le souci d'améliorer ladite politique ; les autorités marocaines ont entamé un projet de réforme de l'économie depuis 1987. Ce projet vise à faciliter le passage d'une économie d'endettement à une économie de marché. La politique monétaire au Maroc n'a pas échappé de ces réformes visant la libéralisation financière. Ladite libéralisation s'est traduite au Maroc par une refonte du cadre opérationnel de la politique monétaire, aussi bien au niveau des objectifs qu'au niveau des instruments. Les réformes des années 1990 ont visé la mise en place d'une politique monétaire de règle d'inspiration monétariste qui s'est substituée à la politique monétaire discrétionnaire d'inspiration keynésienne. Les autorités ont cherché alors à concilier entre deux objectifs apparemment contradictoires. Le premier consiste à adopter une politique de ciblage d'agrégats monétaire qui accorde au taux le rôle d'un instrument. Le second confère à la banque centrale le rôle d'une banque de dernier ressort qui privilégie la stabilité financière.

L'objet de cet article est de démontrer qu'au Maroc, comme dans les pays en développement en général, la politique monétaire ne peut se résigner à la recherche de la stabilité des prix en matière d'objectif. Au niveau des instruments, elle ne peut se limiter à réguler les liquidités (injection ou retrait de liquidités) de façon passive.

**Mots clés :** efficacité de la politique monétaire ; marché interbancaire ; anticipations rationnelles ; fonction de réaction ; règle de Taylor

## Abstract

In order to improve said policy; the Moroccan authorities have embarked on an economic reform project since 1987. This project aims to facilitate the transition from a debt economy to a market economy. Monetary policy in Morocco has not escaped from these reforms aimed at financial liberalization.

Said liberalization has resulted in Morocco in an overhaul of the operational framework of monetary policy, both in terms of objectives and in terms of instruments. The reforms of the 1990s aimed at the establishment of a monetary policy based on monetarism, which replaced the discretionary monetary policy of Keynesian inspiration. The authorities then sought to reconcile between two apparently contradictory objectives. The first is to adopt a policy of targeting monetary aggregates which gives the rate the role of an instrument. The second confers on the central bank the role of a bank of last resort which favors financial stability.

The purpose of this article is to demonstrate that in Morocco, as in developing countries in general, monetary policy cannot be resigned to the quest for price stability in terms of objectives. In terms of instruments, it cannot be limited to regulating liquidity (injection or withdrawal of liquidity) passively.

**Keywords:** effectiveness of monetary policy; interbank market; rational expectations; reaction function; Taylor rule



## Introduction

Over the past two decades, monetary policy in Morocco has undergone two waves of reforms which are part of the overall framework of financial liberalization. The first wave introduced changes to the operational framework. The second wave concerned the reform of the institutional framework.

The operational framework reforms began at the beginning of the 1990s; they were characterized by the implementation of gradual reforms tending to replace the instruments of direct and selective action by instruments of indirect action. Until the end of the 1980s, monetary policy was a discretionary policy using coercive and selective instruments<sup>1</sup>. The difficulties encountered by central banks in coping with the crisis and the rise of liberal conceptions favored the application of monetary policies with a monetarist-inspired rule. From the beginning of the 1990s, Bank Al-Maghrib implemented a monetary policy having as its final objective: price stability and as an intermediate objective the growth rate of a monetary aggregate.

The reform of the institutional framework is more recent, it finds its theoretical foundations in the framework of research by the New Classic School which will radicalize the monetarist conception. In this sense, and to fight against inflation, it is necessary to anchor agents expectations through the effects of announcements. The credibility of monetary policy, which presupposes transparency and accountability, is now a quality sought by all central banks through various strategies: targeting inflation, independence of the central bank, communication policy for better transparency....It is in this context that the revision of statutes took place in 2005 Bank Al-Maghrib.

The purpose of this article is to demonstrate that in Morocco, as in developing countries in general, monetary policy cannot be resigned to the quest for price stability in terms of objectives. In terms of instruments, it cannot be limited to regulating liquidity (injection or withdrawal of liquidity) passively. The importance of the needs of the populations requires the establishment of priorities. Some remarks therefore raise questions relating to the effectiveness of current monetary policy and to the possible alternative strategies concealed in the framework of this policy. Therefore, the current Moroccan monetary policy is it effective? And that they are the possible alternative strategies to conceal the framework of this policy? And what are the measures to take to make it active?

<sup>&</sup>lt;sup>1</sup> Compulsory employment, interest rate administration, credit management ... the refinancing of banks was carried out through the rediscounting policy.



To understand these questions, we will first present a review of monetary policy in Morocco. Through the second place, we will analyze the limits of this policy and the third part presents alternative measures to implement a more monetary active policy.

### 1. Evolution of monetary policy in Morocco

The objective of any monetary policy is to act on the evolution of the money supply so that the monetary and financial sphere is compatible with the evolution of the real sphere. In Morocco, this function is performed by Bank Al-maghrib (central bank) by intervening in the economy through various instruments aimed at controlling credits to sectors of the economy (credit policy), external assets (exchange policy) and claims on the treasury. Moroccan monetary policy is essentially a credit policy, since the activity of distributing credits constitutes the main source of monetary creation. Thus, there are two main stages in the evolution of monetary policy in Morocco:

## **1.1.** In terms of instruments

Before the 1980s, monetary policy was based on direct credit control instruments in order to control the liquidity of banks and, therefore, limit the ability to grant credits. This control was exercised in particular through three instruments: the supervision of credits making it possible to limit the extension of credits by fixing a maximum rate of expansion during a given period, the compulsory reserves based on the constitution unpaid reserves with the BAM or the orientation of a part of the banking resources towards the financing of particular economic sectors, and the rediscount ensuring a financing of the banks by rediscounting with the BAM the short-term credits which these banks constitute to their customers. Since the start of financial liberalization, Bank Al-Maghrib has made continuous efforts to adapt the operational framework of monetary policy with a view to harmonizing intervention procedures on the money market. To do so, the Moroccan monetary authorities abandoned the previous instruments in favor of a new approach with a decision to open the money market. This new approach is based on an indirect control of the money supply through the influence of the interest rate on the interbank market. Thus, this intervention constitutes a means of regulation and control of the central bank, these results in two new instruments: pension procedures and open market operations. The techniques provided are presented by the following diagram from Bank Al-maghrib.





#### Figure N°1: Bank AL-maghrib interventions on the money market

#### Source: report of Bank Al-maghrib 2006

The interest rate on the interbank market constitutes the operational target of monetary policy in Morocco. Thus, Bank Al-Maghrib can influence the variations of this rate by affecting the supply and demand for liquidity on the interbank market through two types of instruments which constitute, according to the monetary authorities, the operational framework of Moroccan monetary policy. The new instruments are presented as follows:

#### The main operations

Are of two types, the first type called the 7-day advances on invitation to tender making it possible to inject liquidity into the money market in the event of an expected increase in the rate interbank interest, and the second type called 7-day liquidity reversals by tender allowing money to be withdrawn from the money market in the event of an expected decrease in the interbank interest rate.

## Permanent facilities

Allow banks to meet liquidity needs or to invest excess cash. They are also of two types; 24 hour advances and 24 hour deposit facilities in the form of short term credits secured by treasury bonds.



To comply with market mechanisms, 7-day advances as well as 7-day liquidity withdrawals are executed by Bank Al-maghrib by way of tender. Besides these main techniques, Bank Al-Maghrib has two other instruments that can be described as secondary.

## ✤ Fine-tuning operations

These are ad hoc interventions carried out in order to deal with sudden fluctuations in bank liquidity. This involves the temporary or firm sale or acquisition of treasury bills, but also foreign exchange swap transactions. They mainly contain open market operations which allow the monetary authorities to intervene on the money market by buying and selling securities (essentially treasury bills), which makes it possible to influence the supply and demand of the currency and thereafter the interbank interest rate. And foreign exchange swaps are contracts for the sale or purchase of dirhams against currency concluded at a predetermined exchange rate, making it possible to influence the money market through external assets.

#### Mandatory reserves

It constitutes a regulatory measure through which the central bank requires banks to build up a reserve with it according to a percentage of their liabilities. The rate of this reserve cannot be manipulated frequently because of its sudden effect on the resources of the banks.

There also remains an instrument used by monetary policy by requiring banks to keep a proportion of their liabilities in their current accounts.

Effective date	required reserve rate
in 1988	7%
1989	11%
1 October 1990	1220%
December 1990	15%
<sup>1%</sup> August 1991	16
4 October 1991	18%

Tableau N°1 : Required reserve



November 4, 1991	20%
February 3 1992	22.5%
June 19, 1992	24%
16 October 1992	25%
21 October 1992	10%
26 December 2002	14%
4 September 2003	16.5%
1 January 2008	15%
1 <sup>January</sup> 2009	12%
<sup>1</sup> July 2009	10%
<sup>1</sup> October 2009	8%
from <sup>1</sup> April 2010	6%
2012	4%
26 March 2014	2%
at part of the June 21, 2016	2%

## Source: Table prepared from data of Bank Al-Maghrib

At the beginning of financial liberalization and following When credit was disorganized, this technique was widely used. From January 2008, the rate of this reserve was lowered several times to reach the level of 2% from June 21, 2016. These decreases are intended to increase bank liquidity.

In summary, Bank Al-Maghrib seeks to maintain the interbank market rate within a corridor where it must fluctuate. Today (April 2012), the system is "in the bank", the floor of the corridor corresponds to the interest rate on 24-hour deposit facilities (2%) and the ceiling corresponds to the rate of advances at 24 hours (4%).



How does the corridor mechanism work?

A bank with excess liquidity can either place this excess at the interbank market rate if it exceeds the floor rate, if not it can place this sum with the Central Bank at the floor rate. Thus, Bank AL Maghrib pushes the interbank rate upwards, it cannot drop to less than 2%. A Bank in need of liquidity can only borrow on the interbank market at a rate lower than the ceiling rate as long as it can find liquidity from the Central Bank as a 24 hour advance at the rate of 4%.

## **1.2 In terms of objectives**

Until 2006, Bank Al-Maghrib practiced a policy of monetarist inspiration with the final objective: price stability. To achieve this objective, and since the central bank does not have a direct instrument to stabilize prices, it set itself an intermediate objective corresponding to the monetary rule which results in a growth rate of a target aggregate. According to monetarist theory, price stability requires mastery of the creation of money. However, financial innovations have called into question everywhere the status of money aggregates as an intermediate objective. With the appearance of securities that are both liquid, less risky and better remunerated, such as money market securities or units of UCITS, easily convertible into means of payment and without great risk of capital loss, the definition of currency has thus become imprecise and the money supply unstable, since non-financial agents now have the possibility of arbitrating easily between different assets, according to changes in their respective characteristics (liquidity, remuneration, taxation, etc.), without these arbitrations necessarily have to do with a desire to hold more or less means of payment (Akaaboune, 2010).

In fact, it has become difficult for the authorities to monitor the development of money aggregates. For example, if interest rates fall on the bond market, agents who own units of bond UCITS can withdraw their funds and place them in the bank. Money aggregates can therefore increase because of these trade-offs and not because of credits. The rise in the monetary aggregate will not mean that the spending capacity of non-financial agents has increased and that there is a risk of inflation. Faced with these developments, central banks have reacted in different ways (Akaaboune, 2010):

- Some have changed the target aggregate from M3 to M1 deemed more stable;
- Others have broadened the money aggregates to include new monetary assets;



- Still others, in the absence of reliable intermediate objectives, adopt an approach based on a range of indicators allowing them to adapt their instruments. Money aggregates from this perspective become simple indicators among others;
- Finally, some central banks have opted for direct inflation targeting (Canada, New Zealand; United Kingdom; Finland, etc.) by announcing a range of increases in the inflation rate.

Morocco has not escaped the phenomenon of instability of money aggregates. Thus, in 1986, the first negotiable debt securities were launched and in 1996, UCITS were launched, which strengthened the possibilities for arbitrage between bank deposits and liquid investments and made it difficult for aggregates to assess monetary creation. of money. As a result, the monetary authorities have decided to replace the target aggregate. From 1998, it will be the narrow aggregate M1, considered more stable, which will be targeted rather than M3. In 2006, Bank Al-Maghrib will once again return to the M3 aggregate following a strong instability in M1, which is explained by the currency flows generated by privatization operations, tourism receipts and private transfers. The fall in the cost of holding cash generated arbitrations between term investments and sight deposits contained in M1 and increased the instability of this aggregate. In 2006, changes were introduced, one can read in the report of Bank Al-Maghrib for the 2006 financial year on page 79: "After having based, in the past, its analysis system on the monitoring of monetary aggregates by compared to a reference value set at the beginning of the financial year, the Bank has adopted a new approach which allows, through the monitoring of indicators relating, on the one hand to the real sphere and, on the other, to the financial sphere, to identify the various factors of inflationary pressures. These indicators are analyzed from a prospective perspective, resulting in the preparation of forecasts and the establishment of a balance of risks which may affect price stability".

To sum up, we can say that Moroccan monetary policy has as its final objective price stability, an absence intermediate objective, but the use of a set of indicators of the real and monetary spheres. As an operational objective, the level of the interbank market rate that the Central Bank influences by regulating the volume of bank liquidity. Balance on the market is achieved by quantities; the level of key rates is stable. The basic monetary policy is therefore abandoned from 2007 in favor of an interest rate policy.



## 1.3 Results of monetary policy

Let us first note that it is difficult to carry out an evaluation of this policy given that the operational framework is constantly changing and the institutional framework has just been radically revised in 2006. We will nevertheless discuss the results through: the monetary target and the inflation rate; next, the interbank market rate and the key rates.

#### **1.3.1** Monetary objective and price stability

Table 2 below presents the evolution of the monetary objective in Morocco and of achievements and the inflation rate.

Years	Monetary	Realization	Currency gap	Inflation rate	Underlying
	target (O)	( <b>R</b> )	$(\mathbf{R-O}\min)^2$		inflation rate
1994	8.00% to 10.00% (M3)	10.20%	4.20%	5.10%	
1995	5.00% to 7.00% (M3)	7.00%	2.00%	6.10%	
1996	7.00% (M3)	6.60%	- 0.40%	3.00%	
1997	7.00% (M3)	8.10%	1.10%	1.00%	
1998	8.00% (M3)	6.00%	- 2.00%	2.70%	
1999	7.00% to 8.00% (M1)	11.50%	4.50%	0.70%	
2000	6.00% to 7.00% (M1)	8.20%	2.20%	1.90%	
2001	9.00% to 10.00% (M1)	15.90%	6.90%	0.60%	

#### Tableau N°2 : Monetary, achievement and inflation rate

<sup>&</sup>lt;sup>2</sup> The monetary gap is here calculated as the difference between the growth achievement of the target aggregate and the lower limit of the growth for the same aggregate.



2002	6.50% to 7.50%	9.00%	2.50%	2.80%	
	(M1)				
2002	<b>5 5 0 1 0 5 0 1</b>	0.000/	<b>• 1</b> 00/	1.000/	
2003	7.50% to 8.50%	9.60%	2.10%	1.20%	
	(M1)				
2004	6.50% to 7.50%	9.70%	3.20%	1.50%	1.30%
	(M1)				
2005	6.50% to 7.50%	14.80%	8.30%	1.00%	1.60%
	(M1				
2005	<b>7 7 0 1 0 1 0 1 0 1 0 1</b>	15 000/	0.500/	2.2004	2.100/
2006	7.50% to 8.50%	17.00%	9.50%	3.30%	3.10%
	(M3)				
2007		16.00%		2.00%	1.70%
		/ .			
2008		10.8%		3.7%	4.5 %
2009		7%		1.00%	0.7%
2009		7 %0		1.00%	0.7%
2010		4.8%		0.9%	0.4%
2011		4.5%		0.8%	0.3%
2012		4.7%		0.9%	0.5%
					/ -
2016		4.6%		0.8%	0.4%

Source: Table drawn up from data from Bank Al-maghrib

Table 2 shows that the inflation rate has been low since 1996 despite the size of the monetary gap. The link between the monetary gap in year N-1 and inflation in year N is weak. Indeed, the change in the aggregates of money, in the direction of growth, is not necessarily synonymous with monetary creation. There is a weak link between the increase in the money supply and the inflation rate. In Morocco, the level of the inflation rate cannot be attributed exclusively to monetary policy, the compensation fund plays an important role in this direction.



## **1.3.2 Interbank rate and key rates**

Between 2001 and 2007, Morocco experienced a phase of excess liquidity in the money market, which first resulted in the fall in the interbank rate. The banking system was "non-bank". Bank Al-Maghrib set two limits at the market rate: a ceiling consisting of the 24 hour advance rate fixed until 2008 at 4.25% and a floor constituted by the 7 day advance rate of 3.25%. With the persistence of excess liquidity, the market rate hovered around 2%, below the floor rate. No influence of monetary policy was possible, it being understood that the banks financed themselves exclusively on the market at a lower rate than the key rate. This situation pushed Bank Al-Maghrib to revise its strategy; it instituted the techniques of liquidity recovery. It will make the 24-hour deposit facility rate the new floor rate.

Henceforth, the interbank market rate fluctuates within a corridor made up, by the 24 hour deposit facility rate as the floor and the 24 hour advance rate as the ceiling (see Table 3). At this level, we can say that in recent years Bank Al-Maghrib has achieved its operational objective: the overnight rate has been kept within the range between 2.25% and 4.25%. Following the Council meeting of the Monetary Policy of 27 March 2012, it was decided that the rate increases to 3% which means that this range will be from<sup>1</sup>, April 2012 from 2% to 4%.

Years	$TD^3$	<sup>4</sup> TP	TPC <sup>5</sup>	TMI <sup>6</sup>	TMIM <sup>7</sup>
1995	7	12		8	7.7
1996	6.5	12		6.52	6.85
1997	6.5	12		6.74	6.69
1998	6	11.5		6.15	6.57
1999	5.5	10.5 - 12.5	4.5	5.29	4.26

Tableau N°3: Evolution of Bank Al Maghrib rates and the interbank market rate

<sup>&</sup>lt;sup>3</sup> Policy rate in December

<sup>&</sup>lt;sup>4</sup> Corridor ceiling rate 24 hour advances in December

<sup>&</sup>lt;sup>5</sup> Corridor floor rate 24 hour deposit facilities in December

<sup>&</sup>lt;sup>6</sup> Interbank market rate At the end of December

<sup>&</sup>lt;sup>7</sup> Interbank market rate average rate in December



2000	5	10.5 - 12.5	4.5	6.32	5.35
2001	4.75	9.25 - 11.25	4.5- 4.70	2.78	3.23
2002	3.75	8.25 - 10.25	2.5	3.29	2.94
2003	3.25	4.25	2.25	3.04	3.15
2004	3.25	4.25	2.25	2.27	2.32
2005	3.25	4.25	2.25	2.26	2.4
2006	3.25	4.25	2.25	2.77	2.55
2007	3.25	4.25	2.25	3.50	3.52
2008	3.50	4.50	2.50	3.56	3.57
2009	3.25	4.25	2.25	3.50	3.35
2010	3.25	4.25	2.25	3.28	3.27
2011	3.25	4.25	2.25		
2012	3	4	2		

Source: Table based on data from BAM

## 2. Monetary policy limits in Morocco

Le first paragraph presents the limits of intervention techniques on the money market (2.1); the second presents the limits relating to the key rates (2.2); the third concerns the monetary reserve (2.3).

## 2.1 Limits of banking liquidity regulation techniques

We will see the limits relating to liquidity withdrawal techniques (2.1.1) then those relating to liquidity injection techniques (2.1.2).

## 2.1.1 Techniques for withdrawing liquidity

These techniques were developed during the period from 2001 to 2007, the banking system was "non-bank". Interventions by the Central Bank were very limited, the banks could refinance at an interbank market rate lower than the refinancing rate of Bank Al-Maghrib. To



bring its key rate closer to the interbank market rate, the central bank decided to lower its key rate to 3.25% on December 26, 2002, a drop which had no effect. After that, the bank developed the techniques of liquidity withdrawal through which it seeks to regulate bank liquidity by "sterilizing" the surpluses. However, instead of reducing excess liquidity, we believe that this strategy is likely to worsen excess liquidity. "Frozen" cash was only available for 24 hours or 7 days. Bank Al-Maghrib then reimbursed the banks for the funds withdrawn. These funds were therefore reinvested, amplified with interest, we are witnessing a snowball effect (having an expansive effect on bank liquidity). It is largely only thanks to the monetary reserve technique which was reduced between September 4, 2003 and January 1, 2008 to 16.5% that excess liquidity was gradually reduced (see Table 2).

## 2.1.2 Techniques for injecting liquidity

Since February 2007, the system has been "in the bank", the Central Bank mainly proceeds through the technique of 7-day advances. On a secondary basis, it intervenes through currency swaps and 24-hour advances. These procedures were established to allow banks to have a permanent source of refinancing.

We note, however, that this practice of injecting liquidity also suffers from a snowball effect having a restrictive impact on bank liquidity. It accentuates the deficit going in the opposite direction from the previous one. Instead of solving the problem of insufficient bank liquidity, this technique, by requiring the banks to return the amounts advanced (increased by interest after a week or 24 hours), it aggravates the deficit which becomes chronic. Indeed, despite the weekly cash injections, the deficit persists. This persistence is explained in our opinion by the limits and intrinsic characteristics of the strategies used.

Analysis of these techniques raises four remarks:

- They make it possible to maintain the interbank rate within the corridor. For Bank Al-Maghrib this is the objective to be reached; now, in our view, this is a secondary objective in relation to the needs of the economy;
- These techniques do not make it possible to solve the problem of the need or the excess of bank liquidity; they worsen the situation through a snowball effect (in the current case with a restrictive effect on liquidity).



The liquidity requirement (expressed by the amounts requested by the banks), which was 24,170 million dirhams at the start of 2011, rose to 34,750.0 million dirham's at the end of the year.

By these 7-day or 24-hour advance techniques, the Central Bank practices a passive policy of regulating bank liquidity without oversight and without effect on the allocation of its funds by the banks. With these very short-term refinancing methods, banks risk favoring unproductive or even speculative jobs, because the funds are only advanced for 24 hours or 7 days. The last financial crisis has clearly shown that it was uncontrolled banking jobs that were responsible for the risk. In addition, the risk is significant in the current context of opening up of the economy (possibilities of capital flight, or possibly purchases of toxic foreign financial products...).

## 2.2 Limits on the level of intervention rates

Until March 2012, by setting a key rate at 3.25% and a floor of 2.25% at the interbank market rate, Bank Al-maghrib did not favor the fall in interest rates. In the current context of recession and unemployment with low inflation, the key rate of 3.25% was excessive. A policy promoting lower interest rates is necessary, as is the case everywhere in the face of the current crisis. Following the meeting of the Monetary Policy Council on March 27, 2012, Bank Al-Maghrib has finally decided to lower the key rate to 3%, this decision is necessary; it remains to continue in this direction, because a rate of 3% in the current context is still excessive.

## **2.3** Limits relating to the technique of the monetary reserve

Since the beginning of the 1990s, this technique was first frequently used before 2003 following the lifting of the credit framework. However, the manipulation of the rate of the monetary reserve cannot be used constantly at the risk of creating upward pressure on interest rates given the restrictive impact on bank liquidity. Faced with the situation of excess liquidity, its rate was maintained at 16.5% between 2003 and 2007. Since 2008, with the return of the system in the bank (see table 1), its rate has been revised downwards to reach 6% from  $1^{\text{April}}$  2010. However, this technique is also passive as cash advances, because the central bank has no impact on the use of cash generated in case of drop in rates.



#### 3. Alternative measures for an active monetary policy in Morocco

With the financial crisis of 2008-2009, the Central Banks have generally resumed an active role of supporting activity and employment by reducing the key rates to low levels (at 1% turn). In the current context of low inflation, their action is no longer limited to the exclusive search for price stability. In developing countries, the practice of an policy active constitutes a necessity for monetary regulation and for promoting economic growth. We will present the possible alternative paths that the framework of Moroccan monetary policy allows. We will see the measures relating to the objectives (3.1); then those linked to its instruments (3.2)

#### **3.1** Measures relating to objectives

#### **3.1.1** Final objective:

Article 6 of the statutes Bank Al-Maghrib stipulates that: "In order to ensure price stability, the Bank decides and implements the monetary policy instruments as defined in article 25 below. To this end, the Bank intervenes on the money market by using the appropriate instruments among those provided for in article 25 below. Without prejudice to the objective of price stability decided in consultation with the Minister of Finance, the Bank accomplishes its mission within the framework of the government's economic and financial policy."

We see that the statutes of the central bank therefore allow for flexibility and improve coordination between monetary policy and the rest of government policies. Bank Al-maghrib is concerned about price stability; but if inflation is low and unemployment is high, flexibility is needed. With the current crisis, the major central banks have opted to support activity and employment. Bank Al-maghrib can adapt its strategy to promote economic growth.

#### 3.1.2 Intermediate objective

In terms of intermediate objectives, bank Al-maghrib has never been rigorous, the monetary rule has often been indicative (see Table 2). Moreover, the growth of the M3 aggregate is often strong while the inflation rate is low. Starting in 2006, the central bank decided to implement a multi-criteria (see Figure 2) approach with indicators relating to both the real and financial spheres, since the monetary rule no longer has any significance in view of the size of the gap between forecast and actual. The basket of indicators helps to improve the analytical framework for monetary policy. However, this is a return to a kind of discretionary strategy with the understanding that monetary policy is not constrained by a target.



## Figure N°2: The following document presents the multi-criteria approach according to Bank Al Maghrib



Source : annual report Bank Al-maghrib for 2008 pages 98

Until April 2012, bank Al maghrib follows a strategy of inflation forecasting. it forecasts the ex ante inflation rate which it compares with the ex post inflation rate without any commitment on achievements. This does not constitute an explicit inflation targeting through which, the central bank announces a target for the evolution of the inflation rate that it commits to achieve.

It seems to us that in Morocco, it is preferable not to proceed with explicit inflation targeting for the following reasons:

- It is preferable to keep room for an active and eclectic policy and not to tie our hands by an explicit commitment. You cannot commit to a fixed standard in a changing environment.
- Inflation cannot be targeted in Morocco because, on the one hand, monetary policy does not have the means to ensure price stability, particularly in the case of imported inflation, which is often the case. On the other hand, monetary policy alone cannot ensure price stability, a major role is played by the compensation fund which has limits and raises questions.



Inflation targeting has its advantages, but it is difficult to apply in developing countries, as Reserve Bank of India Governor Bimal Jalan notes: "... Let it be clear that we all have price stability as our objective. However, it seems rather delicate to us to retain, in our case, a narrow quantification of the objective (should it be set, for example, at 2% or a range of 1.5% - 2.5%). I would like to have such a precise target, but this is simply not possible in countries with large rain-dependent agricultural components that are heavily dependent on imports of oil or other raw materials, the price of which is an important element of the cost of living. In many emerging-market countries, trying to achieve an inflation target without taking these factors into account could lead to extremely unrealistic results.

The purpose of explicit inflation targeting is to strengthen the credibility of monetary policy; however, when the prices of imported goods rise sharply, inflation restarts, calling into question that credibility.

#### **3.2** Measures relating to modalities of action

We will look at aggregate measures (3.2.1) and then at measures of monetary policy instruments (3.2.2).

#### 3.2.1 Overall measure: need for bank credit support

The analysis of the resources and uses of banks in Morocco in 2010 presented in the Report on the control and activity of credit institutions shows that Morocco still has the characteristics of a debt economy. The structure of the condensed balance sheet of the banking system reflects that 72.5% of banks' resources are made up of customer deposits and about 65% of their uses are made up of receivables from customers; these are the characteristics of the debt economy in which bank credit plays the main role in financing the economy. It follows that among the monetary transmission channels, the interest rate channel and the credit channel are important. The interest of these channels appears for other reasons as well: one can mention the weight of small and medium enterprises and the legal status of the bulk of Moroccan enterprises that have the form of limited liability companies or sole proprietorships. For these companies, indirect financing remains dominant, they have no possibility of financing themselves by issuing securities on the capital markets, and bank credit is unavoidable. Facilitating credit can have an important leverage effect on the economy. Over the period 1996 -2006: financing through bonds and share issues represented only 1.63% and 0.63% of GFCF on average per annum, respectively. A reduction in the key rate and the revision of its instruments can improve the action of monetary policy. By



lowering lending rates, it can strengthen the price effect and the volume effect of credit to promote growth.

#### 3.2.2 Measures related to monetary policy instruments

The limitations of the techniques used lead us to explore possible ways of making monetary policy more active. The content of Article 25 of the Central Bank's statute allows us to make some suggestions, this article states:

«"In order to inject or withdraw liquidity from the money market, the Bank may, inter alia :

- carry out all outright purchase and sale, discount and repo transactions with money market participants. Such operations may only concern public and private negotiable debt securities denominated in national currency, provided that such securities are not acquired directly from the issuers;

- Grant advances to credit institutions authorized as banks, secured by appropriate collateral;

- To offer to the said institutions to invest with it liquid assets in the form of term deposits;

- conduct both spot and forward foreign exchange transactions;

- Issue and repurchase its own debt securities from money market participants. This issue is not subject to the legislative provisions governing public offerings.

If the excess liquidity is of a lasting nature, the Bank may require credit institutions authorized as Banks to hold minimum reserves with it in the form of deposits. »

We see that this article contains a significant potential for Bank Al-Maghreb's action, we present some of these possibilities in connection with the different possible instruments.

## ✤ Cases where the system is off-bank

Financial liberalization (early 1990s) resulted in the deregulation of interest rates, the lifting of the credit framework, the elimination of compulsory employment, etc. This should lead to an increase in credit. However, the banks devoted a large part of their resources to investing in Treasury bills. This short-term, profitable and low-risk choice, however, has had its drawbacks: it has developed the banks' dependence on Treasury loans. The banks were diverted from their main mission of financing the real economy. At the beginning of the 2000s, and following successive privatization operations and the opening up of the capital of public enterprises, the Treasury no longer needed banking resources, and the banks found themselves in a situation of excess liquidity. To cope with this, the techniques used by the central bank, instead of "sterilizing" excess liquidity, led to the opposite result due to an expansive snowball effect. Liquidity is taken back only for 24 hours or 7 days, during which



time these funds are kept inactive at the central bank, to be returned to the banks, plus interest. Moreover, Bank Al-maghrib considered the situation of excess liquidity as a pathology that had to be fought to bring the system "back to the bank". However, this situation could be very beneficial thanks to the downward pressure on interest rates. Bank Al-maghrib did the opposite by its techniques of liquidity withdrawal; it fixed a rate at the interbank market rate of 2.25%.

#### **\*** Cases where the system is banked

#### Central Bank advances and key interest rate

Refinancing procedure: the technique of advances on repurchase agreements concerns public securities or, on a secondary basis, private securities (credits to SMEs, export credits or credits to young promoters). It is not a firm purchase, which limits its impact on bank liquidity and the real economy. This results in a cumulative need for bank liquidity due to the restrictive snowball effect, as banks have to repay the liquidity advanced plus interest. The observation in table 2 shows that despite the weekly injection of liquidity, the need is growing. Another perverse effect is that the banks themselves risk favoring speculative and short-term jobs since they are obliged to repay the advances in the very short term. We believe that alternative measures are possible:

- ✓ Allocate liquidity advances selectively to priority sectors. In this sense, D. Plihon proposes to: "Promote more detailed management of refinancing by central banks, which would define an individual refinancing envelope tailored to the needs of each banking group; these more individualized management methods would prevent the central bank from validating ex post abnormal risk-taking".
- ✓ Extending the duration of cash advances: why limit the duration of cash injection operations to 24 hours or 7 days A longer duration can allow :

-To reduce the cash shortfall;

- To encourage the financing of the real economy through bank credit;

It should be noted that, following the meeting of the Monetary Policy Council of 27 March 2012, the governor of Bank Al-Maghrib announced that the central bank will put in place targeted financing through proactive support for small and medium-sized enterprises with representative collateral effects.



With regard to the level of the key interest rate: rates can always be lowered gradually in the current context of crisis and unemployment with low inflation: the key interest rate of 3 is still excessive. It is possible to proceed with selectivity in terms of refinancing by volume and by rate in favor of priority sectors.

#### - Measures relating to the monetary reserve

The banks consider the monetary reserve as an additional tax; it has an "administrative" character and limits the development of the interbank market. In Morocco, since the system has been in the banking system (second half of 2007), and to limit the liquidity deficit, the rate of this reserve has been lowered to 6% from 2010 onwards. The monetary reserve is part of a passive logic insofar as the Central Bank has no influence on the use made by banks of the funds released following the reduction of its rate. In this sense, D. Plihon considers that in the current context of financial crisis, it is necessary: "to selectively use the instrument of the mandatory reserves that banks are required to hold with central banks, differentiating their amount according to the composition of their assets, since the reserves based on loans may be lower than those linked to securitization or trading operations".

## ✤ Other possible techniques to be developed

## - The rediscounting technique

Rediscounting (provided for in Bank Al-maghrib's Articles of Association, Article 25) results in outright purchases of securities. Contrary to advances on repurchase agreements, the injection of liquidity here is definitive. This is a means to solve the problem of the liquidity crisis and to directly and selectively encourage credits in favor of priority sectors. During the 1980s, Morocco used this technique to refinance even medium-term rediscount able credits directly linked to investments.

However, rediscounting was abolished in the mid-1990s as a result of financial liberalization reforms and is criticized for its regulatory nature, since the monetary authorities set both the rate and the volume of rediscounting.

## - The open market technique

In Morocco, the open market technique is not used because of the low liquidity of the secondary market for Treasury bills. However, selective interventions can be envisaged, on all maturities and on both public and private securities. It should be noted that the new statutes of



Bank Al-maghrib also provide for the issue or repurchase by Bank Al-maghrib of its own securities. Here again, as it cannot transform these funds into investments, there is theoretically no link with the real economy.

In short, we can say that monetary policy in Morocco is characterized by passivity and low effectiveness in the face of structural liquidity needs. The Central Bank can, however, seize the opportunity to implement a more active and pragmatic monetary policy. It must act on the economic situation and not suffer its effects. Its operational and institutional framework contains possibilities for action which demonstrate that this monetary policy can be improved.

#### Conclusion

This study first presented the evolution of Moroccan monetary policy, the second point related the limits of this policy. It appears that this policy is passive and its instruments are not very effective. A return to the operational and institutional framework of this policy has allowed us to explore ways to make this policy more effective and more active through the proposal of various possible measures.

Monetary policy today has as its ultimate objective price stability; to achieve this, it manipulates liquidity regulation instruments in order to reach an operational objective which is the level of the interbank market rate that it wants to keep close to the key rate (3% in April 2012). The interbank market rate must fluctuate between the two limits of the corridor (24-hour deposit facility: 2% and 24-hour advances: 4%). However, as the link between interbank market rate and final objective is weak, the central bank is called upon to determine an intermediate objective. The policy of setting an intermediate target has experienced a lack of consistency due to the instability of money aggregates. In 2006, the setting of a monetary growth standard was abandoned. Today, Bank Al Maghrib is implementing a strategy for monitoring a set of indicators, both monetary and real. In addition, it directs its policy according to the inflation forecasts which it seeks to estimate both by the consumer price index and by its derivative the underlying inflation rate. This is not, however, an explicit targeting of inflation. The present study allowed us to make the following observations:

In terms of the final objective: monetary policy in Morocco remains linked to price stability; however, in the current context of low inflation and massive unemployment, most central banks have reacted in the direction of greater flexibility in order to revive activity. In



developing countries, the needs of the populations are important, they require a much more active policy.

In terms of instruments: we have shown that whatever the situation of deficit or excess of liquidity, the monetary policy of Bank al Maghrib is a policy of passive regulation of liquidity:

- In the event of excess liquidity, as was the case between 2001 and 2007, the recovery of liquidity and therefore the sterilization of surpluses was only temporary. Instead of reducing the excess liquidity, these techniques amplified it because after 7 days or 24 hours, the banks take back the amount of frozen liquidity increased by interest. There is a perverse effect which we describe as an expansive snowball effect on bank liquidity. A second disadvantage of these techniques consists in the fact that excess liquidity is placed with the central bank in an inactive manner.
- In the event of a liquidity deficit, as has been the case since the second half of 2007, Bank AL Maghrib uses liquidity injection techniques to regulate the interbank market. It also practices the fall in the rate of the monetary reserve (2007: 16.5%, 2010: 6%).

These techniques raise four remarks:

1- liquidity injection techniques are passive because they allow the central bank to inject liquidity but it has no impact on the use of these resources. This recklessness represents a potential risk of allocating banking resources to speculative and unproductive uses. Recall that the causes of the financial crisis in Western countries are linked to uncontrolled banking jobs.

2- Despite the weekly injections of liquidity, the liquidity needs are increasing. The injection of cash for 7 days or 24 hours is based on the repo technique which is not a firm purchase. These techniques, instead of eliminating the liquidity deficit, result in a perverse effect which we qualify: a restrictive snowball effect on bank liquidity insofar as banks are required to repay the funds which have been advanced to them increased interest every week.

3 - Injections of liquidity are only for 24 hours or 7 days, this risks encouraging speculative and very short-term uses to the detriment of the financing of the economy.

4- Lowering the rate of the monetary reserve to replenish banks' liquidity is more effective, it is an increase in liquidity in a definitive way. However, this procedure remains very limited and cannot be used constantly. In addition, it is also passive because, following the fall in its rate, the use of the amounts released escapes the central bank.



Through the analysis of the monetary policy framework, we have concluded that there is potential for action. First, and since credit is the main source of finance for the Moroccan economy, the monetary channel and the credit channel appear to be the most fertile channels of monetary transmission. In this sense, we have shown that more active and more effective solutions are possible such as:

- Extending the duration of liquidity injection operations. Why limit yourself to 24-hour or 7day advances? This time limit reduces the possibilities for banks to act and encourages speculative and very short-term jobs.

- The institution of more selective and individualized management of bank refinancing according to the use of the resources injected. It is possible to add calls for tenders for longer durations but subject to funding from priority sectors. Note that, following the meeting of the Monetary Policy Council on March 27, 2012, the Governor of Bank Al Maghrib announced the future implementation of new financing methods which must target VSEs and SMEs. We believe that these are necessary measures that need to be diversified and strengthened.

- The practice of selective rediscount which would result in a firm purchase of receivables, which makes it possible to solve the problems of the liquidity deficit by definitive injections and to direct bank resources directly to the financing of priority sectors which can benefit from interest rates enhanced.

- The fall in the key rate, which is excessive in the current context to cause the fall in money market rates and favor the most fertile transmission channels. In this sense, and following the meeting of the Monetary Policy Council on March 27, 2012, Bank Al Maghrib has finally decided to slightly lower its key rate from 3.25% to 3%. Such a decision is essential, the key rate must fall further in the current context of crisis with unemployment accentuated by drought.

-The selective use of the rate of the monetary reserve with preferential rates in favor of jobs intended for investment credits;

In conclusion, we can say that monetary policy in Morocco is characterized by passivity and ineffectiveness in the face of structural liquidity needs. The Central Bank can, however, seize the opportunity to implement a more active and pragmatic monetary policy. It must act on the economic situation and not suffer its effects. Its operational and institutional framework conceals possibilities for action which demonstrate that this monetary policy can be improved.



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