INTERNATIONAL JOURNAL OF RESEARCH IN ECONOMICS AND FINANCE, 2024, Vol. 1, No. 4, 116-130.

Inflation Targeting in the MENA Region: The Cases of Egypt, Turkey and Morocco

Selma SIDKI
Faculty of Economcis and Management, Ibn Tofail University, Kénitra, Morocco

Abstract. The transition to an inflation targeting regime represents a pivotal shift for any central bank in shaping its monetary policy framework. This transformation is typically preceded by significant structural changes in the economy, including the development of financial markets, the adoption of fiscal discipline, and the reform of exchange rate regimes, with the transition to floating exchange rates being a critical prerequisite. Initially introduced by New Zealand in 1990, inflation targeting has since gained prominence as a strategy for achieving price stability. While not all developed countries explicitly adopt this regime, the objective of price stability remains a cornerstone of their monetary policies, often integrated alongside other economic goals. For emerging economies, the adoption of inflation targeting has coincided with extensive economic restructuring and reforms. Key reforms include enhancing the independence of central banks, transitioning to more flexible exchange rate regimes, and developing robust capital markets. These changes reflect efforts to meet the institutional and technical prerequisites necessary for the successful implementation of inflation targeting. As a result, many emerging countries have adopted or are preparing to adopt this regime as a credible alternative to monetary targeting and fixed exchange rate frameworks.

Keywords: Inflation targeting; Central bank independence; Monetary policy; Floating exchange rate; Fixed exchange rate.

1. Introduction

Since the early 1990s, many central banks have replaced their old monetary strategies with an inflation targeting regime. The Reserve Bank of New Zealand (RBNZ) was the first central bank to adopt this regime in 1990. Since then, numerous central banks in advanced economies have followed suit, and this regime has been attracting growing interest from many countries, particularly emerging ones. The enthusiasm of these countries for the inflation targeting regime continues to increase. This is due to the perceived success of the strategy in controlling inflation rates and maintaining price stability.

From the late 1970s to the mid-1990s, inflation rates rose dramatically, and the period of "great moderation" has now concluded for many nations. Consequently, old monetary strategies were deemed inadequate for addressing the challenges of inflation and had to be replaced.

The subprime crisis of 2008 and the resurgence of inflationary pressures following various geopolitical crises, particularly the Ukraine-Russia conflict since 2022, have brought the importance of the inflation targeting regime back into focus, both in academic discourse and within central banks. Although central banks have been criticized since the 2008 crisis for being overly focused on price stability while underestimating financial system risks, this does not fundamentally undermine the central banking model, where price stability remains the primary objective. Inflation targeting is seen as one of the most suitable regimes for achieving this goal. Notably, it has delivered satisfactory results in terms of price stability in the countries that have adopted it.

Since the 1990s, countries in the MENA region have been restructuring their economic and financial frameworks to achieve and maintain macroeconomic equilibrium. Within this restructuring, the monetary policy framework plays a crucial role, especially in the reform of exchange rate regimes and the adoption of appropriate monetary strategies. In this context, several MENA countries have adopted the inflation targeting regime, while others are preparing to implement it.

This article aims to assess the feasibility and relevance of the inflation targeting regime for MENA countries. In Section (I), we present the conceptual framework of the inflation targeting regime. Section (II) outlines its main features. Section (III) evaluates the adoption of this regime in selected MENA countries (Egypt, Turkey, and Morocco). Finally, in Section (IV), we provide our conclusions.

2. Conceptual framework

Since the mid-1970s, Friedman-style monetarism has taken center stage in monetary policy and, more broadly, in economic policy and the policy mix. The Keynesian trade-off between inflation and growth lost credibility in the wake of the stagflation that affected modern economies from 1977 onward. Consequently, the idea of allocating stabilization policies to specific objectives, à la Mundell, gained traction. This shift was supported by numerous works, including those of Milton Friedman, which argued for assigning monetary policy exclusively to the fight against inflation. In other words, monetary policy and money should no longer be used to stimulate the economy.

This goal is better achieved by insulating monetary policy from direct government control, thereby avoiding their time-inconsistent discretionary policies (Kydland and Prescott, 1977) and shielding it from ideological and electoral influences (Nordhaus). From this work emerged the notion of entrusting monetary policy to a "non-politicized" institution, capable of operating with complete independence and resisting the pressures of political cycles, especially on the eve of elections. The central bank thus emerged as the institution best suited to achieve this objective.

The concept of an independent central bank took center stage in central banking practices starting in the 1990s. Since then, the independent central bank has become the institutional guarantor of price stability, with numerous strategies developed to achieve this goal. However, the cornerstone of any successful strategy is achieving the optimal mix of rigidity and flexibility to ensure price stability, sustain the credibility of monetary policy, and address the economic shocks that may arise—particularly when the central bank is called upon to play its role as lender of last resort.

The rapid transformations in economics and finance, coupled with the accelerated development of financial products, require central banks to continuously adapt their monetary strategies to new realities without compromising their independence. These changes have blurred the once-clear relationship between inflation and money observed 30 years ago, rendering money supply-based strategies less effective. This has led many central banks to adopt inflation targeting regimes. The Central Bank of New Zealand was the first to do so in 1990. Since then, numerous central banks have followed suit, with varying degrees of success, while others, such as the Federal Reserve (FED), the Bank of Japan (BOJ), and the European Central Bank (ECB), do not adhere to this regime.

However, for an economy to base its monetary policy on an inflation targeting regime, it must meet specific economic (technical) and institutional requirements. Mundell's incompatibility principle (Mundell, 1963) highlights that a country cannot simultaneously maintain an independent monetary policy, a fixed exchange rate regime, and free capital movement.

Globalization and the dominance of liberal economic principles, which remain largely unchallenged even after the subprime crisis, have necessitated the liberalization of capital flows and the conduct of monetary policy by an independent central bank. This has become essential to achieving inflation rates that are not detrimental to economic growth, as previously mentioned. Consequently, exchange rate regimes have shifted toward greater flexibility. Both developed and developing countries with significant openness are compelled, if they aim to

maintain autonomous monetary policies with price stability as the primary objective, to float their exchange rates and adopt a different nominal anchor—namely, the inflation rate.
The key questions are: Are all countries prepared to transition to a monetary strategy based on inflation targeting? Are they ready to adopt floating exchange rate regimes? And is this transition to floating rates always straightforward and successful?

3. Definition and prerequisites of inflation targeting

Inflation targeting is a monetary policy framework with a fundamental objective: maintaining the inflation rate within a predefined range. This target level is chosen in advance and publicly and explicitly announced as the central bank's primary goal. The policy allows the inflation rate to fluctuate around the target within a reasonable band, providing the central bank with flexibility to respond to shocks and achieve other objectives, such as addressing deflation or stabilizing exchange rates.
This framework obliges the central bank to ensure a low inflation rate. The central bank and the government jointly announce the inflation target, after which the central bank is free to use the instruments at its disposal to achieve this goal. Additionally, the central bank must publish information about its strategies and decisions. This transparency enhances the central bank's credibility and accountability.
Under this system, the central bank enjoys a degree of independence. By adopting explicit targets, the institution is compelled to follow a coherent policy. The framework allows the central bank to freely choose the monetary policy instruments it uses. This autonomy provides the central bank with room to maneuver in response to potential endogenous and exogenous shocks, as mentioned earlier.
In an inflation targeting framework, the central bank adjusts its instruments (e.g., interest rates) to bring the forecasted inflation rate closer to the target. The inflation forecast serves as an intermediate objective, guiding the necessary actions. This forward-looking approach is vital as it minimizes delays between the modification of monetary policy instruments and their impact on the ultimate strategic objective.
In practice, the central bank determines the future direction of monetary policy based on indicators derived from inflation forecasts. These forecasts rely on macroeconomic models, mechanical modeling methods, market surveys, or changes in key monetary and financial variables. If multiple indicators suggest that inflation is likely to exceed the target, the use of instruments becomes well-justified and understandable.
Inflation targeting gains full legitimacy when the relationship between inflation and the money supply becomes less reliable due to the increasing instability of money demand. When a central bank targets the inflation rate, it avoids pursuing other nominal targets. This singular focus ensures that the central bank's credibility remains intact, as failure to meet the target could undermine its ability to anchor economic agents' expectations and, consequently, its effectiveness in conducting monetary policy.
To claim that a central bank follows an inflation targeting regime, the following characteristics must be satisfied:
i) It must have a quantified inflation target.
ii) It must have a clear time horizon for achieving the target, generally within a specific range.
iii) The central bank must not pursue other nominal targets, such as the money supply or exchange rates, remaining focused on price stability.
If the central bank is compelled by an endogenous or exogenous shock to adjust its inflation target, it must publicly announce and justify the change to maintain credibility and avoid surprising the public with unexpected monetary policy shifts.
It is important to note that focusing on price stability does not imply neglecting other aspects of macroeconomic policy, especially when economic conditions demand broader

considerations. In this sense, the inflation targeting regime provides the central bank with flexibility to respond to shocks, whether endogenous or exogenous. The extent of this flexibility depends on the economic context and is reflected in the target range and the time horizon for achieving it.

Under this regime, the central bank is also required to increase transparency to maintain market confidence and anchor expectations, which are crucial for effective monetary policy. Enhanced transparency necessitates greater communication with markets and the public. To this end, the central bank should publish its forecasts for inflation and economic activity.

The transition to an inflation targeting regime requires specific constitutional and technical (economic) prerequisites. These prerequisites, particularly those related to the underlying structures of the economy, are easily met in some countries but not in others. Key prerequisites include the independence of the central bank, the effectiveness of monetary policy transmission channels, a floating exchange rate regime, a sufficiently developed financial system, and adequate fiscal discipline to strengthen monetary policy autonomy.

a. Central bank independence (CBI)

Central Bank Independence (CBI) is a necessary condition for the implementation of the inflation targeting regime. Any monetary strategy requires an institutional framework to support it. The role of an independent central bank is to prioritize price stability as its primary objective; without this, its legitimacy would be contested. However, as Michel Aglietta aptly noted in 1992, such an institutional framework without a strategy and tools capable of achieving price stability would be an "empty shell." In other words, a central bank that is independent in its statutes but lacks the necessary instruments to fulfill its objectives is essentially ineffective. It is in this sense that independent central banking and inflation targeting are inherently complementary.

Inflation targeting, as a monetary strategy aimed at maintaining stable prices, must be implemented by an institution independent of government influence regarding its objectives. A central bank, by virtue of its independence, must have the authority to make final decisions in the event of conflicts between its price stability mandate and government objectives. This underscores why inflation targeting cannot function effectively under a central bank that defers to governmental priorities during such conflicts.

Inflation targeting, which seeks to achieve price stability by directly targeting the inflation rate, relies heavily on understanding the inflation expectations of economic agents. This understanding is only possible if the central bank maintains credibility throughout the design and implementation of monetary policy. A credible central bank is one that avoids surprising economic agents by deviating from its previously announced monetary policy objectives. For instance, at time T1, the central bank must not pursue a monetary target different from what it had committed to at time T0. By doing so, it builds and sustains the trust of economic agents.

b. Fiscal discipline

Following an inflation targeting regime means, as mentioned above, that the central bank prioritizes price stability as its primary objective. When there is a conflict between economic policy objectives (e.g., reducing the public deficit), the central bank must resist the government's pressure to finance its deficit using the monetary base. Government and public sector spending must never be financed by the monetary base. Fiscal imbalances must also be brought under control, as unchecked imbalances can lead to banking and financial crises, undermining any chance of controlling inflation.

Introducing fiscal discipline, therefore, becomes a logical necessity. High public debt and deficits incentivize governments to finance their excesses through the monetary base, which results in an inflationary bias and, ultimately, the failure of any monetary policy aimed at price stability. However, as noted earlier, fiscal discipline does not imply that the central bank should disregard issues of public debt and deficits in critical contexts, such as situations that might lead to government defaults. In such cases, the central bank should use its room for maneuver and fully fulfill its role as lender of last resort.

It is worth noting that fiscal dominance often reflects a fragile banking system, a shallow financial market, insufficient tax revenues, and inefficient tax administration.

The presence of a developed financial system is both an institutional and an economic prerequisite for successful inflation targeting. A developed financial market ensures the proper transmission of monetary mechanisms and enhances the effectiveness of monetary policy.

A developed financial market is crucial for several reasons. First, it provides the public treasury with alternative resources for financing deficits, reducing reliance on the monetary base and thereby avoiding inflationary bias. Second, it strengthens the link between monetary policy and intermediate interest rates, making monetary policy transmission more efficient. In other words, decisions by the central bank regarding interest rates are more readily passed on to the financial markets. This not only enhances the effectiveness of monetary policy but also bolsters the central bank's credibility.

c. Flexible exchange rates

The introduction of an inflation targeting regime by a central bank requires the central bank to avoid pursuing any other nominal target, such as the quantity of money supply or the nominal exchange rate. If the central bank simultaneously targets both the inflation rate and the exchange rate, its interventions in the foreign exchange market to stabilize the currency's value may conflict with achieving the inflation target.

For this reason, it is generally advisable for a country to adopt floating exchange rates before introducing an inflation targeting regime. However, in practice, the transition is not always systematic. Moving to floating exchange rates can be a gradual and deliberate process, guided by careful planning. Alternatively, it can result from unfavorable economic conditions, such as exchange rate crises, which force economies to float their exchange rates prematurely.

It is also worth noting that many central banks have successfully implemented inflation targeting regimes while gradually increasing the flexibility of their exchange rate systems, without making an abrupt shift to fully floating rates. This approach has not prevented these central banks from achieving significant success in maintaining price stability.

d. Central bank credibility

Over the long term, this confidence allows the central bank to build credibility, encouraging economic agents to base their decisions on its announcements. The credibility of the central bank ensures that monetary policy aligns well with the broader macroeconomic actions of public authorities. However, it also depends on the quality of cooperation among institutions responsible for economic policies.

This is crucial because, when the central bank is compelled to deviate slightly from its inflation target in the short term, economic agents are less likely to raise their inflationary expectations. This enables the central bank to return to its original inflation target in the medium term without significant disruption.

According to Blinder (2000), greater credibility reduces the cost of disinflation, helps maintain low inflation levels, facilitates defending monetary policy when necessary, and increases public support for central bank independence.

That said, credibility is not static; it is a continuous process that takes time to develop. It evolves from a low to a more sustained level and gradually increases over time, but it remains vulnerable to being abruptly questioned in the event of a shock. The personal credibility of central bank leaders often plays a critical role in this process.

Aglietta (2002) defines the credibility of monetary policy as "the recognition of its determination to preserve the monetary regime on which the central bank has based its strategy, despite the deviations it allows to absorb shocks under the best possible conditions." Aglietta also distinguishes between credibility and trust: confidence arises from mutual understanding between the central bank and economic agents, while credibility can exist independently of trust.

4. International experience of inflation targeting

Since its initial adoption by New Zealand in 1990, the inflation targeting regime has continued to attract the interest of central banks, particularly in emerging countries, which increasingly view this approach as beneficial. The enthusiasm for inflation targeting among central banks is largely due to its success in achieving price stability and controlling inflation by anchoring expectations. Countries that have adopted inflation targeting have generally maintained low inflation rates over the long term. While significant differences exist between industrialized and emerging countries, the overall results are satisfactory.

Industrialized countries adopted inflation targeting in a context of strong macroeconomic health, transitioning to the regime under conditions of already low and stable inflation. This has allowed most of these countries to achieve their inflation targets consistently. The results in these cases have been promising, as inflation targeting has facilitated convergence in inflation rates.

What is particularly noteworthy is that, despite exposure to numerous disruptions, inflation targeting has proven resilient and continues to garner interest among central banks in emerging and developing countries.

For developing countries, such as those in Latin America and Turkey, adopting inflation targeting has helped achieve tolerable inflation rates. In many cases, these countries transitioned to the regime without meeting all the necessary prerequisites. Nevertheless, the process has enabled them to reform and stabilize their macroeconomic frameworks while deepening their understanding of monetary transmission mechanisms.

These countries adopted inflation targeting under challenging circumstances, including mixed economic growth, rising seigniorage, and high public debt. They were compelled to reduce seigniorage to curb inflation. Most also had to confront their exchange rate policies and transition to floating exchange rates, which presented significant challenges inherent to this regime.

One persistent issue for emerging countries has been the instability of monetary policy transmission lags. The limited or delayed use of market-based monetary instruments in these economies complicated the assimilation of monetary transmission mechanisms, resulting in unstable transmission lags.

Another critical factor to consider when evaluating inflation targeting in developing countries is the alignment of conditions necessary for transitioning to this regime. Many emerging economies, such as Turkey, did not wait for all prerequisites to be in place before adopting inflation targeting. Turkey initially implemented "implicit inflation targeting," using this period to better prepare its economy for full adoption of the regime.

That said, inflation targeting has helped some developing countries curb inflation, manage inflationary expectations, and push central banks toward greater transparency and accountability.

It is clear that adopting an inflation targeting regime can be a beneficial monetary policy strategy, but it must be tailored to the specific economic and financial structures of each country. Transitioning to inflation targeting should be a carefully considered decision, particularly when it necessitates changes to the exchange rate regime. Floating the exchange rate, in most cases, has significant implications for vital sectors of the economy.

It is also important to note that many central banks achieving notable success in price stability do not operate under an inflation targeting regime. This includes the G3 central banks: the European Central Bank (ECB), the US Federal Reserve (FED), and the Bank of Japan (BOJ).
The ECB has an explicit monetary policy strategy. In contrast, the FED and BOJ remain less transparent about their monetary strategies. According to the FED's statutes, its monetary policy objectives include price stability, maximum employment, and moderate long-term interest rates. The FED does not publish a formal monetary policy strategy, nor does it have an explicit inflation target or quantitative definition of price stability. Its quantitative goals are implicit and influenced by the personal discretion of its central bankers. As Etiost (2005) aptly described it, “The Federal Reserve: a God but not a rule,” encapsulates the FED's unique position.
In Japan, the BOJ's objective is to achieve price stability while contributing to sound economic development. Like the FED, the BOJ does not provide a quantitative definition of price stability. When, in 2006, the BOJ suggested that price stability corresponded to consumer price inflation within a range of 0% to 2%, it explicitly stated that this was not an "inflation target" but rather a summary of the Board’s opinions. This distinction preserves the BOJ's discretionary power, as it can deviate from the range without facing the constraints of an official inflation target. It is worth noting that Japan experienced prolonged deflation (from 1992 to 2003), leading to a banking and financial crisis that forced the BOJ to adopt the Zero Interest Rate Policy (ZIRP), maintaining the key rate at 0%. Such a policy is incompatible with an inflation targeting strategy.

5. Inflation targeting for MENA countries : Egypt, Turkey and Morocco

Since the early 1990s, several central banks have gained autonomy to fulfill their primary mandate of ensuring price stability, the natural objective of monetary policy. This independence has been reflected in their ability to operate free from political influence and in their discretion over the choice and implementation of monetary policy instruments. It is important, however, to distinguish between the concept of central bank independence and the inflation targeting regime. This distinction is crucial because central bank independence, which provides an institutional framework for monetary policy focused on price stability, is often mistakenly conflated with the inflation targeting regime, which is a specific monetary policy rule centered on an inflation target. As noted earlier, while central bank independence serves as an enabling institutional framework, it is not synonymous with the inflation targeting regime. Although the majority of independent central banks have adopted inflation targeting since it was first implemented by the Reserve Bank of New Zealand, some independent central banks have opted not to switch to this regime. Conversely, there are rare exceptions where central banks operate under an inflation targeting regime without full independence. It is worth noting that while an independent central bank can achieve price stability without implementing an inflation targeting regime, the transition to inflation targeting requires central bank independence as an institutional prerequisite. This underscores the distinction between the two concepts. Understanding this difference is necessary because, when evaluating the performance of independent central banks, the assessment often overlaps with that of the inflation targeting regime. The aim of this section is to evaluate the effectiveness of central banks in Egypt, Turkey, and Morocco, in achieving and maintaining price stability.

a. The case of the Egyptian central bank

Since the early 1990s, like many emerging economies, Egypt has undergone significant macroeconomic and financial changes. To address various imbalances, the country initiated a series of economic and financial reforms. Among these was the reform of the Central Bank Act in 2003, aimed at granting the Central Bank of Egypt (CBE) greater autonomy in the conduct of monetary policy.

i. Autonomy and Instrumental Independence

The Banking Law No. 88 of 2003 provided the CBE with instrumental independence, declaring price stability as its primary objective. While the CBE has the autonomy to choose monetary policy instruments, it does not have the freedom to independently determine the inflation target. Decisions on monetary policy remain confidential and are made by the Monetary Policy Committee (MPC) in line with the provisions of the law.

The CBE operates with operational independence, ensuring that its interest rate decisions are not disclosed to the government or markets before their official publication. This ambiguity helps the central bank maintain strategic control over monetary policy. However, this approach has evolved over time, introducing greater transparency to anchor the expectations of economic agents.

ii. Evolution of Monetary Policy Framework

In June 2005, the CBE shifted its monetary policy framework, adopting the interbank rate as the main operational tool instead of the reserve requirement. This transition established a corridor system, where the ceiling is the overnight lending rate, and the floor is the overnight deposit rate at the central bank. This strategy marked the beginning of more transparent communication, as the CBE announced its monetary policy for the first time via a press release. Following a decline in inflation (from 1.9% in 2004 to 1% between July and September 2005), the CBE gradually lowered overnight facility rates, signaling a broader monetary easing. This adjustment contributed to the effective transmission of monetary policy decisions, as evidenced by the alignment of interbank deposit and lending rates with the central bank's key rates.

iii. Impact on Growth and Investment

The monetary policy reforms supported increased investment and growth. During the period from July to September 2005-2006, the annual growth rate rose to 5.3% from 4.9% in the previous year. Private investment accounted for 58.5% of total investment, up from 52.5%. These reforms highlighted the growing role of the private sector in Egypt’s economic development.

The reforms were complemented by efforts to improve transparency. Since 2005, the CBE has published reports on inflation forecasts and summaries of MPC decisions, further aligning public expectations with policy objectives.

iv. Addressing Liquidity and Inflation

The CBE pursued non-expansionary monetary policies, reducing domestic liquidity growth from 7.7% in June 2005 to 5.8% in December 2005. Inflation fell from 3.4% in June 2005 to 1.9% in December 2005, enabling successive cuts in lending and deposit rates. These decisions narrowed the corridor band from 3% to 2%, demonstrating the CBE’s growing mastery of monetary transmission mechanisms.

During 2006-2007, the MPC raised interest rates to counter inflationary pressures caused by higher growth rates and external shocks, such as avian flu and changes in petroleum product subsidies. To manage liquidity from foreign investment inflows, the CBE introduced mechanisms like Central Bank Notes and Certificates of Deposit.

v. Steps Toward Inflation Targeting

Although Egypt has not yet adopted a full inflation targeting regime, the CBE has taken significant steps to prepare for this transition:

- Transitioning from quantitative to price-based operational targets (corridor system since June 2005).
- Enhancing market mechanisms for liquidity management.

- Introducing instruments like Central Bank Notes (August 2005) and Certificates of Deposit (March 2006).
- Publishing inflation forecasts and preparing an inflation index to identify inflationary pressures.

These measures establish a robust institutional platform for inflation targeting, although questions remain about whether the CBE or the government will set the inflation target.

vi. Contribution of Central Bank Independence

The reform of the CBE's autonomy and instrumental independence has significantly contributed to reducing inflationary bias. However, Egypt's macroeconomic and structural reforms began prior to the central bank's independence, leading to sustained growth, increased investment, and reduced inflation. This sequence challenges the theory of inflationary bias, which posits that central bank independence precedes inflation control. Instead, it suggests that independence consolidates existing reforms, ensuring price stability over the long term.

vii. Outlook for Central Bank Independence

Despite criticisms, the concept of central bank independence remains vital for maintaining anti-inflationary policies in the medium and long term. Modern central banks are expected to retain their independence, albeit with potential refinements in response to economic challenges and crises.

Egypt's experience highlights the importance of a phased approach to monetary policy reform, where macroeconomic stability and structural adjustments lay the groundwork for central bank independence. The CBE's autonomy, complemented by its evolving monetary policy framework, demonstrates its capability to achieve price stability while preparing for the eventual adoption of an inflation targeting regime.

b. The case of the Turkish central bank

The Turkish central bank was granted independence in 2001, following a severe economic crisis in February of that year. This crisis stemmed from a challenging economic and financial environment characterized by highly volatile growth rates and an unsustainable public debt level, which reached 104% of GDP between 2000 and 2001.

i. Context of Macroeconomic Instability

Turkey faced chronic macroeconomic instability, with persistently high inflation rates averaging 64% between 1982 and 2002. The peak inflation rate was recorded in 1994, at a staggering 125%. The root causes of this uncontrollable inflation were primarily a lack of fiscal discipline and lax fiscal policies.

To address these challenges, the monetary authorities adopted restrictive monetary policies aimed at reducing seigniorage. However, this initially led to an increase in public debt, which in turn required further seigniorage to repay the debt, creating a vicious cycle of fiscal dominance over monetary policy.

ii. The Crisis and Reforms

The economic crisis of 2001 resulted in a sharp GDP contraction of 9.4% within a year. In response, the monetary authorities introduced a series of economic and financial reforms targeting various sectors, including the liberalization of services and granting independence to regulatory bodies such as the banking authority and the competition council. Fiscal discipline was also prioritized, with new laws aimed at consolidating public expenditure.

These reforms yielded positive results, reviving economic growth and improving macroeconomic performance. High inflation further highlighted the need to reform the statutes of the Turkish central bank, granting it greater independence in conducting monetary policy.

iii. Central Bank Independence and Implicit Inflation Targeting

Since May 2001, the Turkish central bank has operated as an independent institution, pursuing a monetary policy based on implicit inflation targeting until conditions were met for adopting explicit inflation targeting. The independence of the central bank was reflected in its mandate to prioritize price stability, as well as in its discretion to determine monetary policy and select the instruments necessary to achieve this goal.
Key provisions of the new statutes included:

- A prohibition on advances to the Treasury.
- The regulation of procedures for dismissing the Governor.

iv. Achievements of Implicit Inflation Targeting

Under the implicit inflation targeting regime (2001-2005), Turkey achieved significant improvements:

- Inflation fell to an average of 7.7%.
- The economy maintained robust growth, averaging 7.4%.
- Public debt as a percentage of GDP declined from 105% in 2001 to 69% in 2005.
- Public loans as a percentage of GDP dropped from a peak of 16% to 0%.

These results encouraged monetary authorities to transition to explicit inflation targeting in 2006.

v. Transition to Explicit Inflation Targeting

The transition to explicit inflation targeting in 2006 followed extensive reforms, including the adoption of a floating exchange rate, a prerequisite for targeting inflation in an open economy. This shift aligns with Mundell's incompatibility triangle, which states that a country cannot simultaneously target two nominal values—such as the exchange rate and inflation rate—while maintaining an independent monetary policy.
The explicit inflation targeting regime in Turkey was accompanied by improved public communication. The Turkish central bank began publishing inflation reports, analyzing current trends, and assessing potential inflationary risks. While the regime resembles a "soft" inflation targeting framework, it differs from "hard" inflation targeting in several respects:

- The central bank continued limited interventions in foreign exchange markets.
- It published inflation reports but did not provide medium-term inflation forecasts.
- There was no fixed timetable for interventions, and quantitative targets for the monetary base and foreign exchange reserves, as agreed with the IMF, remained in place.

vi. Challenges and Credibility

Despite these advancements, challenges persisted:

- Public debt as a percentage of GDP remained high in 2005, though fiscal dominance eased.
- Banking sector reforms strengthened the financial system, yet issues of risk and profitability lingered into 2006.
- Inflation, while reduced, remained above target, which could undermine the central bank's credibility over time.

Nevertheless, Turkey's performance in controlling inflation has bolstered the central bank's credibility, supported by its effective use of monetary policy instruments and its cautious approach to interest rates. Over time, the central bank has established a credibility base, as evidenced by the confidence of economic agents in its ability to maintain price stability, even when short-term deviations occur.

vii. Lessons from Turkey

The Turkish case underscores several key points:

- **Central Bank Independence Precedes Inflation Targeting:** Central bank independence as an institutional framework must precede the adoption of inflation targeting, especially in emerging economies with unfavorable initial conditions.
- **Gradual Transition:** Turkey's stepwise approach, starting with implicit inflation targeting, allowed it to implement necessary economic and institutional reforms before adopting explicit inflation targeting.
- **Communication and Credibility:** Strengthening public communication and building credibility are essential to influencing inflation expectations and achieving monetary policy objectives.
- **Exchange Rate and Inflation Nexus:** In the long term, changes in the exchange rate remain a primary determinant of inflation, emphasizing the importance of the exchange rate channel in monetary transmission.

The Turkish experience demonstrates that central bank independence enables the pursuit of price stability even in challenging economic and financial contexts. However, this independence must be accompanied by comprehensive reforms to ensure sustained success. While Turkey has made remarkable progress, maintaining inflation within target ranges remains a long-term challenge for preserving the central bank's credibility.

c. Inflation targeting in Morocco

Like many central banks in emerging countries, Morocco's central bank, Bank Al-Maghrib (BAM), plans to transition to an inflation targeting regime in the medium term. BAM aims to implement this shift in its monetary strategy to enhance the credibility of its monetary policy and address the evolving relationship between money and inflation, which has rendered monetary strategies based on targeting the montaru aggregates less effective.

This decision is also crucial for BAM as it seeks to tackle the challenges posed by the current exchange rate regime. These challenges are driving the central bank to prepare for a transition to a floating exchange rate system, with inflation targeting serving as a substitute for the exchange rate target. The key questions are: Is the Moroccan central bank ready in the medium term to move to explicit inflation targeting? What about the exchange rate issue, which is a key institutional condition? Is Morocco prepared to transition its exchange rate regime to a pure float? And how is it preparing for this significant change?

i. The independence of Morocco's central bank (BAM)

BAM's 2006 Articles of Association strengthened its independence on several issues, including the choice of instruments for achieving its monetary objectives, autonomy from political power, and the non-monetization of state debt. Under the new Banking Act, the National Credit and Savings Council and the Credit Institutions Committee are no longer consulted on decisions, implementation, and technical aspects of monetary policy.

The main contributions of the 2006 statutes relate to: (i) the recognition of price stability as the first priority of monetary policy, which has strengthened the independence of BAM by making monetary policy autonomous to conduct an anti-inflationary policy and enhance the credibility of the monetary authority among economic agents; (ii) the absence of government representatives on the central bank's Board, which has further strengthened its independence from political power and protects it from pressures to achieve objectives other than price stability, such as combating unemployment or financing the treasury deficit. The representative of the Ministry of Finance no longer has the right to vote on monetary policy, demonstrating BAM's autonomy in monetary policy decisions; (iii) BAM's total freedom to choose the instruments it uses to conduct monetary policy, which is crucial since a central bank cannot properly conduct an anti-inflationary policy without independence in its choice of instruments; (iv) the preservation of the objective of price stability in cases of conflicts between objectives; (v) the limitation of advances to the government, which strengthens the central bank's independence and supports the pursuit of price stability by avoiding inflationary pressures caused by seigniorage; (vi) the dismissal and composition of members of the central bank Board are no longer left to the discretion of the Minister of Finance but are defined by BAM's Articles of Association, with dismissals only allowed in cases of incompetence or serious misconduct. This change improves the degree of independence of the central bank and establishes the Board as the master of its monetary policy decisions; (vii) the granting of financial independence to BAM; and (viii) the regulation of the rotation of Bank Board members, as before 2006, a Royal Decree could alter the composition of the Board upon a proposal from the Ministry of Finance. The 2006 Articles of Association now specify that members are appointed for renewable six-year terms and can only be dismissed for incompetence or serious errors.

All these contributions to the 2006 Articles of Association demonstrate that BAM's independence has been significantly consolidated and institutionalized. This independence is not only enshrined in the text of the law but also reflected in the central bank's behavior.

Following the subprime crisis of 2007, central banks have taken on additional responsibilities beyond their traditional roles, particularly in conducting macroprudential policy. A draft of the new BAM statutes is currently being voted on to define procedures for macroprudential policy and further consolidate BAM's status as an independent central bank. The draft statutes do not diminish BAM's independence. On the contrary, they strengthen it, with price stability established as the central bank's primary objective. This represents a significant increase in BAM's degree of independence, as the objective variable is a critical determinant of central bank autonomy. In the 2006 statutes, price stability was only one of several objectives.

Article 6 of the draft clearly states that monetary policy is entirely the prerogative of the central bank, while the bank consults with the government to coordinate economic and macroprudential policies. The draft also strengthens the institutional independence of BAM by enhancing the powers of the Bank's Board.

ii. Budgetary discipline

In Morocco, the separation between monetary and fiscal operations is clearly defined and reinforced by BAM's 2006 Articles of Association. Under these bylaws, BAM is no longer obligated to finance the deficit of the government or public companies, except through a liquidity facility limited to 5% of the government's fiscal resources and intended for use only up to 120 days a year. In addition to limiting reliance on seigniorage, the monetary authorities have implemented a robust public debt management program. This program has proven effective, reinforcing the principle of separation between monetary and fiscal operations in Morocco. Since 2005, fiscal performance has significantly improved. The public deficit was reduced to less than 2% in 2006, and surpluses were achieved in 2007 and 2008. This progress was driven by a combination of increased tax revenues—up 3% compared to 2006 due to a broader tax base—and a reduction in public debt, which decreased from 61% of GDP in 2006 to 56.9% in 2009. However, exogenous shocks, such as the 2008 global financial crisis, temporarily reversed this trend. By 2010, the Treasury debt-to-GDP ratio had rebounded, rising from 50.3% in 2010 to 59.6% in 2012 and 63.4% in 2014. These continuous increases in

Treasury debt and overall public debt have created a snowball effect, which is detrimental to economic stability and, in extreme cases, can lead to government defaults.

iii. The nature of the Moroccan financial market

Morocco has witnessed significant developments in its financial market, including the spread of universal banking, the liberalization of interest rates, and the deregulation of banking activities. Key milestones include the lifting of the credit framework in 1991, the abolition of compulsory investments between 1992 and 1998, and the gradual liberalization of deposit rates beginning in 1985 and lending rates starting in 1990. These reforms were consolidated with the enactment of a new banking law in 1993.

To mitigate the risks associated with liberalization, the monetary authorities introduced robust prudential regulations. The reform of the Banking Act and BAM's 2006 Articles of Association marked the culmination of these efforts. However, despite these considerable achievements, the banking sector—which constitutes the majority of Morocco's financial system—remains closely tied to state capital, with the government holding 27.6% of the sector in 2006.

The capital market has also undergone significant reforms since 1984, leading to the creation of a dynamic money market and the establishment of a single, transparent capital market. A landmark development was the creation of the Treasury bill auction market in 1989, which progressively opened to banks, financial institutions, insurance companies, public and private companies, and, by 1995, individuals and non-residents. In the same year, the money market was opened to private issuers through the introduction of negotiable debt securities, such as certificates of deposit, finance company bonds, and commercial paper issued by non-financial companies.

These reforms have fostered financial disintermediation, encouraging alternative channels to bank lending. Consequently, the Moroccan financial market has achieved significant development, establishing the foundational prerequisites for implementing an inflation targeting regime.

iv. Transparency of monetary policy

Inflation targeting requires a high degree of transparency, credibility, and communication from the central bank to anchor inflation expectations among economic agents. Since 2006, the Central Bank Council has published press releases following each meeting, and the Governor of BAM holds press conferences to explain monetary policy decisions. BAM also issues periodic and quarterly publications.

After each Board meeting, a press release detailing monetary policy decisions is made public. The Governor of BAM holds an annual press conference to present assessments and policy directions to the public. As part of its transparency drive, BAM began publishing reports on supervisory activities in 2004 and on the payment system in 2006. Additionally, BAM officials regularly engage with the press, provide commentary on monetary policy strategies, and participate in conferences.

While BAM has made significant strides in transparency, gaps remain. Working documents and detailed reports on inflationary pressures are not yet published on its website, a standard practice for modern central banks. These shortcomings must be addressed as BAM transitions to an inflation targeting regime.

v. The Moroccan exchange rate regime

Adopting an explicit inflation targeting regime requires the central bank to abandon other nominal targets, particularly exchange rate targeting, to avoid conflicts between objectives. A central bank cannot simultaneously target price stability (monetary policy) and exchange rates (exchange rate policy) without compromising its credibility. Therefore, transitioning to a floating exchange rate is a prerequisite for adopting inflation targeting.

In January 2018, Morocco began this transition by widening the fluctuation band of the dirham from ±0.3% to ±2.5%. This reform represents a step toward floating within the framework of a fixed regime, aimed at eventually transitioning to a fully floating exchange rate. During this period, BAM is developing systems to manage exchange rate risks and allowing the market to mature to handle the challenges posed by a floating regime. Since March 2018, BAM has ceased interventions in the foreign exchange market, and fluctuations in the dirham have been minimal (10.9% against the euro). This indicates that economic agents are adapting to the new regime.

The purpose of transitioning the exchange rate regime is to alleviate pressure on foreign exchange reserves and enable the economy to absorb shocks without depleting these reserves. However, speculation following BAM's initial announcement of floating exchange rates in 2017 led to an 18% decline in foreign exchange reserves. The January 2018 reform is a first step, with further flexibility planned.

BAM’s cautious approach to transitioning to a floating exchange rate is commendable but should not be overly prolonged. Experience in other emerging markets shows that intermediate regimes are vulnerable to sudden changes in market sentiment and capital flows. The transitional period must also include structural reforms to attract foreign direct investment and improve the overall investment climate.

6. Conclusion

The transition to inflation targeting is a complex challenge for central banks in the MENA region. While the reform of central bank statutes provides a necessary institutional framework for this regime, it is insufficient on its own to ensure a successful transition.

The effective implementation of an inflation targeting regime requires the fulfillment of various technical and institutional prerequisites, including fiscal discipline, central bank credibility, transparency, and the adoption of flexible exchange rate systems. These elements are crucial to align monetary policy with the overarching objective of price stability while adapting to dynamic economic conditions.

Although the central banks of Egypt, Turkey, and Morocco have made significant progress in strengthening their independence, their paths to inflation targeting reveal distinct challenges. Notably, the adoption of floating exchange rates remains a critical hurdle, particularly for Morocco, where the cautious approach toward greater exchange rate flexibility reflects the country's economic realities. Similarly, Egypt and Turkey have demonstrated that the sequence and coherence of macroeconomic reforms play a pivotal role in building the foundational requirements for inflation targeting.

The experience of these countries highlights that inflation targeting cannot be viewed as a one-size-fits-all strategy. Instead, its success depends on a tailored approach that accounts for each country's economic and financial structure. Moreover, the transition process requires meticulous planning, robust institutional support, and sustained efforts to anchor inflation expectations.

In conclusion, while the inflation targeting regime offers a promising framework for price stability, its adoption by MENA central banks must be accompanied by deliberate and comprehensive reforms. Such a strategy will ensure these central banks can navigate the complexities of inflation targeting and achieve its intended benefits over the long term.

7. Bibliography

- Agénor, P. R., & El Aynaoui, K. (2008, October). The transmission mechanism of monetary policy in Morocco: An analytical framewor. In *Workshop, Monetary Policy and Inflation Targeting* (pp. 24-25).

- Aglietta, M. (1992). L'indépendance des banques centrales/Leçons pour la banque centrale européenne. *Revue d'économie financière*, (22), 37-56.
- Ait Lemqeddem H. (2019). Le régime de change : une revue de littérature, Revue internationales des sciences de gestion.
- Al-Mashat, R. A. (2008). *Monetary policy in Egypt: A retrospective and preparedness for inflation targeting*. Egyptian Center for Economic Studies.
- Alesina, A., & Tabellini, G. (1990). A positive theory of fiscal deficits and government debt. *The review of economic studies*, *57*(3), 403-414.
- Aubert, L., & Eyssartier, D. (2002). Cible de niveau de prix versus cible d'inflation: état des lieux et perspectives. *Revue d'économie financière*, 201-227.
- Boughrara A., Boughzala M.et Moussa H. The effeciency of monetary policy in a changing macroeconomic Environment, ERF Workshop Papers N IT_OCT_WS2
- Boughrara, A. (2009, January). Monetary transmission mechanisms in Morocco and Tunisia. In *Economic Research Forum Working Paper Series* (Vol. 460, pp. 1-29).
- Boughrara, A., Boughzala, M., & Moussa, H. (2007, March). Credibility of inflation targeting in Morocco and Tunisia. In *Eight Mediterranean Social and Political Research Meeting, Florence* (pp. 21-25).
- Epstein, G., & Yeldan, A. E. (2009). Beyond inflation targeting: assessing the impacts and policy alternatives. In *Beyond Inflation Targeting*. Edward Elgar Publishing.
- Ersel, H., & Özatay, F. (2008, October). Inflation Targeting in Turkey. In *Economic Research Forum Working Paper Series* (No. 445, pp. 1-24).
- Friedman, M. (1977). Nobel lecture: inflation and unemployment. *Journal of political economy*, *85*(3), 451-472.
- Friedman, M. (1995). *The role of monetary policy* (pp. 215-231). Macmillan Education UK
- Kydland, F. E., & Prescott, E. C. (1977). Rules rather than discretion: The inconsistency of optimal plans. *Journal of political economy*, *85*(3), 473-491.
- McCallum, B. T. (1995). *New Zealand's monetary policy arrangements: some critical issues*. Reserve Bank of New Zealand.
- Mishkin, F. S. (2008). Can inflation targeting work in emerging market countries?
- Mishkin, F. S., & Posen, A. (1998). Inflation targeting: lessons from four countries.
- Mundell, R. A. (1963). Capital mobility and stabilization policy under fixed and flexible exchange rates. *Canadian Journal of Economics and Political Science/Revue canadienne de economiques et science politique*, *29*(4), 475-485.
- Nordhaus, W. D. (1975). The political business cycle. *The review of economic studies*, *42*(2), 169-190.
- Pollin, J. P. (2002). Pour une stratégie de cible d'inflation dans la zone euro. *Revue d'économie financière*, 39-68.
- Pollin, J. P. (2008). De la crise financière à la récession: une lecture «à la Bernanke». *Revue d'économie financière*, 27-35.
- Scarlata J. (2001). Le ciblage de l'inflation, conférences sur la macroéconomie, institut du FMI.
- Tounsi S. (2006). Les Finances Publiques, Prospective "Maroc 2030", Haut Commissariat au Plan.
- Tounsi S. et al (2012). Inflation Targeting and Choice of Exchange Rate Regime for Developing Countries, *International Research Journal of Finance and Economics.*