

BALANCE OF PAYMENTS STATISTICS: EXAMINING SOME RECEIVED WISDOM

Conventional interpretation of balance of payments (BoP) statistics tends to focus on the “overall” BoP position. This position, however, simply mirrors changes in official reserve assets. As such, the overall surplus or deficit says little about autonomous shocks to the external payments position, absent knowledge of the factors driving changes in reserve assets. To ascertain the nature of these shocks, we need to take into account other economic variables such as interest rates, the exchange rate, asset prices, and economic activity.

In Hong Kong, changes in reserve assets are mainly caused by changes in liquidity demand for banknotes, or in Exchange Fund holdings of US dollar assets due to, for example, fiscal transfers. Changes in portfolio demand for Hong Kong dollar assets by the private sector are mainly reflected in the differentials between Hong Kong dollar and US dollar interest rates.

The overall BoP deficit in the first quarter of 2000 was largely due to a decline in liquidity demand for banknotes, rather than a decrease in portfolio demand for Hong Kong dollar assets, as some analysis has suggested. While a BoP surplus was recorded in the second quarter, autonomous inflows probably weakened relative to the first quarter, as evidenced by some firming of interest rates, and a significant correction in equity prices. In the second half of 2000, autonomous inflows were likely to be strong, as indicated by the easing of interest rates to levels below their US dollar counterparts.

I. Introduction

Hong Kong started to publish balance of payments (BoP) statistics in 1999.¹ The full set of statistics, with details on capital account transactions, has been released on a quarterly basis since June 2000. There has tended to be a preoccupation with the overall BoP surplus or deficit in interpreting the statistics.² An overall surplus is often perceived as a sign of strength, and a deficit as worrisome. Moreover, changes in official reserves are often viewed as a passive item accommodating imbalances in the current account

and financial and capital account. This paper reviews some of these commonly held views. It argues that a more meaningful interpretation of the statistics should take into account other variables such as interest rates, exchange rates and economic activity, which reflect adjustments to autonomous changes in various BoP components. Furthermore, instead of assuming that reserve assets are an accommodating item, we examine the main factors influencing movements in the Exchange Fund's foreign currency assets, and analyse their impact on the BoP position.

¹ The first set of BoP statistics for the year 1997 was published in 1999. It shows detailed breakdowns of the current account, the overall balance on the financial and capital account, and the net change in reserves. The first set of statistics with breakdowns of components in the financial and capital account starts from 1998, and the first set of quarterly statistics starts from the first quarter of 1999.

² The overall BoP position represents the sum of balances on the current account and the non-reserve portion of the capital and financial account, plus net errors and omissions. This is the mirror image of changes in reserve assets.

The paper is structured as follows. The next section highlights several key concepts in the BoP framework. This is followed by a discussion in section III of some of the issues involved in interpreting the statistics. It explains why ex-post figures may not tell us much about autonomous shocks to the external payments position. It also argues that, rather than accommodating imbalances in the current and capital accounts, the level of official reserves may itself be a policy target, forcing adjustments in other components. Section IV focuses on Hong Kong, examining the effects of three types of exogenous shocks on our reserve assets, including: (i) a change in the demand for banknotes and clearing balances; (ii) a change in portfolio demand for Hong Kong dollar assets by the private sector; and (iii) a change in Exchange Fund holdings of US dollar assets due to, for example, fiscal transfers. Section V illustrates, with reference to the BoP statistics for 2000, how their interpretation may be affected as we depart from the conventional wisdom. The last section offers some conclusions.

II. An Overview of the BoP Framework

A BoP statement provides a summary of economic transactions between an economy and the rest of the world. It comprises two broad accounts: (i) **the current account**, which covers transactions involving goods, services, investment and other factor income, and current transfers; and (ii) **the financial and capital account**, which covers transactions involving financial claims and liabilities, as well as capital transfers. Some key concepts are highlighted below.

- (i) *Accounting identity*: BoP statistics are compiled based on the double-entry principle. In other words, every transaction is presented by two entries - a “credit” and a “debit” - the sum of which is zero. For instance, exports of goods (a credit in the current account) will be matched by a financial payment from the importer to the exporter, which will result in an increase in net claims on an overseas entity (a debit in the financial and capital account). Thus, conceptually, current account and financial and capital account balances always add up to zero, although in practice this is seldom the case because of errors and omissions.

- (ii) *Financing external transactions*: An imbalance in the current account requires external financing. Specifically, a current account deficit will have to be financed by increasing liabilities to, or reducing claims on, non-residents. Conversely, a current account surplus will lead to a reduction of external liabilities, or an accumulation of external assets. Financial prices, that is exchange rates and interest rates, will adjust in the short run to ensure that imbalances in the current account and financial and capital account offset one another.

- (iii) *Overall BoP position*: In an attempt to give more economic meaning to the BoP identity, the financial and capital account is often decomposed into reserve assets and the non-reserve portion, the latter reflecting private capital flows. Furthermore, conventional analysis tends to assume that changes in reserve assets accommodate imbalances in other BoP components. Such thinking is probably a historical legacy, when the international monetary order was characterised by fixed exchange rates, and capital immobility constrained the responsiveness of capital flows to financial yields. Reserve assets were then assumed to adjust passively to accommodate any changes in the trade position or private capital flows. Thus, a decline in reserve assets was viewed as a “deterioration” in the external payments position, and an increase in reserve assets as an “improvement”.

III. Issues in Interpreting BoP Statistics

Many of the assumptions underpinning the conventional wisdom have changed over the past few decades. The sensitivity of capital flows to financial yields has significantly increased along with the globalisation of financial markets. Furthermore, exchange rate arrangements nowadays vary across economies, implying different adjustment paths to restore external equilibrium. Finally, reserve assets serve other roles than merely as a passive balancing item to other BoP components. It is therefore useful to re-examine what the BoP statistics tell us.

BoP statistics capture external transactions in an ex-post sense. As such, the figures reflect the interaction of: (i) autonomous or exogenous changes in individual components; and (ii) changes in response to interest rate and exchange rate movements, emanating from changes in other BoP components. As a departure from the received wisdom, we view each component, be it the current account, private capital flows, or changes in reserves, as embodying both an autonomous and an induced element.

Take the case of the current account. Examples of autonomous shocks to this component include changes in foreign activity, or movements in foreign prices that affect competitiveness. Apart from these forces, movements in the current account balance may be “induced” by changes in other BoP components. In the US, for instance, strong economic performance, coupled with attractions held out by the “new economy”, has led to a large inflow of capital. The resultant strengthening of the US dollar, combined with higher investment and consumption, has widened the current account deficit from $\frac{3}{4}\%$ of GDP in 1992 to a record high of close to 5% recently. The sustainability of the deficit hinges crucially on whether these capital inflows will reverse. From this example, we can see that developments in the current account could be better understood if they are put in the context of the overall BoP situation.

Interpretation of private sector capital flows sometimes also causes confusion, because many analysts use these figures as an indicator of the underlying demand for domestic versus foreign assets, and label a net outflow as a sign of weak demand for domestic assets. This view ignores the extent to which capital flows are affected by other economic factors. To illustrate this point, suppose there is an exogenous improvement in domestic competitiveness, perhaps because foreign prices rise. The current account surplus will tend to increase, raising domestic activity and saving. The exchange rate will also appreciate. There will be a capital outflow associated with the improved current account position. The outflow, however, will not reflect a decline in the demand for domestic assets, but rather a rise in domestic savings associated with higher output.

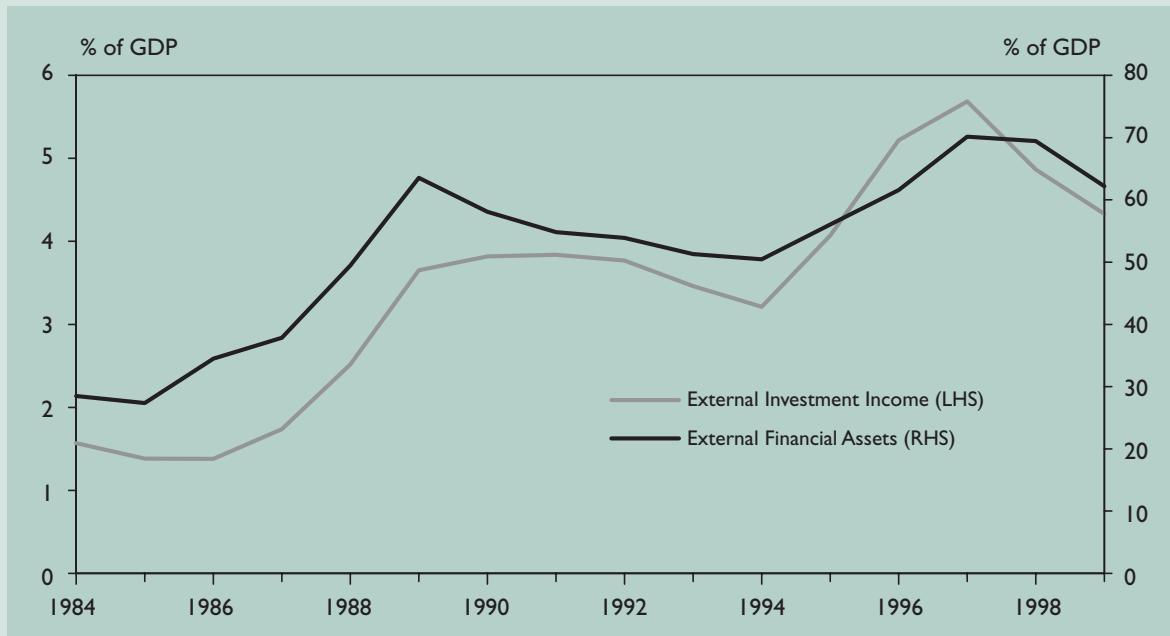
Autonomous changes in the underlying demand for domestic assets can be more meaningfully ascertained by looking at the capital flows statistics together with other economic variables such as interest rates, the exchange rate, and asset prices. In a capital flight situation like the Asian financial turmoil, one will observe a surge in interest rates, a sharp depreciation of the exchange rate, and a collapse of asset prices. Typically, the burden of adjustment would spill over to other BoP components, such as a compression of import demand, as evidenced in most Asian economies following the crisis.

In another situation where persistent current account surpluses result in an accumulation of external assets, we typically observe net capital outflows to occur against relatively strong exchange rate and soft interest rates. It is inappropriate to attach a negative connotation to these capital flows, as they enhance future investment income from abroad. In Japan, for instance, as its external financial assets rose from 28% of GDP in 1984 to 62% in 1999, external investment income correspondingly increased from $1\frac{1}{2}\%$ to $4\frac{1}{4}\%$ of GDP (Chart 1). In Singapore, external investment income rose considerably from $8\frac{3}{4}\%$ to $17\frac{3}{4}\%$ of GDP during the same period, demonstrating the importance of external income to a small open economy.

Causing most confusion in the analysis of BoP statistics is the reserve component. It is overly simplistic to view this as a passive item accommodating imbalances in other components. Consider, for instance, the case of a freely-floating exchange rate where the authorities conduct no reserve operations to influence the exchange rate. Then the overall balance of payments will, by definition, be zero, regardless of changes in the demand for domestic or foreign assets, or any other factors that may affect the BoP components. Such changes will show up entirely in movements in interest rates and the exchange rate; the overall BoP figure will be meaningless as a measure of shifts in capital flows.

More generally, changes in reserve assets often reflect the choice of policy makers in balancing the trade-off among reserve levels, exchange rates, and interest rates. For instance, a

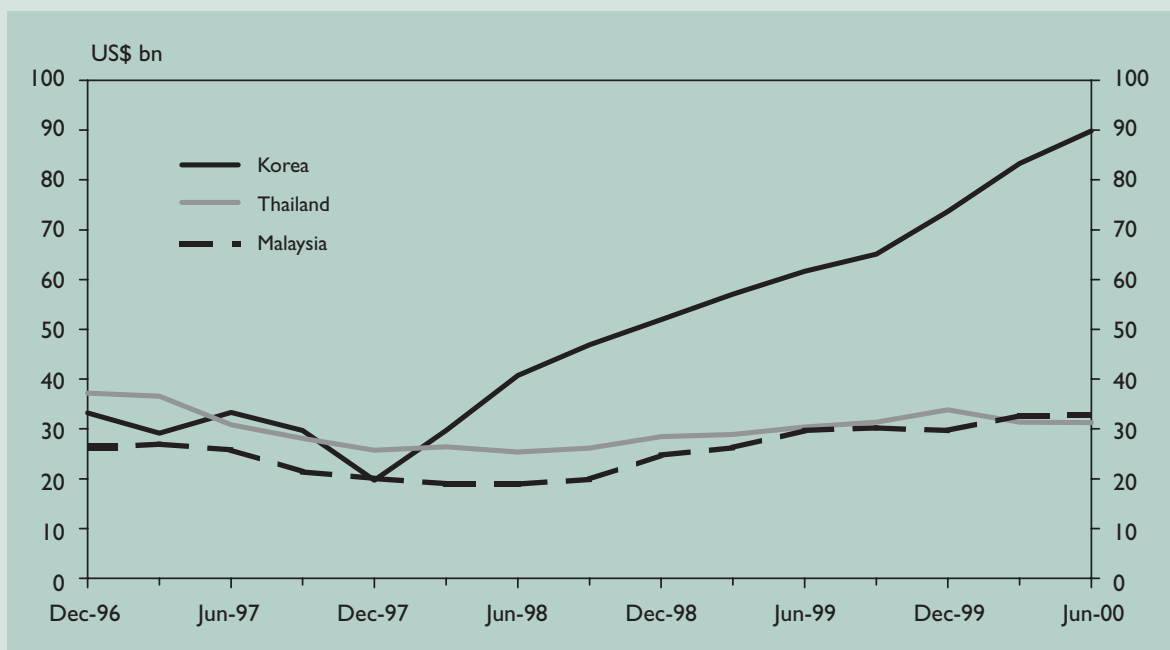
Chart 1
Japan: External Investment Income and External Financial Assets



Note: External financial assets refer to all assets recorded under International Investment Position, including direct investment, portfolio investment, financial derivative, other investments, and reserve assets.

Source: International Financial Statistics (1999 Yearbook & October 2000), Balance of Payment Statistics Yearbooks (1992, 1996 & 1999), and Ministry of Finance of Japan.

Chart 2
Reserves of Selected Asian Economies



Source: International Financial Statistics (October 2000), and CEIC database.

number of Asian economies, particularly Korea, took advantage of large current account surpluses in 1998 to replenish their reserve positions (Chart 2). Arguably, they could have acquired even more reserves, leading to greater ex post capital inflows, but the trade-off would have been downward pressure on the exchange rate and upward pressure on interest rates. Alternatively, if policy makers had chosen not to accumulate reserves, observed capital inflows would have been lower, but the exchange rate would have been stronger and interest rates weaker. All of these outcomes would have been consistent with the same underlying demand by foreign investors for domestic assets.

The policy choices discussed above also determine the manner in which foreign exchange interventions are conducted. One extreme is the currency board system, under which all foreign exchange operations conducted by the currency board are unsterilised. A reduction in investor demand for domestic assets will put downward pressure on the exchange rate, triggering intervention, which results in an immediate reduction in domestic liquidity. This will drive up domestic interest rates. In general, only a small change in liquidity will be needed to achieve a large movement in interest rates, assuming that the demand for domestic liquidity for inter-bank clearing purposes is quite interest-inelastic. Under this system, adjustments to an exogenous outflow (or inflow) of funds fall squarely on interest rates, which have to rise (or fall) to such levels to induce sufficient offsetting flows.³ Depending on the swiftness of the adjustment process, the stock of reserve assets should remain fairly stable.⁴

Most central banks, however, sterilise the impact of their foreign exchange interventions on the monetary base through money market operations. Instead of relying on the interest rate channel, the exchange rate is defended through the “portfolio channel”, that is, by changes in the supply of domestic assets. Specifically, in response

to an exogenous outflow that exerts pressure on the exchange rate to depreciate, the central bank may buy domestic assets in exchange for foreign assets, thus reducing the supply of the former. Conversely, in response to an exogenous inflow, the central bank may sell domestic assets, increasing their supply to accommodate the initial inflow without affecting the exchange rate. Compared with unsterilised interventions, the magnitude of the reserve change needed to defend the exchange rate will be much larger.

In addition to foreign exchange interventions, other factors can also result in changes in reserve assets, such as official foreign currency borrowing, or debt repayment, or a conversion of fiscal surpluses into foreign assets. The latter is an important factor influencing movements of Hong Kong’s reserves, which will be discussed in the next section.

IV. Factors Influencing Movements in Hong Kong’s Reserves

Hong Kong’s reserves are held by the Exchange Fund and managed by the HKMA. There are three main counterparts to the reserves:

- (i) Monetary base: this comprises Certificates of Indebtedness (for backing banknote issuance) and coins; the aggregate clearing balance of the banking system (Aggregate Balance); and Exchange Fund paper.
- (ii) Fiscal reserves: the Treasury began to transfer fiscal reserves to the Exchange Fund in exchange for interest-bearing debt certificates in 1976. These reserves are repaid to the Treasury as and when required to meet the obligations of the General Revenue.
- (iii) Accumulated surplus: this represents the investment earnings of the Exchange Fund.

3 To the extent that higher interest rates lead to a reduction in the amount of liquidity demanded, the monetary base, and correspondingly the reserve level, will decline.

4 Hong Kong’s foreign currency reserves did drop in 1998 during the Asian financial turmoil. This was largely related to a sale of US dollar assets to fund the purchase of local stocks.

The assets of the Exchange Fund are managed under two portfolios, namely: the backing portfolio that holds the US dollar assets backing the monetary base; and the investment portfolio that holds the rest of the assets. Changes in reserve assets may be brought about by one of the following factors:⁵

- (i) a change in private-sector liquidity demand that affects banknotes in circulation or the Aggregate Balance;⁶
- (ii) a change in portfolio demand for Hong Kong dollars by the private sector that may necessitate the purchase or sale of Hong Kong dollars by the HKMA under the currency board arrangements, which ensure exchange rate stability; and
- (iii) a change in Exchange Fund holdings of foreign currency assets arising from fiscal transfers or transaction in domestic assets (such as the acquisition of shares during the operation of August 1998, and their subsequent disposals).

We analyse below how these three types of exogenous shocks will impact on reserves assets, financial variables, and the BoP data.

(i) *Change in liquidity demand*

Banknotes are held mainly for transaction purposes. Quantitative studies suggest that their demand is closely related to nominal GDP (which reflects transactions demand) and interest rates (which reflect the opportunity cost of holding banknotes). Suppose there is an increase in the demand for banknotes. Note-issuing banks will submit US dollars to the HKMA in exchange for CIs. Other things being equal, reserves will increase, and banks' net foreign currency assets will decline.⁷ During the Year 2000 transition, for instance, note issuance increased by HK\$26.5 billion

(around US\$3.4 billion) in December 1999. In part reflecting this, the foreign currency assets of the Exchange Fund rose by US\$4.2 billion during the month.

Note-issuing banks may let their foreign currency assets run down temporarily if fluctuations in the demand for banknotes are perceived to be transient. However, should banks aim to restore their initial foreign currency positions, there will be increased selling pressure on the Hong Kong dollar. This happened just ahead of the Chinese New Year in 1999 and 2000, when the sale of Hong Kong dollars in connection with additional note issuance triggered the convertibility undertaking, and drove the Aggregate Balance to a low level. Short-term interest rates rose in response, inducing inflows of funds. In this case, then, reserves would increase, but there would be downward pressure on the exchange rate and upward pressure on interest rates. These movements in financial variables, of course, are the opposite to what would be expected if the rise in reserves had been driven by an increase in investor demand for Hong Kong dollar assets.

Turning to clearing balances, an increase in demand will exert upward pressure on interest rates. Higher interest rates, in turn, will cause the exchange rate to appreciate. In order to limit the movement in the exchange rate, the HKMA will generally intervene by purchasing US dollars in the market and thus expanding the supply of Hong Kong dollar liquidity. Official reserves will increase, and a capital inflow will be observed in the BoP data. But the capital inflow will be induced by higher interest rates, as opposed to an exogenous shift in investor demand.

As an example, amid the Asian financial turmoil in 1997 and 1998, banks' precautionary demand for liquidity surged. At the same time, they were uncertain of their access to the Liquidity

5 In addition to the factors listed in this paragraph, changes in reserve assets may result from investment income and valuation changes. Investment income from reserves forms part of investment income reported under the current account. The effect of valuation changes on the stock of assets is not accounted for in the BoP statistics.

6 A moratorium on the issuance of Exchange Fund paper was imposed in September 1998. But starting from April 1999, the programme has been allowed to expand along with interest payments on the outstanding stock of Exchange Fund paper.

7 Although CIs can be redeemed into US dollars at a fixed exchange rate of 7.80 under the linked system, note-issuing banks generally treat them as Hong Kong dollar assets.

Adjustment Facility that existed at that time. In response, banks reduced their foreign currency positions to build up Hong Kong dollar clearing balances, the aggregate level of which rose to a record HK\$42 billion. Against a decline in portfolio demand for Hong Kong dollar assets on the back of a perceived increase in currency risk, the liquidity shock probably added to interest rate pressures on the Hong Kong dollar. (Chart 3)

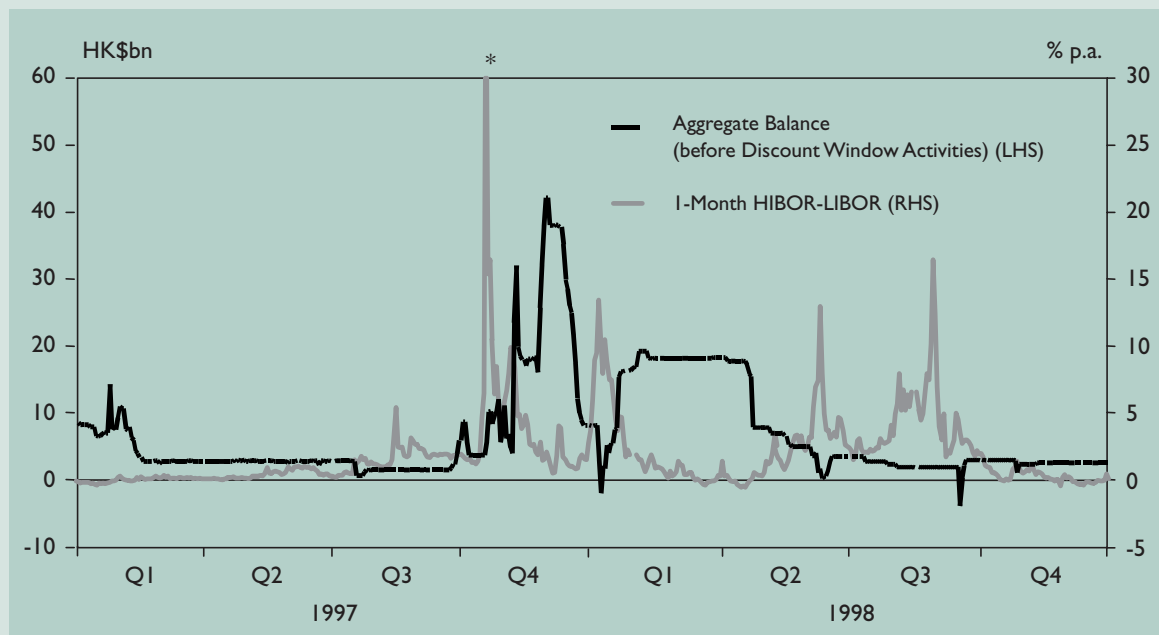
(ii) *Change in portfolio demand for Hong Kong dollars by the private sector*

Conceptually, an exogenous increase in the demand for Hong Kong dollar assets will lead to a strengthening of the exchange rate. As the HKMA sells Hong Kong dollars for US dollars to offset this pressure, both the Aggregate Balance and reserves will increase, and interest rates will fall. Conversely, if portfolio demand declines, and the exchange rate weakens to the convertibility rate, the convertibility undertaking will be triggered,

leading to decreases in both the Aggregate Balance and reserves. Interest rates will rise. These responses are consistent with the “traditional” interpretation of reserve movements.

The magnitude of the change in reserves is likely to be quite small, however, regardless of the size of the shift in portfolio demand. In particular, the longer-term level of the Aggregate Balance is largely determined by the liquidity needs of the banking system. To the extent that the convertibility undertaking is triggered by a portfolio outflow and the Aggregate Balance is reduced below the level consistent with banks’ liquidity demand, interest rates will respond sharply.⁸ Thus, adjustments to portfolio shocks mainly work through the interest rate channel. The sharp swing of interest rate differentials between the Hong Kong dollar and the US dollar, from an average premium of 330 basis points (in terms of one-month money) during the Asian crisis (1997 Q4 - 1998 Q3) to an average discount of about 30 basis

Chart 3
Aggregate Balance and Interest Rate Spreads



* 1-month interest spread rose to 39 percentage points on 23 October 1997

8 Increases in interest rates should reduce the amount of clearing balances demanded. However, demand for clearing balances is observed to be very interest-inelastic, except when interest rates are at very low levels.

points in the first ten months of 2000, reflects a significant shift in portfolio demand as investment sentiment sharply turned around.⁹ The strong rebound in share prices, increased cross-border flows to the local equity market, and steady increases in bank deposits provide evidence to support this view.

(iii) *Change in Exchange Fund holdings of US dollar assets*

Portfolio decisions made by the HKMA as the manager of the Exchange Fund will also affect the level of reserves. In practice, the HKMA does not actively trade between currencies. However, the bulk of the long-term funds held by the Exchange Fund are invested in foreign currency assets. When there are incoming funds due to fiscal transfers or share disposals, decisions must be taken as to the timing of any required switch into foreign currencies. Likewise, when the Treasury withdraws its placements from the Exchange Fund, the HKMA must determine the timing of any necessary sale of foreign currency assets; alternatively the funding need may be met by Hong Kong dollar borrowings, at least in the short term. In making the choice, the HKMA takes into account prevailing market conditions, such that any currency switches will not exert undue pressure on the exchange rate, liquidity conditions or interest rates. Take the case of the share disposal programme that started in October 1999. Some of the proceeds were used to fund fiscal drawdowns, while a considerable chunk was, over time, switched into foreign currency assets, building up official reserves. Other things being equal, this could have exerted some downward pressure on the exchange rate, or upward pressure on interest rates. Nevertheless, the currency switches took place at a time when there was a significant rise in portfolio demand for Hong Kong dollar assets by the private sector. As inferred from the negative interest rate spreads, portfolio shifts made by the HKMA only partially offset increased demand for Hong Kong dollar assets by the private sector.

V. Balance of Payments Situation in 2000: The Story Retold

The BoP statistics for the first quarter of 2000 showed an overall deficit amounting to HK\$18.2 billion, with a net private capital outflow more than offsetting a current account surplus. Official reserves decreased by the same magnitude. Most press reports noted that the BoP deficit occurred after an exceptionally large surplus in the fourth quarter of 1999. Some analysts believed that the BoP deficit could be related to net outflows preceding the stock market correction in April.¹⁰

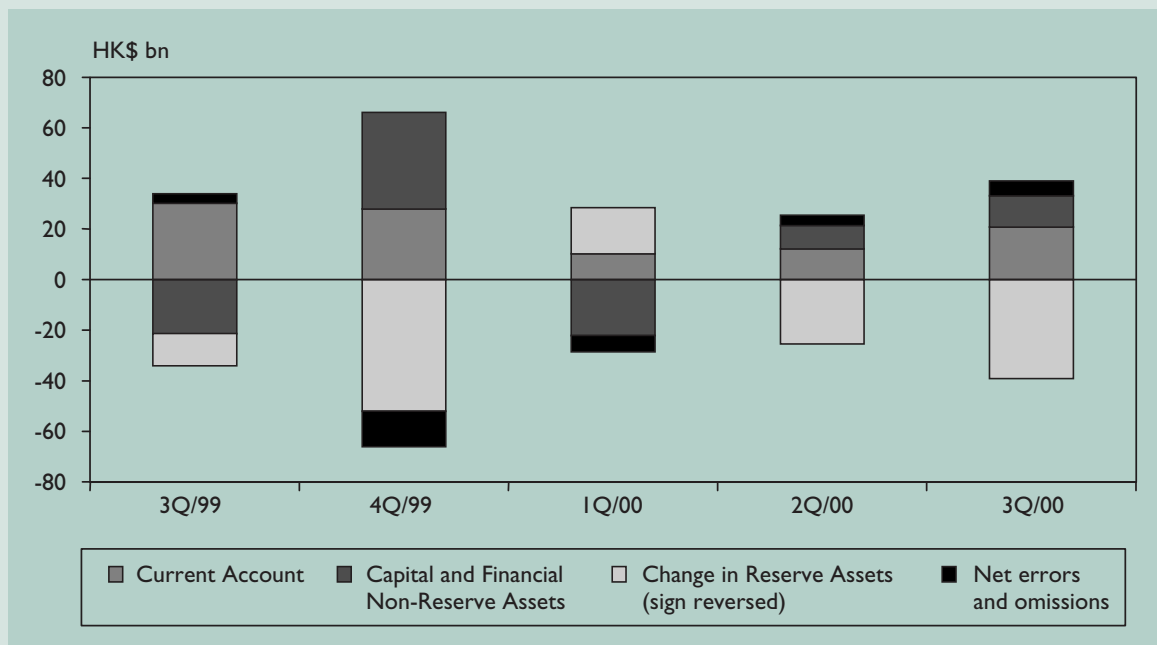
The BoP position returned to a surplus of HK\$25.4 billion in the second quarter. There was a net inflow of private capital on top of a surplus in the current account. The reversal to a BoP surplus was generally viewed as an improvement in external financial flows. A further overall surplus of HK\$39 billion was recorded in the third quarter, and this was generally regarded as a favourable position. The BoP figures for the fourth quarter of 2000 are not yet available, but the data on foreign reserves suggest another overall surplus for the quarter. (Chart 4)

As discussed in sections II and III, the overall BoP position merely mirrors changes in official reserve assets. It is important to examine the factors behind these changes to understand developments in 2000. The first quarter saw a substantial reduction in the demand for liquidity following the Year 2000 transition. Banknotes in circulation dropped by HK\$20.7 billion, while the Aggregate Balance (before discount window operations) decreased by about HK\$7 billion. Official reserves declined along with the redemption of CIs and the conversion of clearing balances into US dollars by banks. As regards other funding sources, since the tax collection season falls early in the year, there was a net fiscal transfer to the Exchange Fund during the first quarter. The Exchange Fund also received some proceeds from the disposal of shares. A considerable proportion

9 The interest rate premium in terms of one-month money surged to 3,930 basis points in October 1997.

10 See, for example, "Balance of payments in quarter hits deficit" in the *South China Morning Post*, 30 September 2000.

Chart 4
Hong Kong's Balance of Payments



Note: Negative sign for reserve assets indicates an increase in reserves.

of these receipts were used to repay Hong Kong dollar borrowing, while part of them were “parked” in Hong Kong dollar deposits. So they had little immediate effect on the official reserves position.

During the subsequent quarters, banknotes in circulation and the Aggregate Balance remained broadly stable, except for a modest rise in currency issued in the fourth quarter due to seasonal demand ahead of Christmas and New Year. In the second and third quarters, there was a net fiscal withdrawal, which was largely accommodated by proceeds from share disposals. Fiscal placements increased in the fourth quarter. Except in the first quarter, official reserves increased in all the remaining three quarters, as some of the receipts that had been parked into Hong Kong dollar deposits were subsequently switched into foreign currency. The size of reserves was also boosted by investment income, and towards the latter part of the year, by the switching of fiscal placements into foreign currency assets.

Piecing together these figures and the movements of financial variables, we can discern several points. First, liquidity demand declined notably in the first quarter after the Year 2000 transition. The redemption of excess banknotes and the switching of clearing balances into US dollars by banks led to a fall in reserves, and an increase in the US dollar assets of the banking sector. Increased purchases of Hong Kong dollars by banks to rebalance their portfolios put downward pressure on interest rates. Secondly, the demand for Hong Kong dollars was also supported by a sizeable current account surplus, which amounted to 3½% of GDP. Thirdly, contrary to the concern about an autonomous capital outflow, there was probably an autonomous *inflow* during the first quarter, as judged by movements in financial variables. Hong Kong dollar interest rates of six months or below stayed below their US dollar counterparts for most of this period. Furthermore, the Hang Seng Index surged by 12% in February and March, touching a record high of 18,302.

Anecdotal evidence also suggests a strong inflow of cross-border funds into Hong Kong's equity market from early February to mid-April.¹¹ In short, the decline in reserves was misleading as an indicator of an exogenous capital outflow from Hong Kong.

The current account surplus further surged to almost 4% of GDP in the second quarter of 2000, which helped sustain demand for Hong Kong dollars. However, although the BoP figures showed a net private capital inflow, autonomous inflows were probably less strong, and were partially offset by a switching of Hong Kong dollars into US dollars by the Exchange Fund. Consistent with these developments, local interest rates firmed slightly above US rates in April and May, before easing again in June (Chart 5). Cross-border flows into the local equity market declined considerably from mid-April to late May, and stock prices corrected by about 25% during this period. Again, the reserve movements were not indicative of autonomous private capital flows.

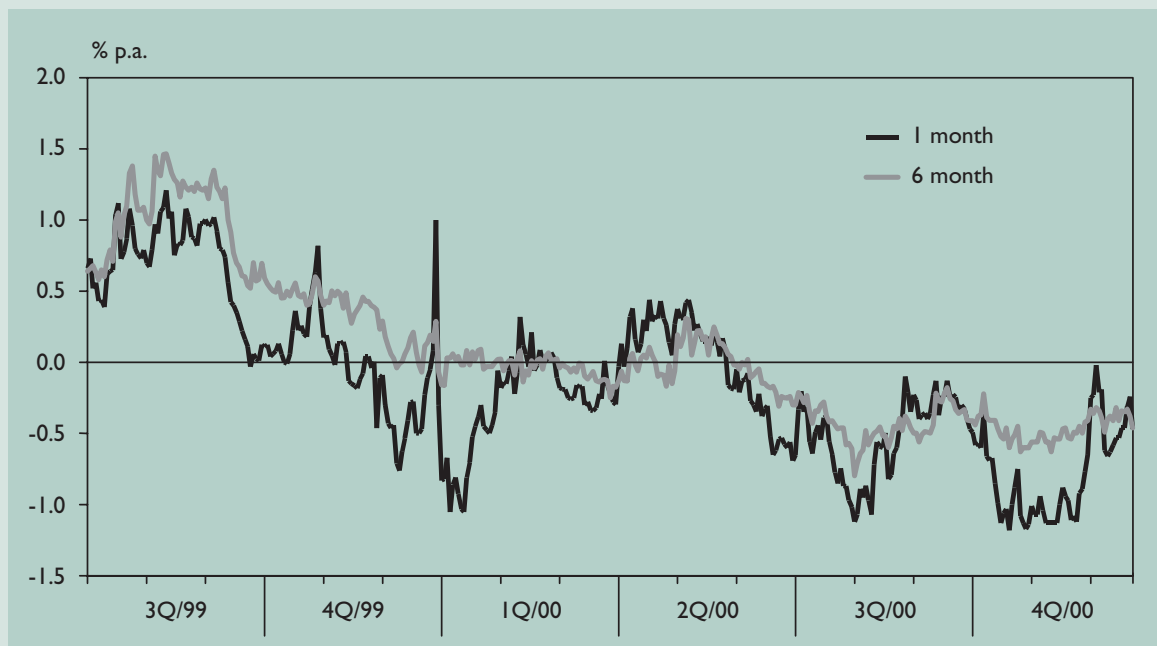
Autonomous inflows were generally strong in the second half of 2000, as evidenced by the easing

of Hong Kong dollar interest rates below their US dollar counterparts. Some inflows were probably attracted into the Hong Kong dollar towards the end of September ahead of the initial public offering of the MTRC. Anecdotal evidence further suggests that cross-border flows into the equity market picked up in November and December. Against a strong demand for Hong Kong dollar assets, the switches out of the Hong Kong dollar on the part of the Exchange Fund had no major impact on the money and exchange markets.

VI. Conclusion


This paper has examined some commonly held views in interpreting BoP statistics. We conclude that casual inferences about the nature of autonomous shocks based on ex post BoP statistics can be misleading. A private capital outflow recorded in the BoP can be compatible with an autonomous increase in the demand for Hong Kong dollar assets. Conversely, a private capital inflow can be consistent with a decline in ex-ante demand. To better ascertain the nature of these shocks, it is necessary to examine the factors

Chart 5
Hong Kong Dollar - US Dollar Interest Rate Differentials



¹¹ This is based on the information provided by State Street.

driving changes in reserve assets, as well as movements in financial variables, such as interest rates, the exchange rate, and asset prices.

This is illustrated by the specific case of developments in 2000 in Hong Kong. Reserve assets fell sharply in the first quarter before rebounding in the second quarter. Rather than representing autonomous swings in private demand for Hong Kong dollar assets, however, these reserve movements were driven by other factors. In particular, liquidity demand fell sharply in the first quarter following the Year 2000 critical period, lowering reserves. In the subsequent quarters, Hong Kong dollar assets of the Exchange Fund were switched into US dollars. The underlying nature of the shocks was revealed by movements in financial variables, which were the reverse of those that would be expected under the conventional interpretation. 

- Prepared by the Economic Research Division