# Reserves Management

The Exchange Fund experienced its most difficult investment year since the establishment of the Hong Kong Monetary Authority in 1993. Extreme market volatility and the significant downward adjustment of asset prices had an impact on the Fund, which recorded a negative investment return of 5.6% in 2008.

## THE EXCHANGE FUND

The Fund's primary objective, as laid down in the Exchange Fund Ordinance, is to affect, either directly or indirectly, the exchange value of the currency of Hong Kong. It can also be used to maintain the stability and integrity of Hong Kong's monetary and financial systems to help maintain Hong Kong as an international financial centre. The Exchange Fund is under the control of the Financial Secretary and may be invested in any securities or other assets he considers appropriate, after consulting the Exchange Fund Advisory Committee (EFAC).

## MANAGEMENT OF THE EXCHANGE FUND

### Investment objectives and benchmark

EFAC has set the following investment objectives for the Exchange Fund:

(a) to preserve capital;

(b) to ensure that the entire Monetary Base at all times will be fully backed by highly liquid US dollar-denominated securities;

(c) to ensure that sufficient liquidity will be available for the purposes of maintaining monetary and financial stability; and

(d) subject to (a) – (c), to achieve an investment return that will preserve the long-term purchasing power of the Fund.

These objectives take full account of the statutory purposes of the Exchange Fund, and are incorporated into the investment benchmark of the Fund, which guides its long-term strategic asset allocation. Currently the bond-to-equity ratio of the benchmark is 75:25. In terms of currency mix, 86% of the benchmark is allocated to the US dollar and other currencies (which include the Hong Kong dollar) and the remaining 14% to other currencies (which include mainly the euro, yen and sterling).

The Exchange Fund is managed as two distinct portfolios — the Backing Portfolio and the Investment Portfolio. The Backing Portfolio holds highly liquid US dollar-denominated securities to provide full backing to the Monetary Base as required under the Currency Board arrangements. The Investment Portfolio is invested primarily in the bond and equity markets of the member countries of the Organisation for Economic Co-operation and Development to preserve the value and long-term purchasing power of the assets.

In 2007 a Strategic Portfolio was established to hold shares in Hong Kong Exchanges and Clearing Limited acquired by the Government for the account of the Exchange Fund for strategic purposes. Because of the unique nature of this Portfolio, it is not included in the assessment of the investment performance of the Exchange Fund.

### The investment process

The investment process of the Exchange Fund is underpinned by decisions on two types of asset allocation — the strategic asset allocation and the tactical asset allocation. The strategic asset allocation, reflected in the investment benchmark, represents the long-term optimal asset allocation given the investment objectives of the Exchange Fund. Guided by the strategic allocation, assets are tactically allocated in an attempt to outperform the benchmark and thereby achieve a positive active return, or alpha.[1] This often means the actual allocation is different from the benchmark, or strategic, allocation. The differences between the actual and the benchmark allocations are known as "tactical deviations". While the benchmark and the limits for tactical deviations are determined by the Financial Secretary in consultation with EFAC, tactical decisions are made by the HKMA under delegated authority. Within the limits allowed for tactical deviation, portfolio managers may take positions to take advantage of short-term market movements.

[1] The benchmark return for any accounting period is the return achieved by the benchmark portfolio during that period, assuming that the benchmark allocation of assets is strictly followed throughout the period without deviation. The benchmark return can therefore only be calculated after the end of an accounting period.

## Investment management

### Direct Investment

HKMA staff in the Reserves Management Department directly manage the investment of about 80% of the Exchange Fund, which includes the entire Backing Portfolio and part of the Investment Portfolio. This part of the Investment Portfolio is a multi-currency portfolio invested in the major fixed-income markets. The staff also manage positions in financial derivatives to implement investment strategies or control the Fund's risks.

### Use of external managers

In addition to managing assets internally, the HKMA employs external fund managers based in over a dozen international financial centres to manage about 20% of the Exchange Fund's assets, including all of its equity portfolios and other specialised assets. The purpose of appointing external managers is to tap the best investment expertise available in the market, capturing a diverse mix of investment styles, and transfer knowledge and information from the market to in-house professionals.

Expenditures relating to the use of external managers include management and custodian fees, transaction costs, withholding tax and other taxes. They are determined by such things as market factors, and fluctuate from year to year. Details of these expenditure items, including those related to portfolios managed internally by the HKMA, can be found in the Notes to the Financial Statements of the Exchange Fund.

### Risk management and compliance

The high volatility of financial markets in recent years has highlighted the importance of risk management. Stringent controls and investment guidelines have been established for both internally and externally managed portfolios, and compliance with guidelines and regulations is closely monitored. Risk-control tools are deployed to assess market risks under both normal and adverse market conditions. The HKMA also conducts detailed performance attribution analyses to make the best use of the investment skills of both internal and external managers.

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## PERFORMANCE OF THE EXCHANGE FUND

### The financial markets in 2008

The world's financial markets experienced a turbulent and perilous year with the financial system coming close to collapse amid reports of huge losses, failing financial institutions and the loss of faith and trust between borrowers and lenders that temporarily paralysed the intermediary function of banks in the last quarter of 2008. The financial crisis began with the weakening US housing market resulting in steep losses for many financial institutions engaged in mortgage lending. This later spilled over to related markets where mortgage debts were restructured into collateral debt obligations (CDOs), with other instruments such as credit default swaps (CDSs) adding complexity. When major financial institutions started to report big losses from their mortgage-related investments, investors and regulators realised that the scope and magnitude of the damage was far beyond their original estimates, and the contagion appeared to be far more extensive than just the US housing market and the financial sector.

Investor confidence was seriously affected by the forced bankruptcy of a number of major financial institutions in the US and Europe, and, perhaps as an unwanted side-effect of the globalisation of financial markets, the contagion spread to almost every part of the globe. Hedge funds and other highly leveraged traders that had invested heavily in CDOs and CDSs were among the worst-hit investor group, suffering large investment losses, client redemption pressure, escalating funding costs and sharply reduced availability of credit.

In an effort to salvage the situation, central banks and authorities in the major economies launched a series of unprecedented measures to support the global financial

system. These included liquidity and capital support to both individual financial and non-financial institutions, as well as guarantees for bank deposits and bank debts. While these measures helped stabilise the financial sector, their effectiveness for the real economy may have been handicapped by the reduced capability of banks to act as financial intermediaries as they strove to shrink their balance sheets and reduce excess lending.

As a result, major economies suffered their first contraction in GDP growth in years as business sentiment and consumer confidence plummeted. Corporate bankruptcy and unemployment rates rose sharply in the second half of 2008, while inflation worries faded as commodity prices dropped significantly on weak demand. Ironically, deflation became the dominating market theme in the second half of the year. The impact of the financial crisis on smaller and developing economies such as Iceland, Korea and Russia was even more severe.

Flight-to-quality trades, risk aversion and balance sheet de-leveraging were the main driving forces in financial markets in 2008, especially in the final quarter. The collective action of investors rushing to off-load risky assets resulted in sharp rate movements and extremely high volatility, increasing the risk of overshooting during the correction process. Major equity markets experienced one of the worst slumps in history with their indices dropping around 30-50% over the year, more than half of which occurred in October. Capital seeking a safe haven flooded the sovereign bond market, which, coupled with the aggressive easing by major central banks, drove government bond yields to historical lows in the fourth quarter. As many investors unwound their previously established carry-trade positions, the sudden increase in demand for US dollars and yen, which were the funding currencies in most of these trades, reversed their weakening trends which had been noticeable since 2001.

The performances of major currency, bond and equity markets in 2008 are shown in Table 1.

**Table 1 2008 market returns**

| | |
|---|---|
| **Currencies** | |
| Appreciation (+)/depreciation (-) against US dollar | |
| Euro | -4.9% |
| Yen | +23.2% |
| **Bond markets** | |
| Relevant US Government Bond (1-3 years) Index | +6.8% |
| **Equity markets** | |
| Standard & Poor's 500 Index | -38.5% |
| Hang Seng Index | -48.3% |

## The Exchange Fund's performance

The Exchange Fund recorded an investment loss of $75 billion in 2008, comprising losses of $77.9 billion and $73.1 billion from Hong Kong and foreign equities respectively, a $12.4 billion loss from foreign exchange revaluation, and a valuation gain of $88.4 billion from bond investments. The valuation loss, net of dividend income, of the Strategic Portfolio amounted to $8.9 billion, making a total investment loss of $83.9 billion. The investment loss after excluding the Strategic Portfolio represented a negative investment return of 5.6%, which was 189 basis points below the return of the investment benchmark for the year.

Table 2 shows the annualised investment return of the Exchange Fund compared with the investment benchmark and domestic inflation from 1994 to 2008. The annual return of the Exchange Fund from 1994 to 2008 is set out in Chart 1. Since 1994, the Exchange Fund has generated a compounded annual return of 6.1%, which compares favourably with the compounded annual inflation rate of 1.4% over the period. The comparison of the investment return of the Exchange Fund against the benchmark return from 1999 to 2008 is shown in Chart 2. Table 3 shows the currency mix of the Fund's assets on 31 December 2008.

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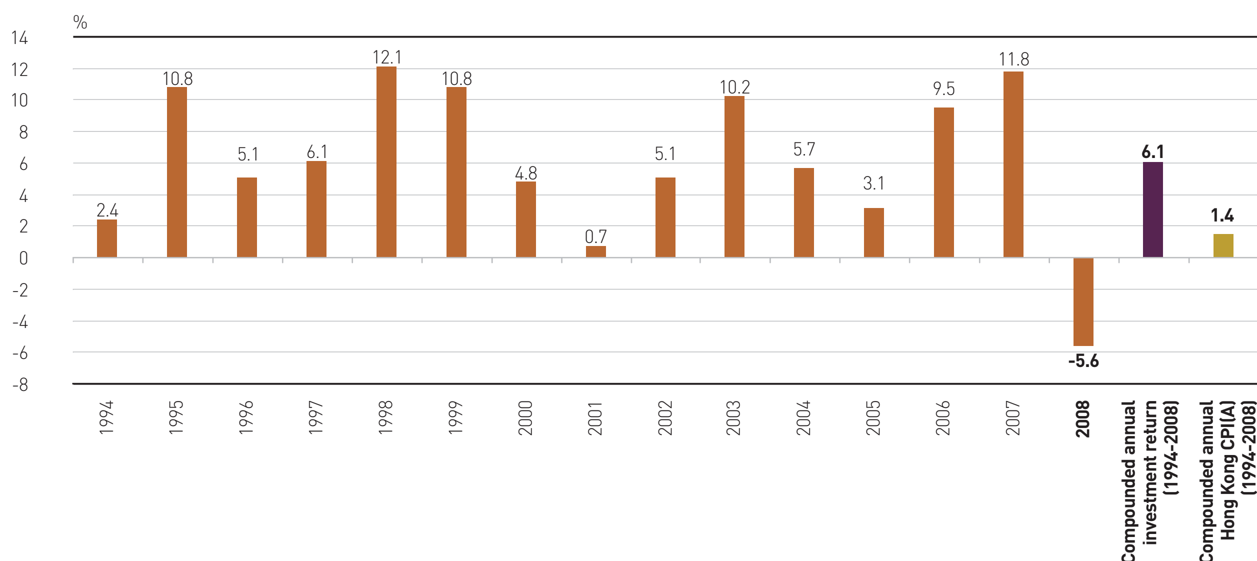
**Table 2** **Gross investment return of the Exchange Fund in Hong Kong dollar terms** [1]

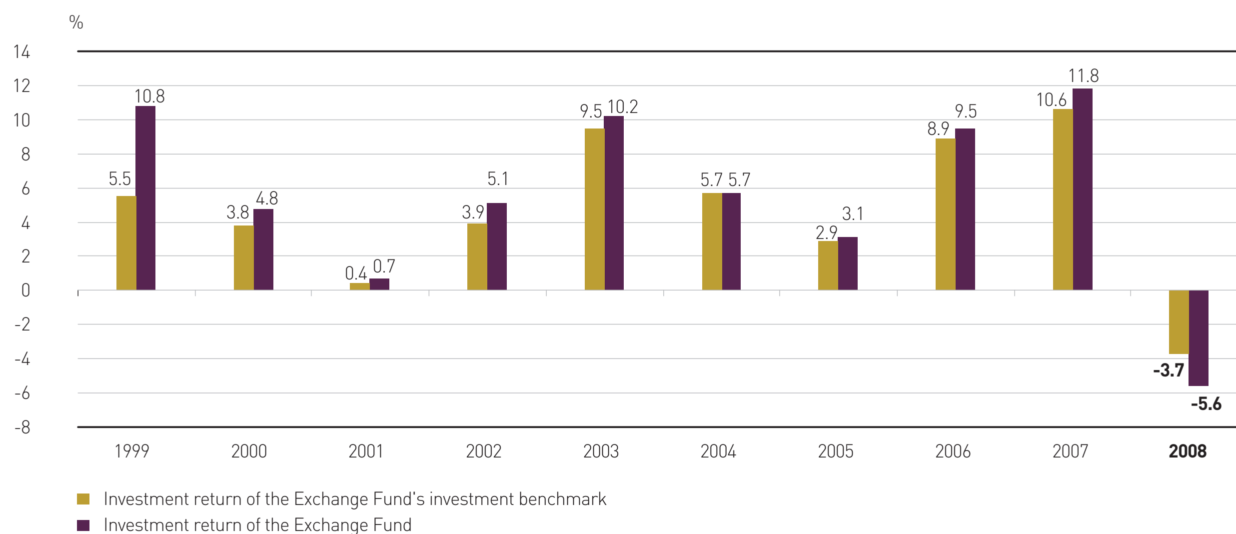
| | Return on total assets | Return on investment benchmark [2] | Alpha | CPI(A) [3] |
|---|---|---|---|---|
| 2008 | -5.6% | -3.7% | -1.9% | +1.2% |
| 2007 | 11.8% | 10.6% | +1.3% | +3.4% |
| 1999 – 2008 annualised | 5.5% | 4.7% | +0.8% | -0.3% |
| 1994 – 2008 annualised | 6.1% | N/A | N/A | +1.4% |

[1] For the Annual Reports from 2001 to 2003, the return on total assets and return on investment benchmark are in US dollar terms.
[2] Established in January 1999.
[3] December year-on-year percentage change in the HK-CPI(A). CPI(A) is calculated based on the 2004/2005 base new series.

**Chart 1** **Investment return of the Exchange Fund (1994-2008)**



## Chart 2 Investment return of the Exchange Fund and the Exchange Fund's investment benchmark (1999-2008)




## Table 3 Currency mix of the Exchange Fund's assets on 31 December 2008 – including forward transactions

| | HK$ billion | % |
|---|---|---|
| US dollar and other currencies [1] | 1,245.5 | 79.8 |
| Hong Kong dollar | 99.5 | 6.4 |
| Euro, yen, sterling and other currencies [2] | 215.3 | 13.8 |
| **Total** | **1,560.3** | **100.0** |

[1] Including mainly Australian dollar, Canadian dollar and Singapore dollar.
[2] Including mainly Swiss franc, Swedish krona, Norwegian krone and Danish krone.