

THAILAND'S MONETARY POLICY SINCE THE 1997 CRISIS*

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This paper discusses Thailand's monetary policy frameworks after the 1997 Asian financial crisis with a focus on the present-day inflation targeting regime. Aspects ranging from institutional arrangements, policy objectives, policy targets, policy instruments to policy decision making processes are examined. The paper also presents a brief evaluation of the country's inflation targeting regime up to the end of 2007.

1. Introduction

The 1997 economic crisis affected various aspects of the Thai economy. The repercussions ranged from the problems of non-performing loans and financial institutions' stability, which affected economic growth and internal stability, to capital flight and the depletion of international reserves, which hampered external stability. In the aftermath of the crisis, Thailand has undertaken economic policy reform to resolve past mistakes and to redirect the country to development suitable for the changing economic landscape. In the area of monetary policy, the objective has been reoriented from maintaining exchange rate stability to promote exports to upholding price stability to support sustainable economic growth. Most strikingly, greater emphasis has been put on transparency and good governance in policy implementation.

This paper describes the conduct of monetary policy by the Bank of Thailand since the economic crisis of 1997 with a focus on the present-day inflation targeting regime. Section Two reviews historical developments of the monetary framework in Thailand. Section Three provides details of the Bank of Thailand's inflation-targeting framework. Section Four summarizes Thailand's post-crisis monetary policy stances in relation to economic development. Section Five presents a brief evaluation of the inflation targeting regime. Section Six concludes.

2. Evolution of Thailand's Monetary Policy

The history of central banking in Thailand dates back sixty-some years with the founding of the Bank of Thailand. The current Bank of Thailand (BOT) Act was enacted in 1942 during the Second World War. The BOT Act (1942) specifies the mandate for the Bank of Thailand to do the business of central banking, and the various functions as specified by the Royal

* Discussion paper prepared for Senshu University Institute for Social Science's visit to Bank of Thailand, March 18, 2008. A version of this paper was presented at Kobe University's International Conference on "Monetary Policies in Asia: Inflation Targeting and International Linkages," 17-18 January, 2008. Most of the material in this paper is taken primarily from Ahuja (2003) and Mahuttikarn and Waiquamdee (2006) along with information published on the website of the Bank of Thailand. Anuk Serechetapongse provided able assistance.

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Decree Regulating the Affairs of the Bank of Thailand. The BOT Act (1942) does not make any clear statement about monetary policy but it gives power to the Court of Directors to set the Bank Rate which was the interest rate under the Bank's lender-of-last-resort facility. It also empowers the Bank to buy and sell debt instruments and foreign exchange and to extend credit to financial institutions against eligible collateral. These transactions are, of course, not carried out with a view for profit. Therefore, although monetary policy objectives are not explicitly stipulated in the BOT Act (1942), in practice the Bank has always regarded the maintenance of monetary and financial stability, which is necessary for achieving sustainable economic growth over the long run, as its primary goal.

The development of the monetary policy framework in Thailand can be divided into 3 periods.

2.1 Pegged exchange rate regime (Second World War – June 1997): The value of the baht was initially either pegged to a major currency/gold or to a basket of currencies. The basket regime was adopted from November 1984 until June 1997. During this period, the Exchange Equalization Fund (EEF) would announce and defend the baht value against the U.S. dollar daily, and monetary and financial measures were mainly designed to be in line with the pegged exchange rate regime. These monetary and financial measures had not, as it turned out, been consistent with the fixed exchange rate level; the realization of this shortcoming was obscured under a mirage that is usually associated with a fixed exchange rate regime. As it is now well known, a number of underlying accumulated systemic vulnerabilities together with policy inconsistency led to the demise of the exchange rate regime and the worst economic crisis in Thailand's modern history.

2.2 Monetary targeting regime (July 1997 – May 2000): After the adoption of the floating exchange rate system on 2 July 1997, Thailand received financial assistance from the IMF. The monetary policy objective of the time was solely to regain the confidence lost after the failure of the fixed exchange rate regime by an attempt to reestablish macroeconomic stability. During the IMF program, an implicit monetary targeting regime was adopted. Under this regime, the Bank targeted domestic money supply using the financial programming approach in order to ensure macroeconomic consistency as well as to reach the ultimate objectives of sustainable growth and price stability. The Bank would set the daily and quarterly monetary base targets, on which its daily liquidity management was based. Daily liquidity management was essentially aimed to ensure against excessive volatility in interest rates and liquidity in the financial system.

2.3 Inflation targeting regime (May 2000 – present): After the IMF program, the Bank made an extensive reappraisal of both the domestic and the external environment and concluded that the targeting of money supply would be less effective than the targeting of inflation. The main cause for this change was that the relationship between money supply and output growth was becoming less stable, especially in the period after the major crisis and the uncertainty in credit extension as well as the rapidly changing financial sector landscape

in Thailand. Going back to the exchange rate regime was on the other hand not a feasible option. As for the other alternative, the discretionary monetary policy framework used by the U.S. Federal Reserve Board and the Bank of Japan was deemed inappropriate for the Bank of Thailand, for it would not give the Bank its sorely needed means to regain credibility. The Bank of Thailand, therefore, announced the adoption of inflation targeting as the Bank's new monetary policy framework on May 23, 2000.

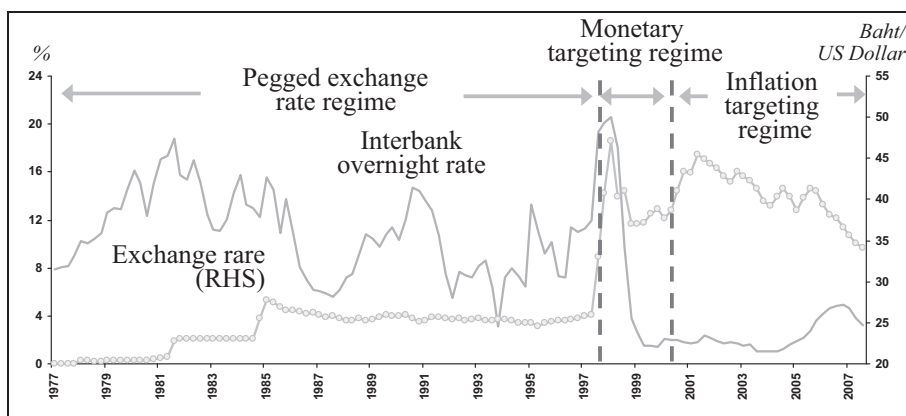


FIGURE 1. Thailand's monetary policy frameworks across time

3. Inflation Targeting in Thailand

Institutional arrangement

The Bank of Thailand decided to launch inflation targeting under the existing legal framework, whereby the Monetary Policy Board (MPB) was first appointed on 5 April 2000 and vested with the power to decide monetary policy by the Governor. The Board, with 9 members, comprised distinguished external experts and the top management of the Bank. The MPB had the authority to set the direction of monetary policy with price stability as the overriding objective, and also to refine the inflation targeting framework to suit the Thai economy.

With the change of the governor of the Bank of Thailand on 30 May 2001, the Bank appointed the Monetary Policy Committee (MPC) to replace the MPB on 9 July 2001. The current MPC comprises 3 senior officials from the Bank of Thailand and 4 distinguished experts from outside.

Monetary policy formulation

The Bank of Thailand's inflation report states succinctly the Bank's monetary policy formulation as "The MPC sets monetary policy in order to attain price stability conducive to sustainable economic growth. The MPC also monitors factors contributing to external stability and financial imbalances."

Price stability is made the foremost objective of Thailand's inflation targeting regime for the following reasons.

1. Price stability serves as a foundation of overall economic stability and an important factor for sustainable growth. This is because the low rate of inflation will preserve the people's purchasing power and thus their wellbeing, supporting the continuity of economic expansion. Furthermore, price stability will help retain the competitiveness of the Thai economy by preventing an excessive increase in domestic prices, costs of production, and wages, which will result in competitive prices for exports. In addition, low and predictable inflation will encourage long-term consumption and investment plans.

2. Price stability can be managed directly by the central bank. In contrast, economic growth can only be influenced by monetary policy in the short run because over the long term economic growth is determined by economic fundamentals, such as technology, capital, and labor, which are not affected by monetary policy. Therefore, the inflation targeting regime stresses heavily on maintaining a stable price level, which will be beneficial for the economy to reach its long-term potential growth.

Although the Bank of Thailand's inflation targeting regime puts great emphasis on price stability, it also takes care of economic growth, external stability, and vulnerability in various sectors. When economic growth is slowing down and requires stimulus, monetary policy can be more accommodative if inflation is not threatening long term economic stability.

In addition, the inflation targeting regime is also consistent with the managed-float exchange rate regime, since the exchange rate is allowed to fluctuate according to market forces without restrictions from monetary policy.

The policy target: core inflation

The MPC decided to exclude raw food and energy prices from Headline inflation in the computation of core inflation, the target for monetary policy. This is because prices of excluded items, such as rice and cereal products, meats, fruits and vegetables, electricity and gasoline are highly volatile. Raw food prices are dependent on weather conditions, whilst energy prices are subject to uncontrollable external factors. Retaining these items in the target measure may lead to perverse monetary policy operation by the MPC. For instance, when the prices of raw food and energy rise, a tight monetary policy to slow aggregate demand will exacerbate the situation in which the purchasing power of the public is already depressed. Despite the exclusion of raw food and energy items, a large part of the information is still retained in the measure of core inflation, accounting for about 76 percent of the data used in constructing the consumer price index. Historical data show that core inflation is less volatile in the short run. Nevertheless, in the long run, the movements of both core and Headline inflation rates closely track one another. Thus, the maintenance of price stability in terms of core inflation will therefore lead to overall price stability.

Target range: 0-3.5 per cent

The inflation rate of Thailand's trading partners averaged about 3.5 percent during the 1990s. Ensuring that Thailand's inflation rate is in line with those of trading partners enhances export

competitiveness, which in turn leads to the stability of the Thai baht. The MPC considers the 0-3.5 percent target range for core inflation to be appropriate for the Thai economy, as it would roughly cover inflation movement over the business cycle. The target band width of 3.5 percent (which is close to the original band width set by New Zealand) will help cushion temporary economic shocks and minimize the need for the MPC to adjust monetary policy frequently, thereby reducing short-term interest rate volatility and promoting financial stability.

Use of quarterly average core inflation as the target

The MPC decided to use the quarterly average of core inflation as the policy target, as monthly figures are volatile. This is consistent with the BOT macroeconomic model (BOTMM), which also employs quarterly data in producing forecasts. If core inflation strays from the target range of 0-3.5 percent, the MPC will have to explain why the target was breached and what measures have to be taken, as well as the amount of time required to bring inflation back within the range.

Policy time horizon

The current BOT inflation targeting framework sets an 8-quarter-ahead time horizon. According to internal studies based on impulse responses of key aggregate variables in the BOTMM to changes in the policy rate, monetary policy has an impact on the economy over 8 quarters, with the effect taking place immediately after the initial policy move and peaking after a year.

Intermediate target: inflation forecast

The inflation forecast is the intermediate policy target. This is advantageous in that all available information on other macroeconomic variables such as the money supply and exchange rate is captured in the forecast inflation.

Operational target: the 1-day repurchase rate

Under the inflation targeting framework, the Bank of Thailand implements its monetary policy by influencing short-term money market rates via the so-called policy rate. The policy rate is used as the operational target to signal the monetary policy stance of the MPC. From May 2000 to January 2007, the policy rate was the 14-day repurchase rate. Effective January 2007, the policy rate has been the 1-day repurchase rate.

Monetary policy instruments¹⁾

The Bank of Thailand uses several channels to implement the MPC's interest rate decisions. Through a variety of monetary policy instruments, money market liquidity is maintained at a level consistent with the policy rate set by the MPC. These instruments can be classified into three categories:

1) More details on this topic can be found on the Bank's website.

1. Reserve requirements

Commercial banks are required to maintain the required reserves on average over a fortnightly period with carry-over provisions using the previous period's average level of commercial banks' deposits/liabilities as the base. The amount of reserves required to be held by each bank is determined as a percentage of its reserve base. The reserve base comprises deposits and short-term (less than 1 year) new foreign borrowings. Currently, the reserve requirements ratio is 6% and the reserveable assets consist of a minimum (1%) non-remunerated deposits at the Bank of Thailand, vault cash (up to 2.5%), and eligible public securities as residual.

2. Open market operations

Open market operations or OMOs are the most actively used instrument to maintain the policy rate, while at the same time ensuring that there is sufficient liquidity in the banking system to meet banks' demand for reserves and settlement balances. The Bank employs four main types of open market operations: (1) repurchase operations, (2) outright purchase and sale of government securities, (3) issuance of the Bank of Thailand bonds, and (4) foreign exchange swaps.

3. Standing facilities

The Bank provides a collateralized standing overnight credit facility called the "End-of-Day Liquidity Window". This allows financial institutions with insufficient liquidity at the end of the day to pledge collateral to obtain liquidity from the Bank. There is no restriction on the amount that each institution can borrow. However, there is an implicit cap on the amount of each institution's eligible collateral which includes government bonds, treasury bills, FIDF bonds, government-guaranteed state enterprises bonds, and BOT bonds. The rate charged on the End-of-Day Liquidity Window is equal to the policy rate plus an adjustable margin presently set at 1.5%.

Though actual borrowings through this means are quite limited, the window has served well as a mechanism to ensure money market stability. It acts as a "safety valve" mechanism, while setting an upper ceiling on overnight market rates.

The decision making process of the monetary policy committee

The MPC meets every 6-8 weeks to assess economic and financial conditions as well as risk factors that may affect future inflation and economic growth. This information is incorporated into the formulation of the monetary policy direction.

In each meeting, the MPC Secretariat presents the latest economic data that cover financial market conditions, fiscal position, international financial environment, and production as well as other factors that may affect the price level, including world commodity prices and US interest rates. The plausible trends of these variables are widely discussed and subsequently incorporated into the inflation and GDP forecasts.

In formulating the monetary policy direction, the MPC considers the various economic indicators and information provided by the Bank of Thailand. The MPC's view on inflationary pressure is derived from the forecast of an econometric model together with each MPC member's judgment.

The BOT Macroeconomic Model (BOTMM)

To assist the MPC in making monetary policy decisions, the Bank of Thailand has developed a macroeconometric forecasting model known as BOTMM. The BOTMM is a system of equations that represents mechanisms in the economy and relationships between economic variables. The model is based on quarterly data from 1993Q1 and covers 4 main economic sectors namely the monetary sector, the real sector, the external sector, and the government sector as well as two satellite models of the corporate and the household sectors. The BOTMM serves three main purposes:

1. The model provides the MPC with information about the prospects for growth and inflation and assists the MPC in its monetary policy decisions.
2. The model aids in evaluating the effects of changes in various factors on the economy, such as the impacts of oil prices, exchange rate variations, and foreign economic conditions.
3. The model provides guidelines for appropriate monetary policy responses.

Exchange rate policy under the inflation targeting regime²⁾

Since July 2 1997, Thailand has adopted a managed-float exchange rate regime, replacing the basket-peg regime which had been in operation since 1984. The value of the baht has since been largely determined by market forces. The Bank of Thailand “manages” the exchange rate by intervening in the foreign exchange market from time to time in order to prevent excessive volatilities in the markets, while fundamental trends are accommodated. In other words, movements in the exchange rates which are in line with changes in economic fundamentals and financial development would only be smoothened and not resisted. There are no specific level targets for the exchange rate.

The managed-float exchange rate regime together with the inflation targeting framework with short-term interest rates as the operating target has worked well for Thailand. The MPC regards the exchange rate as another tool, insofar as it interacts with the short-term policy interest rate, used toward the goal of price stability. The inflation target performs the role of a new nominal anchor for monetary policy while flexibility in exchange rates helps absorb shocks to the economy.

Tackling of financial imbalances

Financial imbalances, which could emerge in the period of economic expansion, may bring about vulnerability to the economic system and impede sustainable growth, leading to abrupt economic changes in the subsequent period. The Monetary Policy Committee, therefore, also considers the following seven areas of macroeconomic vulnerabilities when making monetary policy decisions:

1. Household debts
2. Real estate sector conditions

2) Readers interested in details of the Bank of Thailand's foreign exchange policy and intervention should consult Financial Markets Operations Group, Bank of Thailand (2005).

3. External stability
4. Loans and financial status of commercial banks
5. Financial status of corporate sector
6. Stock market conditions
7. Fiscal position and public debt

Besides examining current indicators of the above imbalances, an Early Warning System has also been developed to monitor macroeconomic vulnerabilities. This system will remit warning signs if the risk of one of these seven aspects could imperil the stability of the overall economy.

Accountability and transparency

Accountability and transparency are two key factors for implementing monetary policy under any framework, as they lead to central bank credibility. Having realized that one of the factors of monetary policy failure pre-1997 had to do with insufficient transparency and accountability, the Bank of Thailand strives towards making its monetary policy conduct transparent and more accountable post-crisis.

The inflation targeting regime is considered more transparent than those in the past in the following aspects.

1. There is a clear policy target which is known to the public.
2. With external members on the Monetary Policy Committee, the monetary policy decisions no longer depend solely on the Bank of Thailand. In addition, these external members, who are experts in various areas such as trade, manufacturing, and finance, serve as representatives from different sectors in employing their knowledge and experience to conduct monetary policy.
3. Clear communications about the operations of the Bank of Thailand are provided. For instance, the Monetary Policy Committee meetings are scheduled in advance.
4. The direction of monetary policy is communicated to the public. The information and the grounds of monetary policy formulation are disclosed in the quarterly Inflation Report. The direction and the rationales of monetary policy decisions are also announced after the Monetary Policy Committee meetings and after the release of the Inflation Report.
5. Information regarding economic and financial conditions is released on the website of the Bank of Thailand, and new information, such as the international investment position, is processed to be used in monetary policy formulation.

TABLE 1. Transparency of past and present monetary policy frameworks

	Pegged Exchange Rate Regime	Monetary Targeting Regime	Inflation Targeting Regime
Intermediate Target	Exchange rate	Money Supply (M2A or M2)	Core inflation forecast
Policy Tool	None	None	1-day Repurchase Rate
Decision-maker	Bank of Thailand	Bank of Thailand	The Monetary Policy Committee (MPC), which consists of 3 senior officials from the Bank of Thailand and 4 distinguished experts from outside
Regular Schedule of Policy Formulation	None	None	The MPC meetings will be held every 6-8 weeks (the schedules will be announced in advance)
Press Conference and Disclosure of Information Regarding Monetary Policy	None	None	-Press conference after the MPC meetings -Information regarding monetary policy is published in the Inflation Report

Source: Mahuttikarn and Waiquamdee (2006)

The new Bank of Thailand Act (2008) and the conduct of monetary policy

Expected to be in effect in the first quarter of 2008, the new BOT Act (2008), which aims to improve operational efficiency and effectiveness of the Bank of Thailand, will strengthen transparency and accountability of Thailand's monetary policy process in several dimensions. Most importantly, the Act will establish a clear and formal framework for monetary policy in Thailand. Under the new Act, the MPC will be charged with legal responsibility in the realm of monetary policy target and exchange rate management policy. The Act will also increase the Bank's operational independence by making it more difficult to fire the Bank's governor, requiring a cabinet decision with a clear underlying reason.

Another significant change from the current BOT Act (1942) is that there will be a mechanism in which the Bank and the government work jointly to formulate an inflation target. The Act requires the MPC to annually set the next-year inflation target with the Minister of Finance for submission to the cabinet for final approval by December of each year. In addition, the MPC must also report to the cabinet every six months on the performance of the inflation-targeting regime

4. Past Monetary Policy Stances

The first few months after the demise of the fixed exchange rate regime were characterized by an extremely tight monetary policy stance. During this period, a high level for interest rates was considered necessary to prevent capital flight. Although the situation did later stabilize, high interest rates had inflicted large damages on the highly leveraged Thai corporate sector and their main creditors, the Thai financial institutions. The severe balance sheet distress of the corporate and the financial sectors subsequently sent the Thai economy into its deepest crisis in its modern history.

To support the battered economy, the Bank of Thailand switched to an accommodative monetary policy stance. Interest rates in the financial system quickly came down in 1998 and the early half of 1999. By the time the inflation targeting regime was adopted in May 2000, short-term money market interest rates were below 2% compared to over 20% at the turn of 1997-1998.

From May 2000 to present, Thailand's monetary policy stances can be divided into 3 periods.

4.1 Accommodative Monetary Policy (May 2000–July 2004)

When inflation targeting was first adopted, Thailand's economic growth continued to remain lackluster from the 1997 crisis, while the price level increased only slightly due to the lack of pressure from domestic demand. Hence, accommodative monetary policy was conducted to support the economic recovery. The policy rate in this period was considered a thirty-year low.

4.2 Tightening Monetary Policy (August 2004–December 2006)

The results of the precedent accommodative monetary policy had raised economic growth to the satisfactory rate. However, the oil prices surge since mid-2004 caused the price level to increase sharply, necessitating the tightening of monetary policy to slow down inflation. Although the inflationary pressure was cost-pushed, the increase in oil prices did not result from supply-side factors alone, but the world's high demand for oil contributed to the increase. Hence, the oil prices at this time could not decrease rapidly as they did in past oil crises in which the hike in oil prices stemmed solely from supply-side factors.

Without an increase in interest rates to slow down the expansion of domestic demand, the higher cost of production due to oil prices could easily be passed on to consumers through the higher prices of goods and services. The persistence of high inflation could further increase the wage level, resulting in a wage-price spiral that could accelerate the pass-through of inflation and therefore shatter economic stability. In addition, domestic demand was still able to intake higher interest burden because the real MLR, compared to the past, was relatively low. In consideration of the above factors, monetary policy was continuously tightened from August 2004 until inflationary pressure started to subside.

4.3 Accommodative Monetary Policy (January 2007–Present)

Monetary policy was once again eased as economic indicators pointed towards a deceleration in domestic demand. In the beginning of 2007, both consumption and investment showed

a continued moderation, and risks to the export sector remained given the prospects of a slowdown in the global economy. On the other hand, despite the expected higher crude oil prices, inflationary pressure remained moderated due partly to subdued domestic demand. Therefore, the monetary policy could be more accommodative to support a recovery in domestic demand. The interest rate was lowered by 1.75 percent in the first half of 2007 before remaining at 3.25 percent per annum throughout the year end when the domestic economy revealed signs of improvement and the risks to inflation increased slightly.

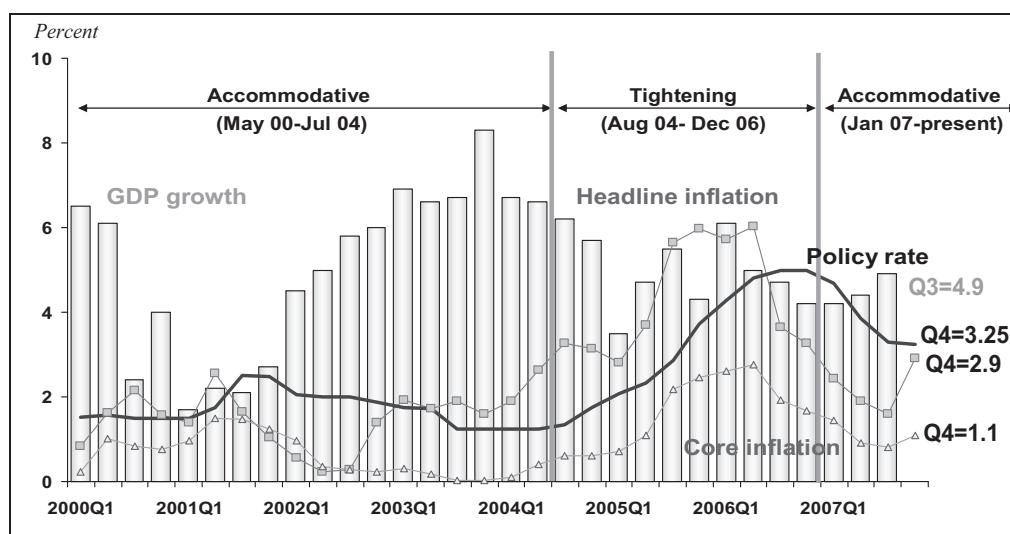


FIGURE 2. Policy rate, inflation, and GDP growth

Source: BOT; MOC; NESDB

5. Regime Evaluation

A quick and dirty way to evaluate an inflation targeting regime is to see whether a central bank can keep inflation within its target range. Of course, the ability of the central bank to do this depends on the controllability of the inflation rate being targeted, the width of the target range, and luck in addition to credibility and competence of the central bank. In any case, Thailand appears to be the only inflation-targeting country that has never missed its inflation target. Figure 3 traces movements of inflation rates in Thailand prior to and after the inception of the inflation targeting regime. From this figure, one can also see that the variability of inflation in Thailand has also been greatly reduced with the adoption of an inflation target. Thus, according to this naïve metric, the regime is highly successful.

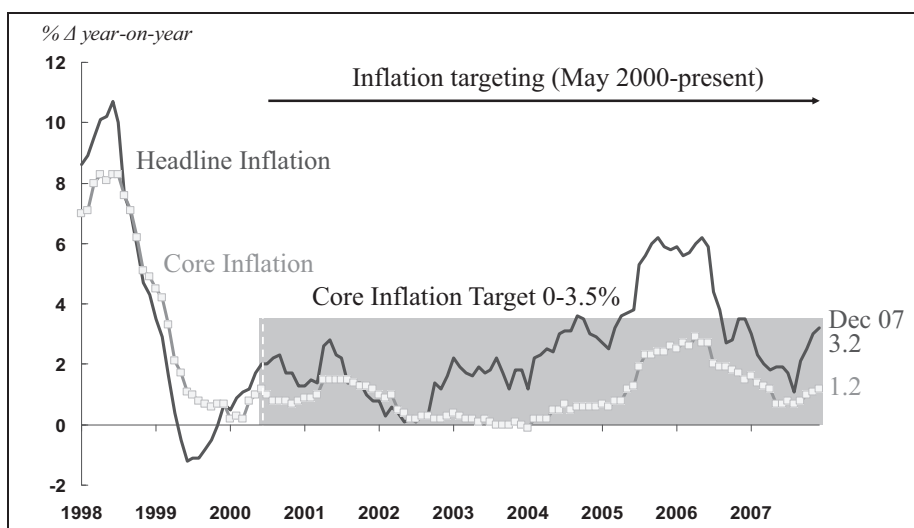


FIGURE 3. Headline and core inflation rates, 1998-2007

Source: MOC

A more sophisticated way of evaluating an inflation-targeting regime is to look at how a central bank anchors expectations of future inflation. In some inflation-targeting countries, inflation expectations can be deduced directly from inflation-indexed bonds. Absent inflation-indexed bonds like in the case of Thailand, one can still nonetheless approximate long-term inflation expectations from the following equation if one takes a view that the expected real policy rate in the long term is stable and that the associated risk premium is relatively small:

$$RP_{t+s} = E_t[\text{real } RP_{t+s}] - E_t[\pi_{t+s}] + \text{risk premium}_{t+s},$$

where RP_{t+s} is an implied forward policy rate at time $t+s$. Figure 4 shows the results of such calculation. One can vividly see that with the adoption of an inflation target, long-term inflation expectations fell dramatically from about 8% to about 3%. It is noteworthy that inflation expectations shot up slightly for a brief period in 2005 when the authorities removed subsidies on retail oil prices. The fact that it came down quite quickly afterward can be regarded as reflecting the credibility of the Bank's inflation target.

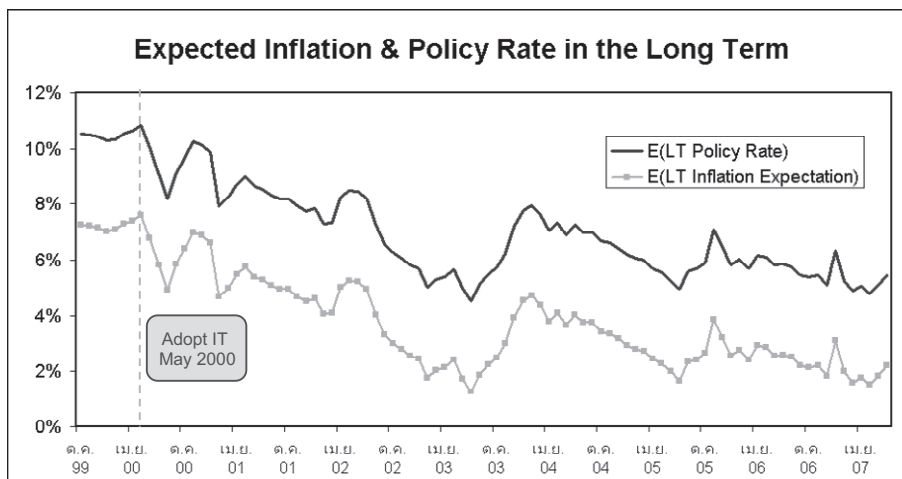


FIGURE 4. Thailand's long-term inflation expectations

Note: Assume stable expected real policy rate and risk premium of 2.5% and 0.75%

Of course, past success does not guarantee future success. The fact that the Bank of Thailand has been able to anchor long-term inflation expectations does not mean that Thailand's inflation-targeting regime is immune to inflationary pressure. A true test for the regime will come when there is a severe tension between inflation stabilization and other objectives, for example, if there is a stagflation threat. Then one will be able to say something more definite about the effectiveness of Thailand's inflation targeting regime.

6. Conclusions

Thailand's post-crisis monetary policy has been transformed to fit with the country's economic landscape and fundamentals. The adoption of an inflation-targeting regime was a result of the Bank's search for an appropriate nominal anchor after the floating of the Thai baht in July 1997. By adopting inflation targeting, the Bank of Thailand's monetary policy conduct puts a strong emphasis on price stability, which supports sustainable economic growth. In conducting monetary policy, transparency and policy communication is underscored to effectively shape the public's expectations and thus enhance the efficiency of policy implementation.

While it may be too early to claim definite success for inflation targeting in Thailand, inflation targeting as a monetary policy framework has served Thailand well over the period. When the Bank of Thailand first adopted an inflation target, the economy was still very much affected by the 1997 crisis. While there are several factors that contributed to the subsequent economic recovery, many believe that monetary policy conduct was indeed among the crucial ones.

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