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PURPOSES
AND FUNCTIONS

Formulation and Implementation of Monetary Policy

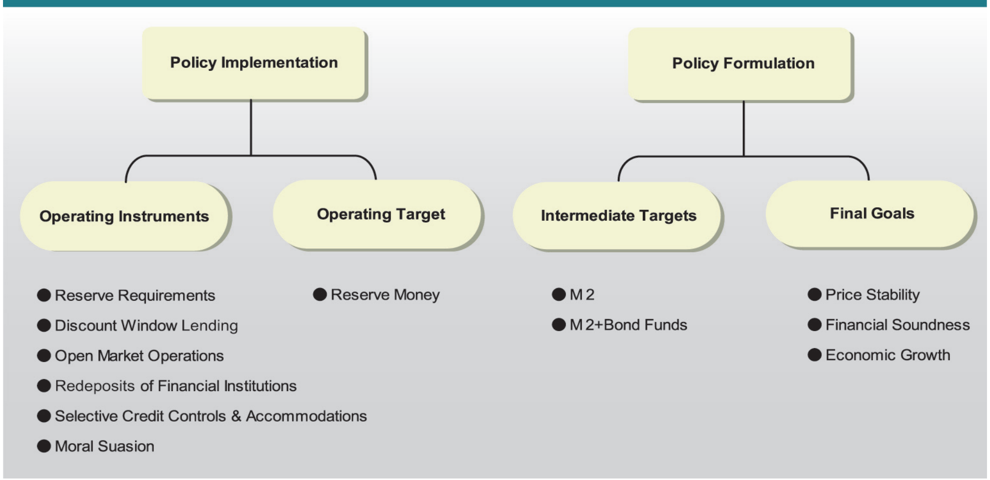
Chapter 3 Formulation and Implementation of Monetary Policy

The goals of monetary policy are spelled out in the *Central Bank of China Act.* How does the CBC gauge whether or not its current operations are consistent with those goals? Will it need to be more restrictive or more accommodative? This chapter discusses the CBC's monetary policy framework, how the CBC determines whether its policy is consistent with its goals, and challenges to the fulfillment of the CBC's goals.

Section 1 Basic Framework of Monetary Policy

Changes in monetary policy affect the economy with considerable time lags. If the CBC waits until policy effects become evident to adjust its policy, it will often miss the best timing to achieve its objectives. Consequently, the CBC pays close attention to some intermediate economic variables such as monetary aggregates. In practice, the CBC adopts a framework where it periodically checks whether operating targets have been achieved in the short run, and in turn measures intermediate targets to assess how effectively monetary policy is being transmitted to achieve its final policy objectives.

Chart 3-1 Basic Framework of Monetary Policy



Since the mid-1980s, the CBC has adopted a framework of monetary targeting. Similar to most other countries, the CBC chose a monetary aggregate to be the intermediate target and reserve money to be the operating target. Since 1992, the CBC has been publishing intermediate targets on a yearly basis. The following two subsections describe these targets in detail.

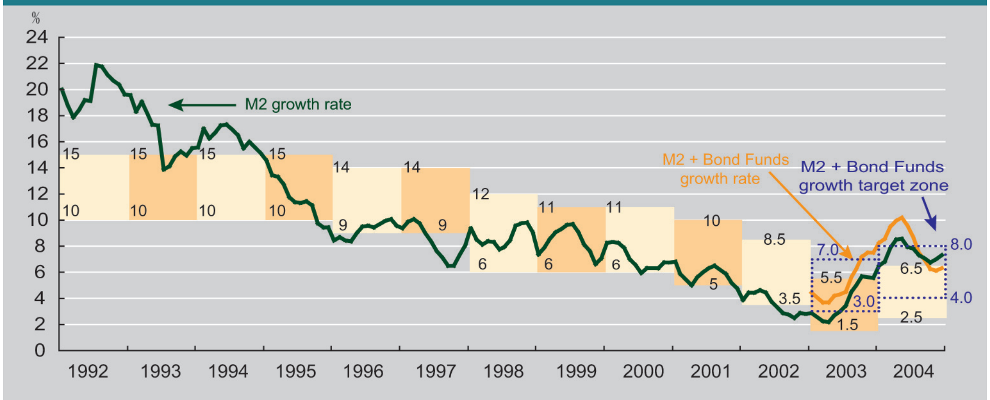
1. Intermediate Targets

For policy formulation, the CBC selects the M2 monetary aggregate as the intermediate target. The staff of the CBC estimate money demand using econometric methods in December of each year to determine the target zone of M2 growth for the coming year. Variables used to estimate money demand include real income, general price levels, the opportunity cost of holding money, indices for financial asset diversification, and the rate of return on foreign currency assets. The CBC then gathers a panel of scholars and experts to discuss the estimation results. The Board of Directors reviews the recommendations and decides on the appropriate annual target zone. The zone set by the Board with related explanations and the proceedings of the panel meeting are released in the *Quarterly Bulletin of the Central Bank of China* to strengthen transparency in the CBC's policymaking process.

The target zone serves as a guide for monetary policy operations throughout the year. Around the middle of the year, the CBC reviews whether the growth of monetary aggregate M2 has stayed within the target zone. If not, it will determine the cause and adopt corrective measures.

The target zones for M2 growth were between 10-15 percent from 1992 to 1995, 9-14 percent in 1996 and 1997, and 6-12 percent in 1998. The range of the zone was widened from five to six percentage points in 1998 in response to the uncertainties caused by the Asian financial crisis. The zone was set at 6-11 percent in 1999 and 2000. In 2001, demand for money decreased as the economy slowed down. The zone was lowered to 5-10 percent. In 2002, it was lowered again to 3.5-8.5 percent. Since 2003, bond funds, which are similar to money market funds in nature, have grown rapidly at the expense of bank deposits. As a result, a new target variable—M2 plus bond funds was added. In 2003, the zones for the dual targeting system were 3-7 percent for the growth of M2 plus bond funds and 1.5-5.5 percent for the growth of M2. In 2004, when the economy picked up, the zones were thus increased to 4-8 percent and 2.5-6.5 percent, respectively.

Chart 3-2 Target Zones and Actual Rates of Monetary Growth



Source：Department of Economic Research, the Central Bank of China.

2. Operating Target

For policy implementation, the CBC chooses reserve money as the operating target for its daily operations. This variable is directly managed through tools of monetary policy and is closely related to the intermediate target.

At the beginning of each month, the CBC determines the monthly target for reserve money. Policy instruments are then used to keep reserve money within the target range. Over the years, the difference between the actual and target levels of reserve money has been small and diminishing.

To accommodate rapidly changing economic and financial conditions, the CBC not only relies on numerical targets for money and credit but also uses a wide range of financial and economic indicators in the formulation and implementation of monetary policy. Financial indicators include short-, medium, and long-term interest rates, exchange rates, excess reserves, bank deposits and credit, monetary aggregates, and the balance of payments. Economic indicators cover imports and exports, industrial production, the rates of economic growth, inflation, and unemployment.

These indicators reflect key macroeconomic conditions in the past. Policy considerations, in contrast, are forward-looking. Therefore, in addition to compiling key statistics, the CBC conducts seminars and surveys. New information derived from these activities expands the CBC's knowledge in current economic and financial conditions and provides useful references to monetary policymaking.

Section 2 Monetary Policy Challenges

The framework of monetary policy described above helps the CBC to determine whether its policy is consistent with its goals. However, factors such as financial globalization, the rise of direct financing, the development of financial derivatives and financial asset securitization increase the complexity of conducting monetary policy and can detract the CBC from fulfilling its goals.

1. Financial Globalization

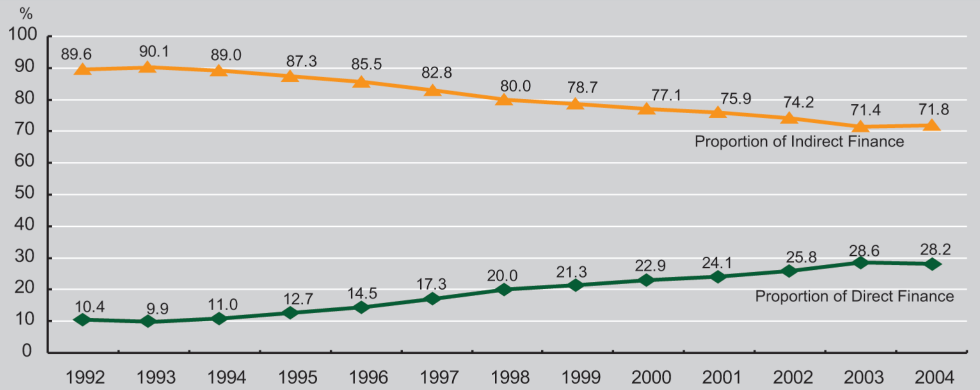
One of the main characteristics of financial globalization is the increase in capital mobility. When cross-border capital flows are large, exchange rates may become unstable and can lead to large swings in prices, financial markets and monetary growth.

Based on the principle of the "impossible trinity" in international economics, an economy cannot simultaneously achieve perfect capital mobility, stable exchange rates, and independence of monetary policy. More specifically, if a central bank allows capital to move freely while maintaining a fixed exchange rate, it will compromise the ability to set its own interest rates, thus losing monetary autonomy. If the central bank seeks a higher degree of monetary independence and allows free movements of capital, maintaining stable exchange rates becomes very difficult. Therefore, each country should choose the most appropriate arrangements based on its financial and economic conditions. In Taiwan's case, since the government has allowed capital to move freely, the CBC, therefore, has to seek a balance between exchange rate stability and the independence of monetary policy based on prevailing financial and economic situations.

2. Rise of Direct Financing

Financial market deregulation measures, such as licensing new securities and bills finance companies, encouraging companies to go public, and speeding up the approval of mutual funds, have helped Taiwan's financial markets to grow in breadth and depth. An increasing number of individuals and enterprises has turned to financial markets for funding and investment. The importance of direct financing has thus gradually increased relative to indirect financing. Commercial banks, as a result, play the dual role of an intermediary and an investor. Their proportion of securities investment has been rising, while that of bank loans has shrunk. This has, in turn, contributed to the decline in M2 growth. The rise of direct financing may undermine the effectiveness of monetary policy, as bank lending is a major channel in the monetary policy transmission mechanism.

Chart 3-3 Direct Finance vs. Indirect Finance



Source：Department of Economic Research, the Central Bank of China.

3. Development of Financial Derivatives

Derivatives make financial arbitrage easier. If this increases the substitutability among assets, it will shorten the time necessary for the CBC's monetary policy to take effect via the relative asset price channel. However, if this results in increases in individuals' and businesses' ability to temporarily hedge against price fluctuations in financial markets, it will lengthen the time required for the CBC's monetary policy to take effect.

Financial derivatives may also increase the burden on monetary policy. When combined with bank deposits, they turn into new financial products, which add ambiguity to the definition of money. In general, the cost of these products is low and the leverage is high. Investors may trade them speculatively, which can become a source of risk and pose serious threats to financial stability.

In sum, the rapid development of financial derivatives brings new challenges to monetary policy. Nevertheless, the CBC may be able to extract valuable information regarding expectations on future interest rates and exchange rate movements from the derivatives markets, which may be beneficial to monetary policy operations.

4. Financial Asset Securitization

Securitization is a process of transforming illiquid financial assets into marketable capital market securities such as mortgage-backed securities, auto loan-backed securities and real estate investment trusts. The process requires well-established credit rating systems, standardization procedures, and credit enhancement mechanisms. In Taiwan, the pertaining law was not endorsed until July 2002, and thus securitization is still in the nascent stage of development.

Securitization may contribute to the operational efficiency of individual financial institutions, but it may also undermine the effectiveness of monetary policy. By improving the banking system's liquidity position, asset securitization may affect the CBC's ability to carry out monetary management. Contractionary monetary policy aimed at curbing liquidity may be limited in an overheated economy since banks can obtain liquidity by way of securitization. In addition, the effectiveness of monetary policy through the bank credit channel may also be negatively affected as securitization may replace part of bank loans as a way for corporate funding.