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# FRBSF WEEKLY LETTER

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## Monetary Lessons of Hong Kong

Many small, open economies have responded to the uncertainties associated with the introduction of floating exchange rates in 1973 by linking the value of their currency to that of a major currency—like the U.S. dollar, the Japanese yen, the German mark—or to a basket of currencies. However, to the extent that a country attempts to keep this linkage fixed through varying circumstances, this approach limits its ability to pursue independent monetary policy. Consequently, in practice, most countries implement periodic adjustments in the value of their currency, permitting somewhat more latitude in conducting monetary policy than if the currency peg were permanent.

The members of the European Monetary System (EMS) are contemplating a step beyond such "adjustable pegs." Under the proposed plan to move toward a common currency at some time in the future, EMS members would in the meantime fix their exchange rates with each other irrevocably, such that revaluations would not be allowed. Nominally, each European country would still have its own currency, but in effect European central banks would surrender their power to conduct independent monetary policy. Money creation in each economy would then be determined by the demand for each national currency at the permanently fixed exchange rates. This situation would be similar to that of a country or a territory with its own currency but no central bank.

There is little theoretical guidance on how a monetary system of this nature would affect individual European economies, but there is one recent example of such a system: Hong Kong during the five years from 1983 to 1988. This *Letter* examines the lessons offered by Hong Kong's experience.

### **Monetary control without a central bank**

Most modern economies have established a central bank to control their domestic money supply, based on the belief that this is conducive to improved macroeconomic performance in both the short and long run. In the short run,

central banks may be able to play a role in smoothing short-run domestic output fluctuations, although, in practice, with varying degrees of success. In the long run, central banks attempt to prevent excessive money creation in order to achieve long-run price stability and support sustained economic growth.

In a regime without a central bank, money creation is determined by the market. Theory suggests that a monetary regime without a central bank can still achieve long-run price stability, provided that the monetary liabilities of the banking sector are at all times fully convertible with a stable major currency at a fixed exchange rate. Hong Kong's monetary system from 1983 to 1988 qualifies as an example of such a system.

Hong Kong's system of monetary control has two unique features. First, in the absence of a central bank, currency in Hong Kong was and still is issued mainly by the privately-owned Hongkong and Shanghai Banking Corporation (HSBC). To issue currency, the HSBC surrenders foreign exchange assets to the government Exchange Fund to purchase certificates of indebtedness, against which it is authorized to issue Hong Kong dollar notes. The HSBC can exchange foreign exchange assets for these certificates at a fixed exchange rate set by the government. (Since 1983, the exchange rate has been HK\$ 7.80 per U.S. dollar.) The Exchange Fund in turn stands ready to exchange foreign assets for certificates of indebtedness at the fixed exchange rate.

The second key feature of Hong Kong's monetary control system is that banks do not hold reserves with the government to settle interbank claims. Instead, they hold deposits at the HSBC, which acts as the clearing bank for all interbank transactions in Hong Kong. These clearing balances can be exchanged for Hong Kong dollar notes and vice versa.

These two aspects of Hong Kong's system mean that liquidity within the banking system (that is, currency and net interbank clearing balances),

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as well as the rate of money (deposit) creation, are both functions of the size of the liabilities of the HKSB. These arrangements for money creation under a fixed exchange rate have two implications. First, any domestic notes issued are fully backed by foreign currency assets, and are therefore fully convertible at the fixed exchange rate set by the government; this puts a limit on note (and, therefore, money) creation. Second, without central bank powers, the government has had little ability to manipulate the money supply. Instead, the market has determined the equilibrium supply of money at the fixed exchange rate, based on preferences between foreign- and domestic-currency assets.

## Adjusting to shocks

In the event of a purely monetary shock in which there is an excess supply of or demand for money, such a regime can readily restore monetary equilibrium, in a manner similar to the textbook description of the gold or gold-exchange standard adjustment mechanism. An excess supply of money, for example, would put downward pressure on the value of the Hong Kong dollar, giving banks an incentive to redeem notes for foreign currency (at the favorable exchange rate offered by the Exchange Fund) in order to sell the foreign currency at a profit in the market, thereby reducing the amount of currency outstanding. If the incentive to acquire foreign assets were sufficiently strong to prompt them to exchange their clearing balances at the HKSB for foreign assets, clearing balances also would be reduced. The overall contraction in the money supply would in turn tend to limit inflationary pressures and preserve the fixed exchange rate.

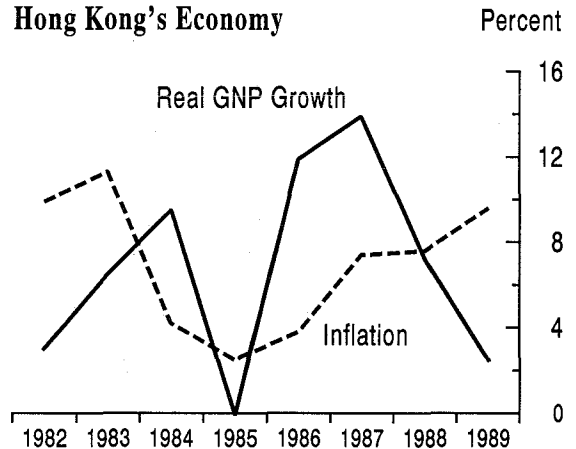
Although monetary shocks can be managed by Hong Kong's monetary regime, theory suggests that a fixed exchange rate regime may amplify the effects of real shocks on output and inflation. These real shocks arise from changes in aggregate demand or misalignment of the exchange rate. Over the period under discussion, Hong Kong was particularly vulnerable to exchange rate misalignments caused by fluctuations in the U.S. dollar that did not reflect changes in the underlying fundamentals in Hong Kong.

Between 1983 and 1987, the U.S. dollar first appreciated and then depreciated, and the Hong Kong dollar did likewise. In each case, the movement in Hong Kong's currency did not reflect

conditions in Hong Kong, but the peg to a fluctuating U.S. dollar.

In such a small, open economy, the impact of these sharp fluctuations in the exchange rate was substantial, and may have contributed to the volatility in real GNP growth and inflation illustrated in the chart. Specifically, appreciation of the Hong Kong dollar from 1983 to 1985 appears to have contributed to an unprecedented recession in Hong Kong in 1985. The subsequent sharp decline of the Hong Kong dollar appears to have produced an undervaluation in the currency and a temporary economic boom. Economic growth accelerated to an average pace of nearly 13 percent in 1986 and 1987, compared to a decline of 0.1 percent in 1985.

## The Volatile Performance of Hong Kong's Economy



During this boom, Hong Kong experienced large speculative capital inflows on the expectation that the government would allow the Hong Kong dollar to appreciate by adjusting the peg. These inflows were monetized as a result of the fixed exchange rate. Money growth accelerated from 25 percent in 1985 to a peak of 43 percent in 1987. Consequently, inflation rose from under two percent in 1985 to close to 10 percent in 1989. The rise in inflation contributed to a loss in competitiveness and a slowdown in the pace of economic growth to 2.5 percent last year.

In a regime with more exchange rate flexibility, the Hong Kong dollar might have depreciated against the U.S. dollar in 1983–85 and appreciated against the U.S. dollar in 1985–87, limiting the volatility in Hong Kong's growth and inflation

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in the 1980s. However, the absence of a central bank probably precluded greater exchange rate flexibility. A clear and credible commitment to a fixed exchange rate apparently underpins the stability of Hong Kong's monetary regime. In 1982-83, uncertainty about the future of Hong Kong triggered a speculative attack on the Hong Kong dollar, which ended only when the government established a credible exchange rate peg in October 1983. Subsequent adjustments in the peg, therefore, would have raised questions about this commitment.

#### **A central bank by any other name**

Thus, rather than adjust the exchange rate, the government was able to interrupt the speculative shift into Hong Kong dollars over 1985-87 by discouraging capital inflows. In November 1987, the government announced a "negative interest rate" scheme that would have penalized licensed banks for their credit balances at the clearing house and depositors for holding balances in excess of 1 million Hong Kong dollars at licensed banks. The scheme was never implemented, as the mere announcement ended the upward pressure on the Hong Kong dollar.

The negative interest scheme was the prelude to a much more significant change: the end of the system of passive money creation in Hong Kong. Since July 1988, the HKSBC has been required to maintain a non-interest bearing Hong Kong dollar account with the government Exchange Fund equal to the size of its net clearing balance liability in the interbank market. The HKSBC must pay an interest penalty if the balance in its account with the Exchange Fund falls below the net clearing balance.

With this change, the government can now manipulate the money supply (and has done so frequently since 1988) by influencing the level of the HKSBC's account with the Exchange Fund. For example, when the government wishes to

counter downward pressure on the Hong Kong dollar, the Exchange Fund purchases Hong Kong dollars from the HKSBC, thus drawing down the value of the HKSBC's account with the Exchange Fund and forcing the HKSBC to reduce the size of the net clearing balance in the interbank market. Since the government can, in effect, initiate changes in the money supply, Hong Kong now has the near equivalent of a central bank with powers to conduct discretionary monetary policy if it wishes.

#### **Lessons**

The lessons offered by Hong Kong's experience are mixed. It is apparent that an economy can have a very satisfactory economic performance, on average, even when the market controls money creation. Over the 1983-89 period, Hong Kong's annual GNP growth averaged 7.3 percent, among the highest in the world. Inflation, which averaged 6.2 percent, was not excessively high by world standards, although some other financial centers such as Singapore had much lower inflation (around one percent) over the period.

At the same time, the costs of a monetary regime with an inflexible peg can be significant. Such a peg can lead to exchange rate misalignment, large speculative capital flows, and volatility in growth and inflation. In the absence of a central bank, it is very difficult to correct exchange rate misalignment because adjustments in the peg tend to undermine the credibility of the monetary regime. The pressures created by exchange rate misalignment appear to have prompted Hong Kong to discourage capital flows, and more recently, to assume central banking powers to control the money supply. Similar pressures may confront European economies in their efforts to achieve currency unification.

**Ramon Moreno**  
**Economist**

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Research Department  
Federal Reserve  
Bank of  
San Francisco

P.O. Box 7702  
San Francisco, CA 94120