A closer look at the role and functions of Singapore’s central bank.
Welcome...

... to the Monetary Authority of Singapore (MAS) – Singapore’s central bank. Here at MAS, our mission is to promote the sustained and non-inflationary growth of the economy as well as to foster a sound and progressive financial services sector.

As the central bank of Singapore, our job is to conduct monetary and exchange rate policies. We also manage part of Singapore’s official foreign reserves and issue government securities. In addition, we regulate and supervise the financial sector and play a key role in the development and promotion of Singapore as an international financial centre.

A Short History of MAS

MAS was established under the Monetary Authority of Singapore Act of 1970, and started operations on 1 January 1971. This marked an important milestone in the history of Singapore’s financial and monetary development.

Before this, the various monetary functions normally associated with a central bank had been performed by several government departments and agencies. However, in late 1969, the government decided that the various bodies responsible for monetary management should be brought under one organisation. Not only would this make it more convenient for administrative purposes, it would also give the organisation a greater sense of direction and purpose, and foster the concentration and growth of professional expertise needed in the conduct of monetary affairs.

In April 1977, the Government decided to bring the regulation of the insurance industry under the wing of MAS. The regulatory functions under the Securities Industry Act (1973) were also transferred to MAS in September 1984. Following its merger with the Board of Commissioners of Currency, Singapore on 1 October 2002, MAS is now also responsible for the issuance of currency.
The Main Functions of MAS

Today, the main functions of MAS fall into these five broad areas:

♦ To conduct monetary policy
♦ To issue currency
♦ To manage the official foreign reserves and the issuance of government securities
♦ To supervise the banking, insurance, securities and futures industries
♦ To develop strategies in partnership with the private sector to promote Singapore as an international financial centre.

As the central bank of Singapore, the conduct of monetary policy is one of our main responsibilities. The primary objective is to promote low inflation as the sound basis for sustained economic growth.

Monetary Policy

Why is low inflation important?

Many economists believe that the central bank should focus on low inflation or price stability, in its conduct of monetary policy. This is based on theoretical considerations as well as cross-country experience over the last thirty years, which shows that low inflation is a necessary condition for sustainable economic growth. In an environment of price stability, the prices of goods and services are not distorted by inflation, and can serve as clearer signals and guides so as to allocate resources more efficiently. In addition, such an environment is believed to encourage saving and investment as it prevents the value of assets from being eroded by unexpected inflation. As the Chairman of the US Federal Reserve, Alan Greenspan, defined it:

"For all practical purposes, price stability means that expected changes in the average price level are small enough and gradual enough that they do not materially enter business and household decisions."

How do we conduct monetary policy in Singapore?

Since 1981, Singapore’s monetary policy has been focused on the exchange rate. This is because the exchange rate is the most effective tool in controlling inflation, given the small size and the openness of the Singapore economy.

However, we don’t just look at the Singapore dollar (S$) exchange rate against the US dollar or against any single foreign currency. Instead, we manage the S$ exchange rate against a basket of currencies which comprises the currencies of Singapore’s major trading partners and competitors. We regularly review and
revise the composition of the basket, to take into account any changes in Singapore’s trade patterns. This trade-weighted exchange rate is broadly maintained within an undisclosed target band. How much the trade-weighted S$ is allowed to appreciate or depreciate depends on, among other things, the level of world inflation and domestic price pressures.

We intervene in the foreign exchange market from time to time to prevent excessive fluctuations in the S$ exchange rate, consistent with our exchange rate policy and underlying economic fundamentals.

**Why the Exchange Rate Policy?**

The choice of exchange rate, rather than money supply or interest rate, as the principal tool of monetary policy has been influenced by Singapore’s small size and the high degree of openness to trade and capital flows.

Singapore’s lack of natural resources means that we have to import even the most basic of our daily essentials. In fact, out of every $1 spent in Singapore, 51 cents go to imports*. This in turn implies that domestic prices are very much influenced by foreign prices. Also, because of its small size, Singapore is a price taker in world markets. As such, foreign price increases will lead to higher domestic prices, which can be offset by changes in the exchange rate.

Besides its direct impact on the price of imports, the exchange rate can also affect domestic costs and price pressures. Because of our small domestic market, Singapore’s economic development strategy has always focused on producing exports for the rest of the world. Indeed, exports or external demand makes up about three-quarters of total demand in Singapore. The importance of exports means that the exchange rate can have an important influence on the demand for domestic resources, especially the demand for labour. This implies that a weak exchange rate can lead to the stronger exports and aggregate demand, a tighter labour market and consequently, higher domestic wages and other costs, which may erode the competitiveness of the economy.
In addition, because of Singapore's role as an international financial centre, the Singapore economy is very open to capital flows. As a result, small changes in the difference between domestic and foreign interest rates would lead to large and quick movements of capital. This makes it difficult to target money supply in Singapore, since net flows of funds from abroad can easily affect domestic money supply. Likewise, domestic interest rates are largely determined by foreign rates and market expectations of the movement of the S$. Thus, any attempt by MAS to raise or lower domestic interest rates over a long period of time, would be thwarted by a shift of funds into or out of Singapore. In other words, given the context of free capital mobility, the choice of the exchange rate as the focus of monetary policy implies that we cannot control domestic interest rates or money supply at the same time.

* According to the 1995 Input-Output Tables published by the Department of Statistics.

Besides maintaining low inflation for sustained economic growth, central banks are also responsible for ensuring stability in the financial system. In fact, in many countries, concern for financial stability was the original reason behind the formation of the central bank. For example, the Federal Reserve System in the US was established in 1913, in response to the banking crisis of 1907.

Why is financial stability so important?
A stable financial sector is crucial to the health of the overall economy because it is closely connected to other sectors of the economy through its role of providing credit.

When large-scale failures occur among financial institutions, the supply of credit dries up, which in turn forces other industries to cut back on their activities due to the lack of funding. Also, because of the susceptibility of the financial sector to crises of public confidence, a problem that hits one part of the financial sector can quickly spread to the rest of the sector and then to the economy more widely.

Central banks like MAS thus play a critical role in safeguarding financial sector stability. One key way in which MAS accomplishes this is by enhanced financial surveillance and conducting periodic assessment of the stability of the financial system. In addition, when a financial disturbance does take place, MAS can ameliorate its effects on financial markets and the economy by providing sufficient funds or liquidity to the system via its money market operations.
Financial Sector Supervision

What is our approach to supervision and regulation?

The financial industry worldwide is changing rapidly. Falling regulatory barriers, advances in information technology and a wave of mergers among financial institutions are integrating financial markets. Financial activities are consolidating in a few centres and competition is intense. To thrive as a financial hub in this environment, we need to foster an environment to quicken the pace of market development and innovation while maintaining financial stability.

Our approach to regulation and supervision focuses on systemic risk rather than individual transactions. Regulation refers to the setting of prudential rules and guidelines for financial institutions, while supervision means the more general monitoring of the behaviour of financial institutions, including compliance with rules and regulations.

Since 1997, we have been shifting our emphasis from a “one-size-fits-all” regulation to a risk focused supervisory approach, whereby we can give stronger institutions the flexibility to develop and innovate while maintaining stricter controls on weaker ones.

As a regulator, we will continue to set minimum requirements on capital and liquidity that institutions should meet as prudential safeguards, while at the same time, aligning our policies with international best practices. To ensure that our regulatory framework strikes the right balance between prudential regulation and market development, we also consult widely with industry associations, market participants and professionals.

As a supervisor, we make sure that institutions operate within the rules and guidelines that we have established. We do this mainly through field inspections, examination of statistical returns, accounts, reports by external and internal auditors, and exchanges of information with other regulators. In addition, we are strengthening our oversight of financial institutions by promoting higher disclosure and transparency standards. This will facilitate a greater degree of market scrutiny and discipline on the conduct of their activities.
Principles of Good Supervision

The key principles guiding MAS’ supervisory approach are characterised as risk-focused, stakeholder-reliant, disclosure-based and business-friendly.

Risk-focused
One of the key principles is an emphasis on risk-focused supervision rather than one-size-fits-all regulation. Under this approach, MAS evaluates the risk profile of an institution, taking into account the quality of its internal risk management systems and processes. This allows better-managed institutions greater flexibility in conducting their businesses, while retaining tighter restrictions on weaker ones. MAS also assesses the adequacy of an institution’s risk management in the context of its risk and business profiles. Under MAS’ integrated supervisory approach, financial institutions are evaluated on a consolidated group basis across industry (such as banking, insurance and securities) and location (local and overseas).

MAS allocates supervisory resources among financial institutions according to the potential impact they would have on Singapore’s financial system, economy and reputation in the event of a significant mishap, as well as the likelihood of such mishaps occurring. While we cannot prevent the failure of any institution, we seek to reduce the risk of failure through increased supervision, and limit the impact of a failure should it occur.

Stakeholder-reliant
MAS seeks to reinforce the responsibility of the board and management of the financial institution to deal fairly with customers, ensure compliance with regulatory standards, and maintain adequate oversight of its business activities. MAS also works closely with other relevant stakeholders (e.g. shareholders, creditors, depositors, policyholders, etc.), professionals (e.g. external/ internal auditors and credit rating agencies) and industry associations in the financial sector to complement our supervision of financial institutions. In addition, we collaborate with other agencies, such as the Council on Corporate Disclosure and Governance, to strengthen corporate governance and disclosure standards.
Disclosure-based
MAS’ disclosure-based approach involves putting in place a regulatory framework that facilitates timely, accurate and meaningful disclosure of material information by financial institutions, which allows consumers to make well-informed financial decisions. Such a disclosure-based regime encourages innovation and facilitates the development of a more sophisticated pool of consumers. In this regard, MAS also works in partnership with other public sector agencies and industry bodies to empower consumers to assess for themselves the risks of their own financial decisions.

Business-friendly
In terms of being business-friendly, MAS seeks to undertake supervision in a way that does not unnecessarily impair the competitiveness and dynamism of individual institutions and Singapore’s financial sector. We also adopt a consultative approach to regulating the industry, by actively seeking feedback from market participants and the wider public. This helps us to develop regulations that take into account market realities and industry practices, as well as pre-empt implementation problems and foster better industry understanding. Ultimately, it is the combined efforts of MAS and the industry that contribute to financial stability and resilience while promoting enterprise and innovation.

Oversight of Payment Systems
A sound and efficient payment system infrastructure is another important ingredient in ensuring the stability of the financial sector. In this regard, MAS has a role in overseeing payments-related infrastructure in Singapore.

What is a payment system?
A payment system is a system that facilitates the circulation of money and settlement of economic transactions. In Singapore, examples of payment systems include high value payment systems such as the MAS Electronic Payment System, and retail payment systems such as the cheque and Interbank GIRO clearing systems, and ATM networks. Payment systems are therefore critical pipelines through which all financial transactions in the economy flow, and an efficient payment system infrastructure is crucial to the smooth functioning of the economy.
The MAS Electronic Payment System

In addition to the oversight responsibilities, MAS also operates a Real Time Gross Settlement System called the MAS Electronic Payment System (MEPS). Like most other countries around the world, commercial banks in Singapore have to maintain cash accounts with the central bank. There are two main reasons for this. The first is to satisfy the statutory reserve requirement, which means that a percentage of the banks' deposit liabilities has to be placed in cash with the MAS as a prudential safeguard. The second reason is so that the banks can settle their transactions with one another. In other words, banks use their accounts at MAS to settle the daily differences arising between themselves in the clearing system – such as in the exchange of cheques written by each other's customers, or of credits moving from one bank to another. This is done via MEPS.

Why a Real Time Gross Settlement System?
Previously, MAS operated an end-of-day deferred net settlement system. This meant that payment instructions were accumulated throughout the day, and the net obligation for each bank was computed and settled only at the end of the day. This could potentially give rise to systemic risk. For example, if just one bank becomes insolvent during the course of the day and cannot meet its obligations, the entire network of criss-crossing payments accumulated during the day may have to be unwound, and the financial system may be forced to shut down.

In July 1998, MAS introduced a real-time gross settlement (RTGS) system called the MAS Electronic Payment System (MEPS). Under a RTGS system, systemic risk is reduced significantly. Each payment instruction is processed and settled individually and continually throughout the day. Once settled, the payment is final and irrevocable. This minimises the risk of systemic failure resulting from a payment default by a single bank.

MEPS also allows banks to manage transactions and liquidity problems more efficiently. Finally, it opens up the possibility for Singapore to participate in cross-border electronic payments and settlements via linkages to other financial centres around the world.
Banker & Financial Agent of the Government

MAS acts as the banker and financial agent of the Government.

As banker to the Singapore Government, we perform roughly the same functions as a commercial bank ordinarily performs for its customers. In other words, we provide the Government with current account and deposit facilities, and act as its agent in official transactions with international financial institutions, such as the International Monetary Fund, the World Bank, and the Asian Development Bank.

As financial agent of the Government, we manage part of Singapore’s official financial reserves, as well as its public debt, and are responsible for issuing government securities.

Why does the Government need to issue bonds?

In general, governments borrow money to finance their budget deficits through the issuance of treasury bills and bonds. In Singapore however, high economic growth and fiscal rectitude have freed monetary policy of the need to finance government deficits by borrowing. In fact, since 1995, Singapore’s external debt has been zero. Nevertheless, MAS has recently stepped up the issuance of government securities, with the aim of encouraging the development of an active domestic bond market. In particular, the issuance of long-term government securities is necessary to establish a benchmark yield curve, which would allow corporate bond issues to be adequately priced.

Promotion & Development of the Financial Sector

In addition to supervising and regulating financial institutions, MAS is also responsible for the development and promotion of Singapore as an international financial centre. Since 1971, we have implemented various policies to stimulate the growth of Singapore as a financial centre. These policy measures included the abolition of all exchange controls, development of the Asian Dollar Market, and a liberal yet selective policy for the entry of international institutions to engage in offshore banking activities.

In line with the recent financial sector reforms, we have adopted a more proactive role in promoting Singapore as a world-class financial centre. To focus our efforts in doing so, a new department was set up and dedicated to the promotion of the financial sector. We have also been consulting the industry actively so as to keep abreast of new developments and fine-tune our policies, and are taking a more strategic approach in helping to develop the various financial industries and markets.
What About the Issue of Currency?

The task of issuing currency in Singapore has historically been performed by the Board of Commissioners of Currency, Singapore (BCCS). The BCCS was set up shortly after independence in 1967 to implement the currency board system.

Under the original currency board system, the BCCS stood ready to issue Singapore currency notes and coins on demand, in exchange for US dollars, gold or any other convertible currency at a fixed exchange rate. However, since the Singapore dollar was floated in 1973, Singapore has progressively evolved away from the system of a fixed exchange rate, and the currency board system in Singapore was fundamentally modified. The only feature of the currency board system that has been retained is the full backing of currency-in-circulation, where the face value of all currency issued must be at least 100% backed by external assets in the Currency Fund. This is required under the Currency Act, and has contributed to confidence in the Singapore dollar.

In October 2002, the BCCS was merged with MAS to consolidate monetary functions under MAS. There has been no change in the way the domestic currency is managed. The Singapore dollar notes and coins currently in circulation will continue to be fully backed by the Currency Fund.

From a broader perspective, this merger will enable MAS to rationalise common functions and realise efficiency gains, without compromising the overriding objective of managing the currency and maintaining confidence in the Singapore dollar.

The Structure of MAS

People in Charge

MAS is governed by a Board of Directors, which is made up of the Chairman, Deputy Chairman, Managing Director, and five other members. The Chief Executive is the Managing Director, who is entrusted with the Authority’s day-to-day operations and administration. He is assisted by a Deputy Managing Director and a team of Assistant Managing Directors, Executive Directors and Directors.
Organisation Structure

Economic Research, Monetary Policy, & Reserve Management

The Economic Policy Department (EPD) formulates monetary policy appropriate for sustained and non-inflationary economic growth in Singapore. It conducts surveillance of the domestic economy, and provides analyses and forecasts to support policy decisions. In addition, EPD undertakes in-depth studies on issues faced by the Singapore economy.

The Macroeconomic Surveillance Department (MSD) conducts surveillance of the financial system to identify emerging trends and potential vulnerabilities, and closely monitors and evaluates developments in G-3 and regional economies, as well as international financial markets. It works closely with MAS' supervisory departments to ensure that both macro- and micro-prudential perspectives are brought to bear on financial stability issues.

The Reserve and Monetary Management Department (RMD) has two distinct functions. The Monetary Management Division (MMD) in RMD implements Singapore's monetary policy by managing the exchange rate within its targeted policy band, and conducts money market operations to manage liquidity in the banking system. MMD is also responsible for issuing Singapore Government Securities (SGS), and fostering the development of the SGS market. RMD is also responsible for investing MAS' foreign reserves. It operates in major bond and currency markets globally, and works with external fund managers. MAS' equity investments are independently managed by the external fund managers on a discretionary basis.

Development & External Relations

The External Department (EXT) shapes the development of MAS' policies on international monetary and financial issues, enabling MAS to play an active role in international financial fora. Working closely with other Singapore government agencies, EXT promotes cooperation with other central banks, finance ministries and international financial institutions. EXT is also responsible for external communications, including media relations.

The Financial Centre Development Department (FDD) is responsible for developing and promoting Singapore as an international financial centre. It identifies and develops new financial activities and capabilities that contribute to the strategic importance and size of the financial centre. It is also responsible for promoting Singapore to financial players. FDD’s other thrust is to develop a world-class financial sector workforce in Singapore.
Market Conduct

The Market and Business Conduct Department (MCD) formulates and implements market and business conduct policies to ensure fair dealing between financial institutions and depositors, investors, and policyholders. It is responsible for formulating MAS’ positions on competition issues, corporate governance standards, and accounting practices, as well as administering the Financial Advisers Act and licensing insurance brokers under the Insurance Act. It is also responsible for financial education.

The Securities and Futures Supervision Department (SFD) has supervisory responsibility for capital markets and administers the Securities and Futures Act. It regulates the origination and trading of securities and their derivatives products, supervises capital markets intermediaries, regulates prospectuses and collective investment schemes, and oversees takeover issues. It has regulatory oversight of securities and futures exchanges, and clearing houses. It also enforces the civil penalty regime for market misconduct.

Prudential Supervision

The Banking Supervision Department (BD) and the Complex Institutions Supervision Department (CI) are responsible for the licensing and supervision of banks, merchant banks and finance companies. CI supervises the local financial groups it is responsible for on a whole of group basis across their banking, insurance and securities activities. The two departments help foster the stability and strength of Singapore's financial system by monitoring the safety and soundness of the banks and other institutions that they supervise, and actively promoting the adoption of international best practices in corporate governance and risk management. CI works with other departments in MAS to develop integrated supervisory methodologies for the consolidated supervision of the financial groups for which it is responsible.

The Insurance Supervision Department (ID) administers the Insurance Act and has as its primary objective the protection of policyholders' interests. ID adopts a risk-focused approach in the prudential and market conduct supervision of insurance companies. ID carries out its responsibilities by way of both on and off-site supervision, and works with foreign supervisors as part of a holistic supervisory approach. In its standards development role, ID works closely with industry associations to promote the adoption of best practices by the industry.

The Prudential Policy Department (PPD) is responsible for formulating capital and prudential policies for banks, insurance companies and securities firms to promote a sound yet dynamic financial sector. It works to achieve a more harmonised regulatory framework that will minimise gaps and arbitrage, and facilitate a more integrated risk-based supervisory approach.
The **Specialist Risk Supervision Department (SRD)** provides the financial and technology risk expertise necessary for MAS' supervisory and regulatory functions, and assessment of individual institutions and system-wide risks. SRD monitors developments and trends in the sector, and seeks effective and efficient approaches to deal with the risks identified. SRD also oversees payment infrastructures with the objective of fostering their stability and efficiency.

**Currency and Corporate Resource**

The **Corporate Services Department (CSD)** oversees logistics and administration. It manages and provides administrative support for events hosted or organised by MAS. It is also responsible for tenancy, security, and property and building-related matters.

Since 1 October 2002, the Board of Commissioners of Currency, Singapore (BCCS) has been fully integrated with MAS as the **Currency Department (CD)** which is responsible for currency issuance.

The **Finance Department (FD)** is responsible for managing MAS' financial resources. Its functions include the control and budgeting of MAS' assets/liabilities, and the accounting, settlement, safe-custody, risk management and performance evaluation of MAS' global investments. FD also administers the issuance of Singapore Government Securities (SGS) and the MAS Electronic Payment System (MEPS), as well as maintains the current accounts of banks, international monetary organisations and financial institutions. The department also provides accounting and financial services to Financial Sector Development Fund (FSDF).

The **Human Resource Department (HRD)** formulates and implements MAS' human resource management policies. It is responsible for attracting talent for the organisation, managing and retaining staff through a fair performance appraisal system and a competitive remuneration package, as well as developing talent through needs-based training and development programmes.

The **Information Technology Department (ITD)** promotes the strategic use of technology and provides IT services to the organisation. ITD also manages two nation-wide financial networks, namely the MASNET and the MAS Electronic Payment System (MEPS). The networks provide the infrastructure for efficient electronic communication and collaboration in the financial sector, and minimise payment risks for Singapore's banking system, respectively.

**Internal Audit**

The **Internal Audit Department (IAD)** conducts financial, operational and information systems audits of MAS' operations. IAD performs independent
checks for compliance with policies, guidelines, laws and regulations, and evaluates the reliability of financial records, and the security and integrity of information systems in MAS. In addition to recommending improvements in internal efficiencies, IAD also works with other departments to review the controls in new systems and business processes.

Managing Director’s Office

The General Counsel’s Office (GCO) oversees all legal matters in MAS. This encompasses advising on various issues that emanate from the functions of MAS as a central bank and financial regulator, assisting other MAS departments in the development and formulation of regulatory and supervisory frameworks, and the drafting of statutory and regulatory instruments, contracts, agreements and other legal documents.

The Strategic Planning Office (SPO) advances the collective formulation of corporate priorities, strategies and initiatives that best serve MAS’ objectives. The Office plays a central role in driving the strategic and corporate planning processes in MAS, and serves as the secretariat to the Board and management fora. It also seeks to build a more cohesive and integrated organisation through fostering a conducive culture for organisational effectiveness.
The Economics Explorer Series aims to provide an accessible introduction to a broad selection of economic issues, ranging from monetary policy to trade to inflation. It is for anyone interested in taking a closer look at the economic issues affecting Singapore.

#1 The Monetary Authority of Singapore

#2 Monetary Policy and the Economy

#3 Inflation

All issues of the Economics Explorer Series can be downloaded from the MAS website at www.mas.gov.sg.