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Why Attack a Currency Board?

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On October 23, 1997, a massive speculative attack took place against the Hong Kong dollar. Interbank interest rates soared into triple digits, and one-month interest rates hit 50%. Although high interest rates successfully repelled this initial attack, it turned out that "Black Thursday" was just the beginning. Major attacks also occurred in January, June, and August of 1998. The prolonged period of high interest rates took a serious toll on Hong Kong's economy, which is heavily dependent on the interest rate-sensitive real estate and financial services sectors. Output declined by over 5% during 1998.

But wait a minute. Doesn't Hong Kong have a currency board? Doesn't that mean a speculative attack could never succeed and, therefore, should never have occurred in the first place? After all, Hong Kong's foreign exchange reserves are more than three times greater than the outstanding stock of currency. Wasn't it rather quixotic of speculators to think that with all those reserves backing up the Hong Kong dollar they could bring down the currency?

This *Letter* will argue that there is a crucial and often neglected characteristic of currency boards that is essential for their credibility and success. Not only must there be sufficient reserves to back a well-defined notion of the monetary base, but it must also be clear that these reserves will be used if necessary. In other words, there is an important distinction between the *ability* to defend a peg and the *willingness* to defend a peg. There was never any doubt about Hong Kong's ability to defend its peg to the U.S. dollar. Instead, the attacks were precipitated by the market's suspicion that Hong Kong might not be willing to defend the peg at all costs.

I will start by reviewing several institutional changes that took place during the past decade which cumulatively had the effect of planting the seeds of doubt about the willingness of Hong Kong to adhere to its peg. Then I will review several more recent changes that seem to have restored, or at least enhanced, the credibility of Hong Kong's currency board.

The evolution of Hong Kong's currency board

China has always been important to Hong Kong's economy, so it is not too surprising that for much of its early history Hong Kong linked its currency to China's. Since China pegged to silver, so did Hong Kong. As it turned out, however, the tide of history was against silver, and as the rest of the world shifted away from bimetallism to a gold standard, China's peg to silver became increasingly problematic. Large swings in the price of silver led to large swings in the competitiveness of China's and Hong Kong's exports. Then, in 1934, largely in response to domestic political interests, the U.S. enacted the Silver Purchase Act, which aimed to raise the world price of silver. The attempt to raise the price of silver led to a massive outflow of silver from China and Hong Kong, which translated into a contractionary force on their economies. Consequently, in late 1935, both China and Hong Kong abandoned silver as a monetary standard. Given its colonial status at the time, Hong Kong naturally turned to the British pound as backing for its currency. This change was formalized in the "Currency Ordinance" of 1935, which set up a fund (unimaginatively called the Exchange Fund) to purchase silver from the public and then sell it in London in exchange for pound sterling. The Exchange Fund continues in operation to this day, and the Currency Ordinance remains its legal basis of operation.

From 1935 to 1967, Hong Kong operated pretty much like a classic colonial currency board, except that private banks, not the government, actually issued the currency. Nonetheless, the assets of the Exchange Fund automatically backed fully the note issues of the banks, since each note had to be backed by a so-called Certificate of Indebtedness, which could be acquired only by depositing (at zero interest) pound sterling at the Exchange Fund.

Unfortunately, beginning in the late 1960s, the international monetary system began to unravel. One of the first signs of trouble was the forced devaluation of the pound in 1967. Subsequent instability in the value of the pound made it unattractive as a currency anchor. So, beginning in the late 1960s, and with the permission of the British government, Hong Kong took steps to switch to a U.S. dollar anchor. This involved a gradual conversion of the Exchange Fund's assets from pound-denominated securities to dollar-denominated securities.

As it turned out, this first attempt to peg to the U.S. dollar proved to be short-lived. Like the pound before it, the U.S. dollar came under attack in the early 1970s. In response, the U.S. decided to let the dollar float, and it promptly began to sink. At this point, rather than attempt to find a more stable anchor, Hong Kong decided to go with the crowd and let its currency float too. Floating worked reasonably well for a while, but as the Sino-British negotiations on reversion approached, speculation against the Hong Kong dollar erupted. This speculation peaked during October 1983. The Hong Kong dollar depreciated so rapidly that authorities feared it would produce a run on the banking system, which would have reinforced the currency crisis. As a result, it was decided that the only way to restore confidence in the financial system was to go back to a currency board arrangement. So at the end of October 1983, Hong Kong ended its experiment with floating exchange rates and announced that it was pegging its currency to the U.S. dollar at a conversion rate of 7.8 to 1.0. Remarkably, despite enormous changes in the political landscape and the world economy, the peg endures to this very day.

From rules to discretion

During the early years of the restored currency board, the Exchange Fund could influence liquidity in the banking system (and hence influence short-term interest rates) in only two ways. One, it could use its reserves to intervene directly in the foreign exchange market. Two, it could borrow and lend directly in the interbank funds market. For a while, these limited tools seemed to be adequate, and the currency board performed smoothly.

Starting in late 1987, however, the U.S. dollar began to depreciate sharply. The weakness of the dollar led to speculation that Hong Kong would revalue its currency. To maintain the peg, the Exchange Fund had to intervene massively in the foreign exchange market to soak up the excess supply of U.S. dollars. Paradoxically, while this intervention in itself certainly did not create a problem for the sustainability of the peg (after all, Hong Kong was gaining reserves, not losing them), it triggered a string of "technical" changes in the operation of the currency board that gradually increased the discretionary powers of the Exchange Fund. It was this gradual move toward

First, the Exchange Fund was not happy with the way interbank clearing was done, and it wanted some way to "manage" interbank liquidity more efficiently. Initially, all interbank clearing and settlement ultimately took place on the books of a single private commercial bank--the Hongkong and Shanghai Banking Corporation (HSBC). The government felt that this was an antiquated system and that it created unnecessary volatility in the interbank funds market. For example, private commercial transactions of HSBC could influence the overall level of liquidity in the banking system. So, in July 1988, a law called the Accounting Arrangements was passed. This law required HSBC to open a clearing account with the Exchange Fund. The balance in this account would then represent the net liquidity of the banking system. Importantly, the Exchange Fund gained complete discretion over the level of this clearing balance.

A second step toward discretion was taken in June 1992, when the Liquidity Adjustment Facility (LAF) was established. The LAF was like a discount window. It allowed banks to make late adjustments to their clearing accounts through repurchase agreements with the Exchange Fund. Importantly, the bid and offer rates at the LAF established floor and ceiling rates in the interbank overnight funds market.

The third step toward discretion involved the establishment of a government securities market. Hong Kong's government has typically run a surplus, so there was little need, for fiscal reasons, to issue government bonds. In the early 1990s, however, it was decided that a government securities market would improve the functioning of Hong Kong's financial system. Government securities would enhance firms' ability to hedge, and their yields would provide an informative yield curve. By and large, their introduction has indeed been quite successful along these dimensions. At the same time, however, the existence of government securities allowed the Exchange Fund to commence open market operations. Buying and selling government securities is a more efficient way to manage bank liquidity than direct intervention. The problem, from a credibility standpoint, is that the distinction between managing liquidity and conducting discretionary monetary policy was becoming increasingly unclear.

The line between liquidity management and monetary policy became even more unclear in December 1992, when the Exchange Fund Ordinance was amended and the Hong Kong Monetary Authority (HKMA) was born. Not only did the HKMA take over operation of the Exchange Fund, but it also gained powers of bank regulation. To outsiders, the new HKMA looked more like a central bank than the passive overseer of a currency board.

Suspicions about the HKMA seemed to be confirmed in March 1994, when it announced a change in operating procedures. Until then intervention by the HKMA had been sporadic, taking place only in support of the peg. Now the HKMA said it was going to target the interbank interest rate. This is exactly how the Fed and other central banks behave. (Of course, the peg placed constraints on the rate it could target, i.e., it couldn't depart too much from the U.S. federal funds rate.) The switch to interest rate targeting greatly increased the market presence of the HKMA and, to many observers, was the clearest signal of all that perhaps Hong Kong was not *willing* to defend the peg.

The HKMA puts its money where its mouth is

At this point it is important to emphasize that these steps toward discretion were the unintended consequences of well-meaning efforts to enhance the operation of the currency board. No one believes Hong Kong was trying to establish an independent central bank. Still, actions do speak louder than words, particularly in the monetary policy arena, and the increased ability and evident desire to target the interest rate sounded warning bells in the market. The HKMA can set one price, not two, and it became less and less clear that, if confronted with a choice between the interest rate and the exchange rate, the HKMA would necessarily choose the exchange rate. Thus, the attacks of 1997-98.

To their credit, the authorities in Hong Kong were quick to recognize that they needed to enhance their credibility. Unlike some other countries, they refrained (for the most part) from blaming speculators and instead took positive and credible measures to convince them that they would lose if they bet against the Hong Kong dollar (or, more precisely, that the government would incur large costs if they succeeded).

After the fourth major attack in August 1998, a list of seven "technical measures" was drawn up to increase the currency board's credibility. Two were particularly important. First, under a so-called Convertibility Undertaking, the HKMA announced that it was guaranteeing the U.S. dollar value of the clearing accounts of all licensed banks. Essentially, the banks were given a put option on their clearing accounts. This shifted a large amount of currency risk from the banks to the HKMA. Now if the peg were abandoned, the government would have to make up for losses on at least some of the banks' Hong Kong dollar-denominated assets. Under Hong Kong's common law system, this guarantee would be enforceable in the courts.

The second key measure was to allow banks to use Exchange Fund bills and notes as collateral for discount window borrowing. In combination with the Convertibility Undertaking, this second measure effectively guaranteed the U.S. dollar value of all Exchange Fund paper. At the stroke of a pen the currency board's monetary base doubled, since the combination of the existing clearing balances and the outstanding stock of Exchange Fund paper roughly equals the outstanding stock of currency. This means that it will now take a much larger attack to produce a given increase in interest rates.

These guarantees appear to have been successful. Virtually overnight, the large spread between short-term Hong Kong dollar interest rates and U.S. dollar interest rates disappeared. In addition, there has not been a significant attack since these measures came into effect. Still, it would be rash to argue that the HKMA's credibility problem has been resolved. These measures were put in place as the Asian Crisis was *ending*. It is not at all clear whether they would have *prevented* the initial attacks. After all, the HKMA still has more discretionary powers than it started with. The recent measures have only increased the costs of inappropriately using this discretion. Would it perhaps not be better to forsake discretion altogether?

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