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HONG KONG: THE CURRENCY BOARD'S AUTOPILOT KICKS IN AT 7.85

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Johns Hopkins Institute for Applied Economics, Global Health, and the Study of Business Enterprise

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About the Series

The Studies in Applied Economics Series is under the general direction of Professor Steve H. Hanke, co-director of the Johns Hopkins institute for Applied Economics, Global Health, and the Study of Business Enterprise (hanke@jhu.edu). This working paper is one in a series on currency boards and monetary systems. The working papers will fill gaps in the history, statistics and scholarship of the subject. The authors are mainly students at the Johns Hopkins University in Baltimore.

About the Author

John Greenwood is the Chief Economist at Invesco Ltd, a global asset management company. As editor of the Asian Monetary Monitor over the period 1977-96, he is widely credited as the designer of the restored currency board system in Hong Kong at the time of the currency crisis in 1983, a model for numerous subsequent currency board systems. Holding an MA and Honorary Doctorate from the University of Edinburgh, he is the author of "Hong Kong's Link to the US Dollar – Origins and Evolution" (Hong Kong University Press, 2007). He became a Fellow of the Johns Hopkins Institute of Applied Economics in June 2016.

Abstract

In the years since the Global Financial Crisis of 2008-09, the spot rate for the Hong Kong dollar has mostly traded near the upper end of its band, the Convertibility Undertaking of 7.75 set by the HKMA. After a year and a half of gradual weakening, the HK$ finally reached the weak side level of 7.85 on April 12 2018, triggering US$ sales by the HKMA. This paper explains first why the weakening of the HK$ is perfectly normal under the currency board system, posing no threat to the currency board mechanism. It also explains why it has taken so long for the weak side convertibility undertaking to be triggered, and why HK$ interest rates have lagged behind US$ rates. The paper ends by asking whether discretionary intervention by the HKMA within the convertibility zone would be desirable to accelerate the process of interest rate normalization in Hong Kong. This is a variation on a familiar theme: rules versus discretion in monetary policy.

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Keywords: Currency board, Monetary base, Interest rate parity, Hong Kong, China

Introduction

Over the past nine years since the Global Financial Crisis (GFC) of 2008-09, Hong Kong's exchange rate has persistently remained on the strong side of the Hong Kong Monetary Authority's convertibility band, often close to the strong side Convertibility Undertaking at HK$ 7.75 per US$ 1.00. However, starting in early 2017 the market rate for the HK$ started to weaken, moving away from the 7.75 level, and on 12 April 2018 the rate finally reached the weak side Convertibility Undertaking at HK$ 7.85, triggering US$ sales by the HKMA.

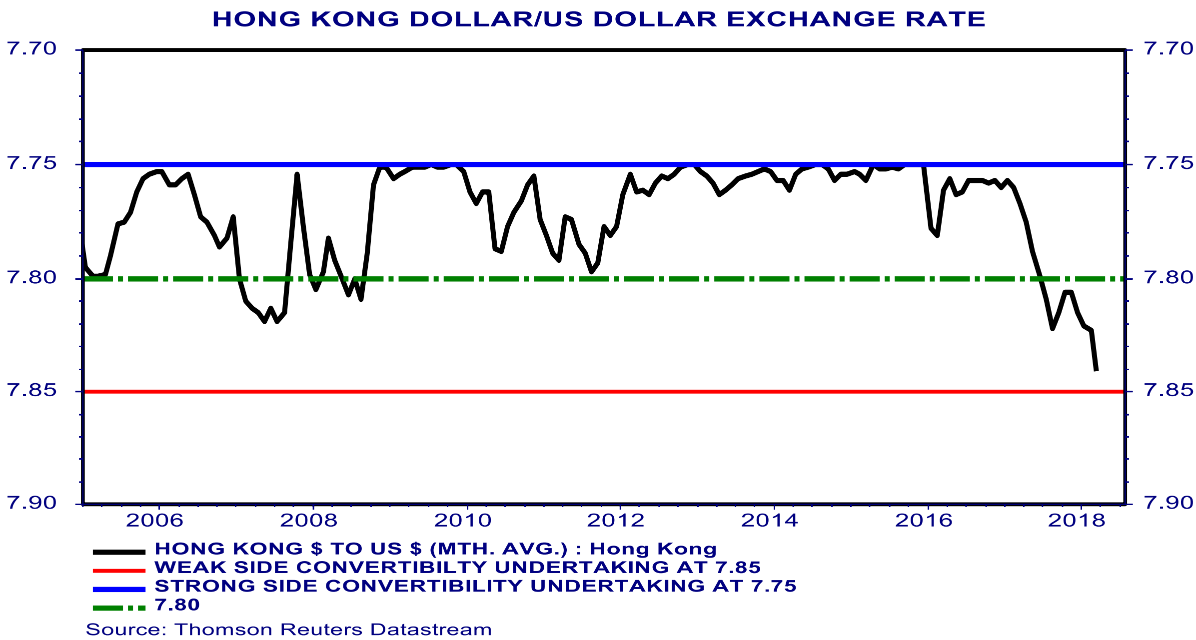
Why did the HK$ remain so firmly on the strong side of the 7.80 rate for currency note issuance for so long? Does the recent weakening of the exchange rate represent a crisis for the currency, or is it a normal part of the working of the Currency Board system? Given that the rise in interest rates in Hong Kong (represented by HIBOR) has lagged behind the increase in US rates (like US$ LIBOR) for the past two years, is there a case for the HKMA stepping in and accelerating the process of interest rate normalization?

This brief paper explores some of the background to these events, and how the HKMA should operate in the future.

Section 1. Recent Developments

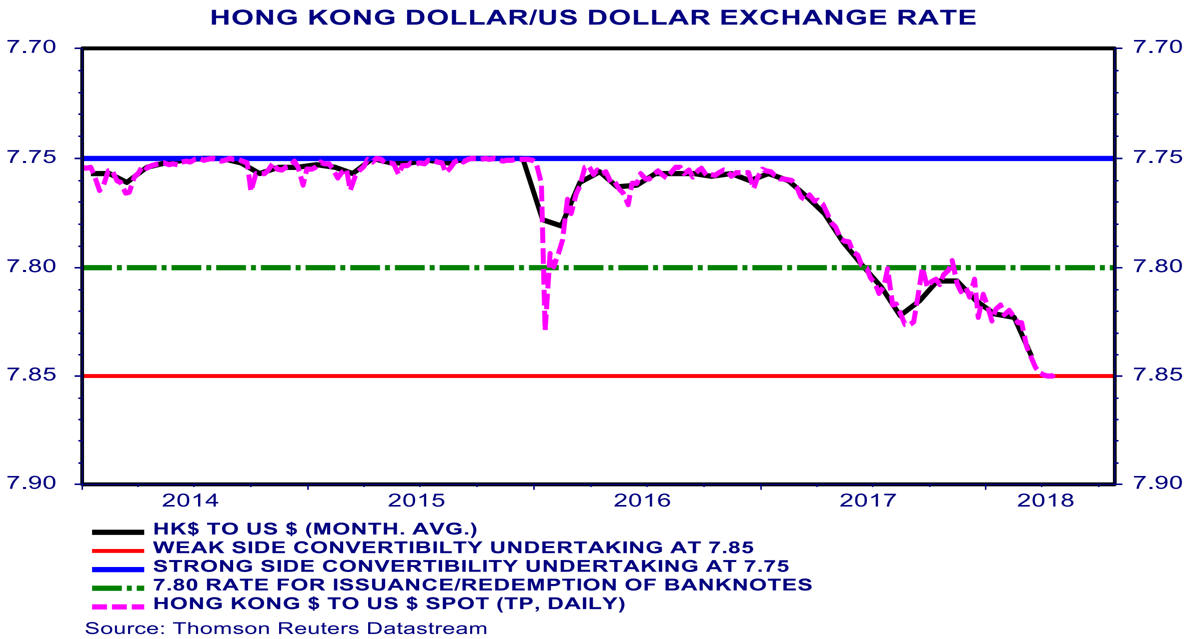
The Hong Kong currency system is often referred to as a Linked Exchange Rate System (LERS) centered on HK$7.80 per US$1.00. However, in reality the HKMA is better described as operating an exchange rate band with the exchange rate varying between 7.75 and 7.85 per US$ 1.00 (see Figures 1 & 2).

Figure 1. Spot Rate for HK Dollars per US Dollar, 2005-18



It is true that in order to issue banknotes the three note-issuing banks – the Hong Kong & Shanghai Bank, Bank of China, and Standard Chartered Bank - must pay US$ at the central 7.80 rate to the HKMA in order to obtain Certificates of Indebtedness (CIs) which in turn authorize the banks to issue HK$ banknotes. However, banknotes today only comprise about 6% of total HK$M3 (the broad money supply held by households and companies in Hong Kong). By contrast, the vast majority of foreign exchange transactions occur in the open market at exchange rates somewhere between the two limits of 7.75 and 7.85 – i.e. within the convertibility band.

Figure 2. Daily Spot Rate for HK Dollars per US Dollar, 2014-18

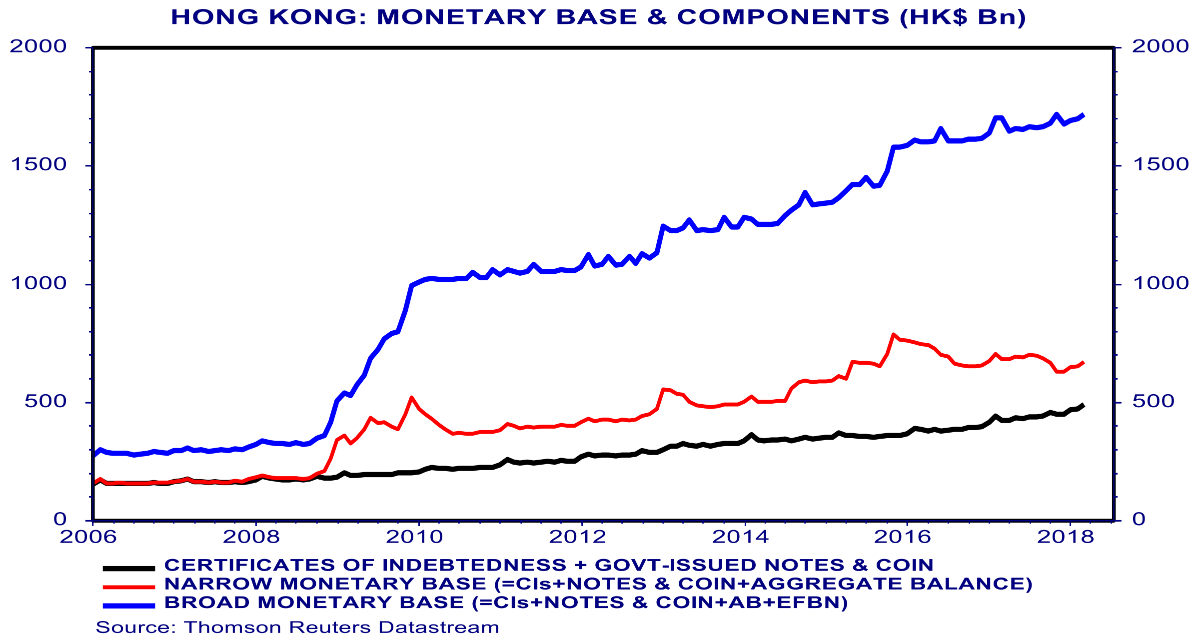


A key point to note about the system is that so-called interventions by the HKMA are in fact not initiated by the HKMA at all, but rather by the commercial banks. The reason is that the HKMA has issued “Convertibility Undertakings” (CU) or promises to sell Hong Kong dollars at 7.75, and US dollars at 7.85 in whatever amounts the market requires.

So whenever the HKD/USD exchange rate reached or exceeded the strong side CU – say, 7.74 – it became cheaper for banks to buy HK dollars from the HKMA, obtaining HK$7.75 for every US$ 1.00, than to buy in the market where they would obtain only HK$7.74 for every US$ 1.00.

Conversely, when the exchange rate reaches the weak side CU -- say, 7.86 – it becomes cheaper for the banks to buy US dollars from the HKMA at 7.85 than to buy from the market at 7.86. In other words, the banks typically approach the HKMA to do the transactions. It is not the HKMA stepping into the market to “prop up” the currency or defend it. Since April 12, 2018 in response to demand from the banks, the HKMA has been simply fulfilling its obligation under the CU to supply US$ at 7.85.

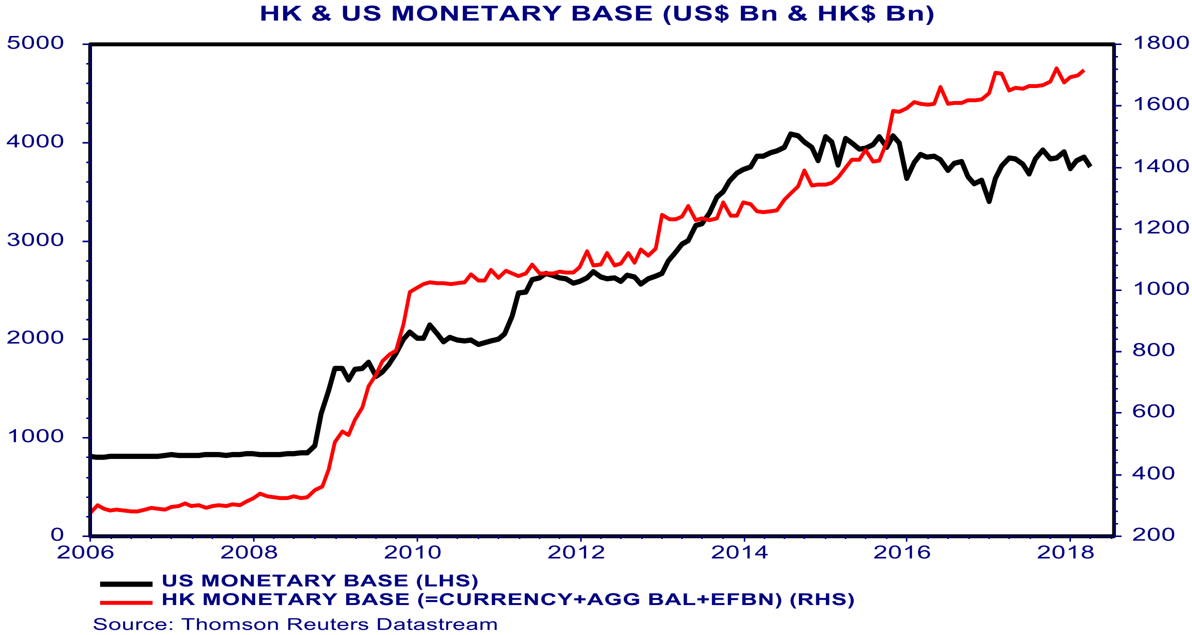
Figure 3. Components of Hong Kong's Monetary Base, 2006-18



Another key point to be aware of is that since the GFC in 2008, inflows into Hong Kong have been enormous, pushing the exchange rate to the 7.75 strong side CU for much of the time. This resulted in sales of US$ by the banks to the HKMA in exchange for HK$ requested by their customers. In fact the monetary base, or the key part of the HKMA's balance sheet (comprising banknotes and coin plus banks' settlement accounts plus Exchange Fund Bills & Notes) that includes these transactions, increased from HK$ 348 billion on 30 September 2008 to HK$ 1,663 billion on 26 April 2018, an increase of over HK$1.3 trillion (Figure 3).

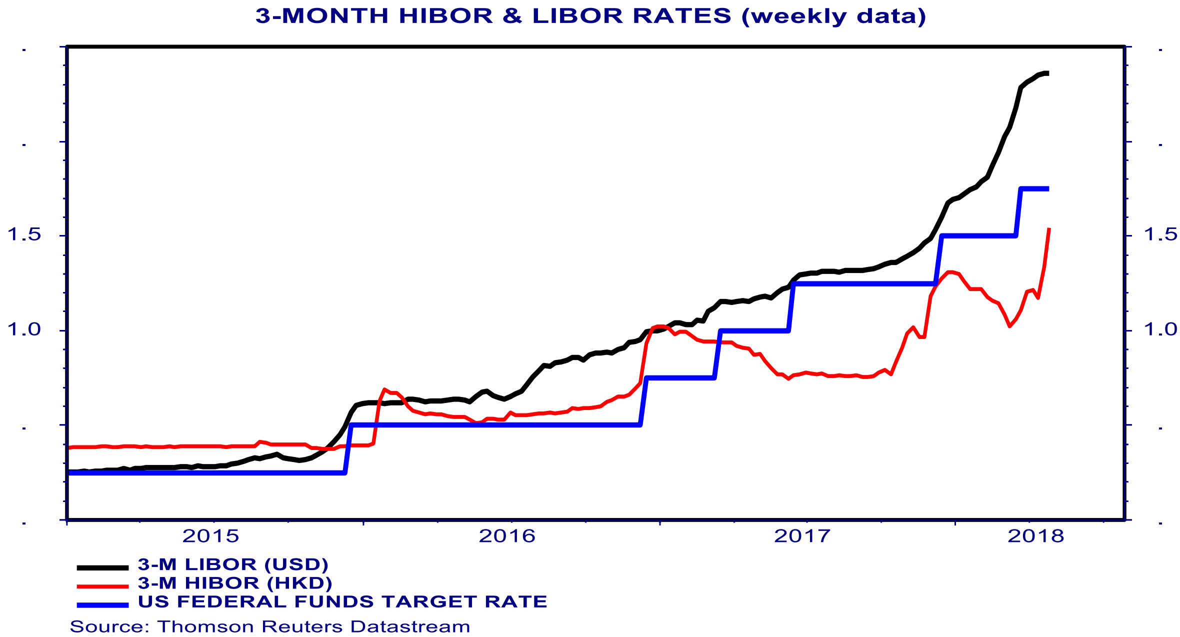
The overall HKMA balance sheet (which includes on the asset side additional fiscal reserves from past government surpluses and accumulated earnings on foreign exchange reserves) reached HK$ 4,193 billion (or US$ 537 billion when converted at 7.80) in January, more than twice the size of the monetary base. With official foreign exchange reserves of US$ 442 billion in January 2018 and HK$M3 at HK$ 7,266 billion (or US$ 931.5 billion), the foreign assets of the HKMA were equal to 47% of HK$M3. As all of the foreign currency reserves are available to support the HK$ and persistent outflows of HK$ would reduce the available stock of liquidity, driving up interest rates, outflows would soon be deterred by rising rates and funds would flow back into Hong Kong. The currency board, in short, is in no danger.

Figure 4. Comparison of Hong Kong's Monetary Base with the US Monetary Base, 2006-18



Just as the US Federal Reserve is currently reducing the size of its balance sheet – a process that started in October 2017 – the HKMA will also want its balance sheet to diminish in size (Figure 4). But in Hong Kong the only way this can happen naturally through market forces is if the exchange rate falls to the weak side CU level of 7.85, resulting in "outflows" of HK$ (i.e. sales of HK$ by the banks to the HKMA at 7.85 and the debiting of banks' settlement accounts at the HKMA). This process also tightens up the Hong Kong money market, pushing HK$ interest rates upwards.

Figure 5. Increases in HK$ HIBOR interest rates have Lagged behind US$ LIBOR rates

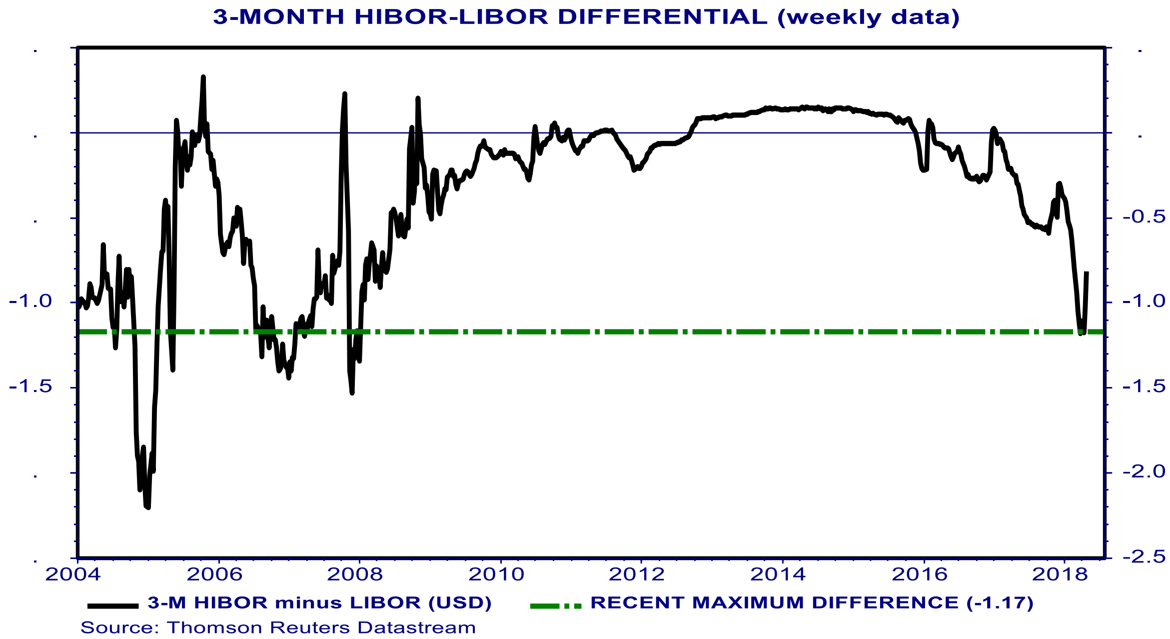


However, as shown in Figure 5, since December 2015 when the Fed started raising interest rates, Hong Kong Interbank Offered Rates (HIBOR) have generally lagged behind London Interbank Offered Rates (LIBOR) in US$, partly because the exchange rate remained well above the weak side CU, and there was no draining of funds out of the HK$ money markets. One long-standing reason for the divergence is that since the CU points are set at 7.85 and 7.75, or 1.3% apart, it would require at least a difference of at least 1.3% in interest rates before profits from arbitrage under interest rate parity theory can be guaranteed.

Section 2. Analysis of the Background

This raises two questions. First, why did the HK$ remain so much stronger than 7.85 for so long? And second, why did the HKMA not push the process forward and close the HIBOR-LIBOR gap by stepping into the market to sell US$ (or buy HK$) before the exchange rate reached 7.85?

Figure 6. Despite special factors in the LIBOR market, recent HIBOR-LIBOR spreads have not been unusual

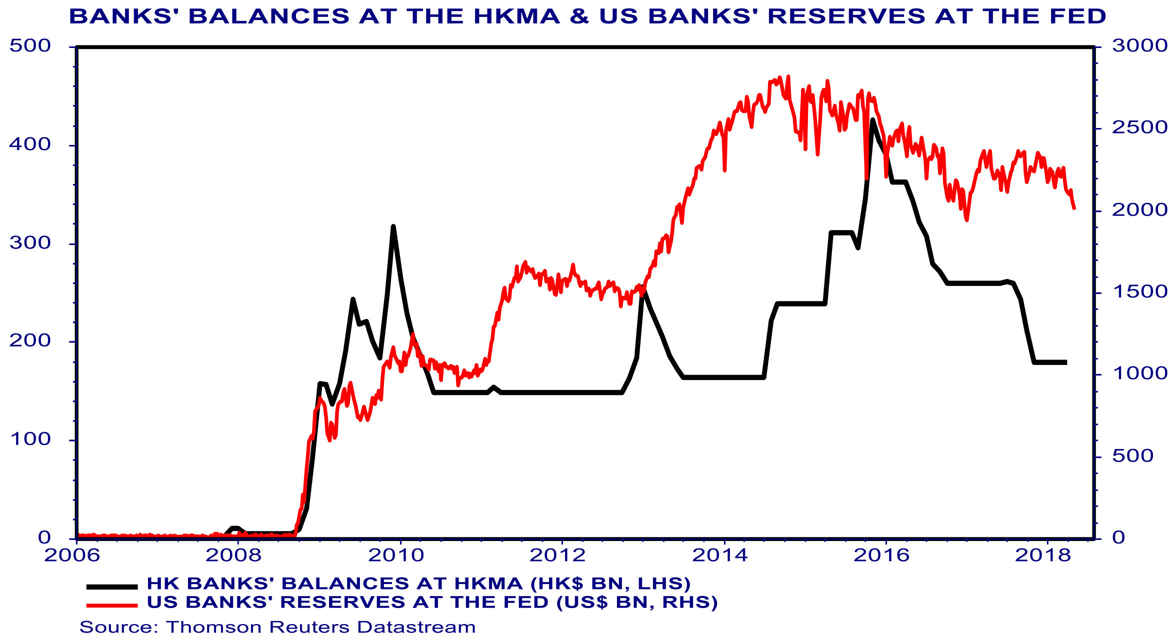


The answer to the first question is that inflows from the Mainland have created more liquidity in Hong Kong than in the past. The Hong Kong-Shanghai Connect and the Hong Kong-Shenzhen Connect schemes have seen a predominance of southbound flows. In addition, strong buying interest in the Hong Kong property market by Mainland investors has also been an additional source of HK$ liquidity.

Because these Mainland investors are possibly not so concerned with the interest rates or short term returns they receive in Hong Kong, but are more concerned about keeping assets in Hong Kong as a kind of long term, safe haven investment, they are perhaps less sensitive to the interest rate differentials between the HK$ and US$ money markets.

The result is that it has taken time for the HIBOR rates to follow LIBOR. An additional factor to mention is that since the end of 2017 and the enactment of President Trump's corporate tax cut with its cash repatriation incentives US$ LIBOR has increased relative to either EURIBOR or the Sterling LIBOR, exacerbating the apparent difference between HIBOR and LIBOR (see Figure 6).

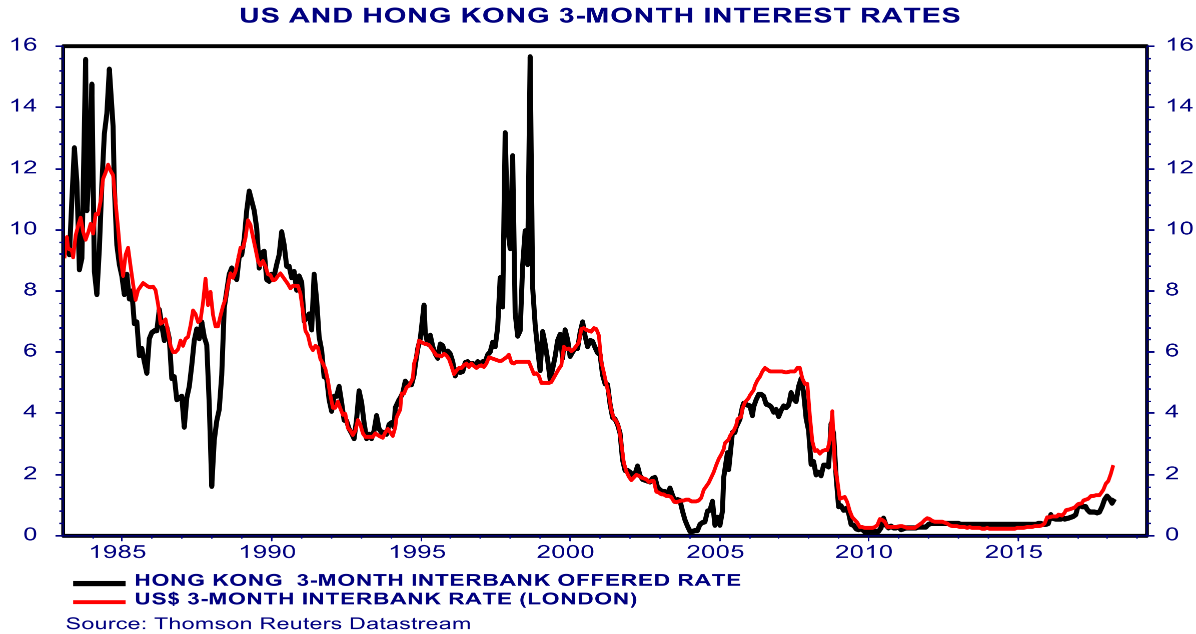
Figure 7. Hong Kong's Aggregate Balance has moved broadly in parallel with US bank balances at the Fed



Nevertheless, for the first time since the 7.85 CU level was set up in 2005, the weak side CU was at last triggered by sales of HK$ by the banks to the HKMA for US$ on April 12, 2018. Since then there have been numerous such episodes, resulting in cumulative sales of US$ 6.5 billion by the HKMA against purchases of HK$ 51.3 billion by the banks (up to April 18). This reduction in the amount of HK$ in the banks' settlement accounts is now gradually raising HK$ interest rates (including HIBOR, see Figure 5) in exactly the way intended.

Clearly there is still a long way to go in terms of reducing the HK$ 1.3 trillion expansion of Hong Kong's monetary base since 2008. This brings us to the second question: why doesn't the HKMA accelerate the process by intervening within the convertibility band to sell US$ or buy HK$?

Figure 8. Past episodes of interest rate deviation with US rates have prompted HKMA intervention

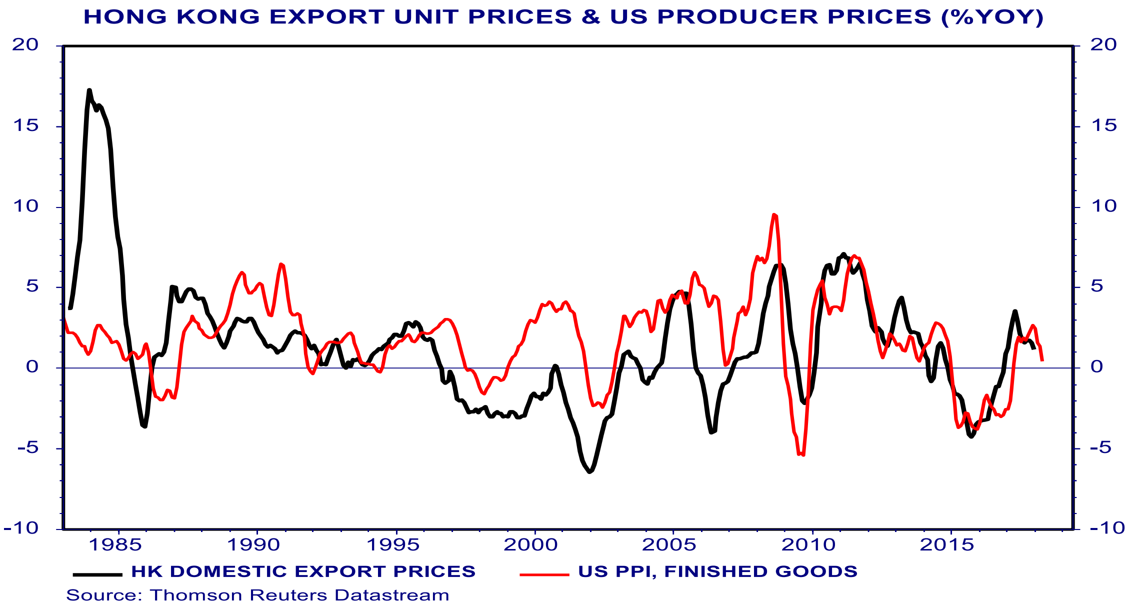


The HKMA unquestionably has the powers to intervene within the convertibility bands. After all, from time to time it provides liquidity and then withdraws it – for example in the case of IPOs. This is done on the basis that the drain on the money market on each occasion is a known quantity of HK$ that can be supplied and then withdrawn after payments for the new shares have been settled.

However, intervention in indeterminate amounts to adjust interest rates would definitely be a discretionary action that is not in accordance with the "rules" of the post-1998 currency board mechanism. Market participants will soon start to think that the HKMA is targeting interest rates rather than the exchange rate band. Even worse, given the motivation of the Mainland investors in Hong Kong (i.e. not based on short term interest rate differentials), such intervention might not succeed in any case. The HKMA could then be buying HKD but inflows could continue, keeping rates low and the property market strong.

Moreover, in the past (2006-08), the HIBOR-LIBOR gap at times exceeded 150 basis points (1.5%), so the current gap of less than 100 basis points (1%) is not unusually large by historical standards (see also Figure 6).

Figure 9. In the long run, a fixed exchange rate implies broadly similar inflation in economies with pegged rates



Discretionary intervention implies that the HKMA engages in a never-ending game of trying to outguess the market. This could easily result in a loss of long term credibility. In my view it is better for the HKMA to preserve and enhance the HKMA's credibility by observing the "rules" of the currency board system. The best way to do that is to operate the 7.75-7.85 band mechanism based on transparent rules that everyone can understand, responding only at the 7.75 and 7.85 Convertibility Undertaking points, and not intervening on the basis of its own discretion between those points.

Summary & Conclusions

The triggering of the weak side CU for the HK$ is a sign of normality returning to the operation of the Hong Kong Currency Board, not a sign of weakness or a threat to its integrity. Like the US Fed, the HKMA has experienced a massive increase in the size of its balance sheet since 2008, and the balance sheets of both should be expected to decline in size during 2018-19.

For various idiosyncratic reasons, HIBOR rates have recently lagged behind US$ LIBOR rates. However, the move in the HK$ rate to 7.85 is now enabling a reduction of the HKMA's balance sheet and a normalization of interest rates in Hong Kong.

Given the Convertibility Undertakings at HK$7.75 and 7.85 it is best for the HKMA not to intervene within the CU zone to accelerate interest rate normalization, but to allow market forces to operate unimpeded.