

# Personal renminbi business: Will the Hong Kong dollar be marginalised?

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This article addresses the question of whether the recent introduction of personal renminbi business by banks in Hong Kong would lead to a marginalisation of the Hong Kong dollar. It concludes that it is unlikely, in the foreseeable future, that the renminbi will replace the Hong Kong dollar to any significant extent in domestic transactions.

In the longer run, when the renminbi becomes fully convertible, its use in Hong Kong is likely to grow. However, the role of the Hong Kong dollar is likely to remain significant, not least because of its legal tender status and its use for tax and other official payments.

## I. INTRODUCTION

In recent years, the renminbi has been increasingly accepted for retail transactions in Hong Kong, reflecting deepening integration with the Mainland and in particular the rising number of Mainland visitors. The introduction of personal renminbi business, including deposits, exchange services, remittance and credit card services, will lead to an increase in the use of the currency in Hong Kong, in part by reducing the transaction cost (see Table 1 for a summary of the personal renminbi business scheme). These developments raise the question of whether the role of the Hong Kong dollar will be marginalised by the renminbi. This article addresses the concern, focusing on the implications for the economic role of the Hong Kong dollar, rather than its legal status. The Basic Law stipulates that the Hong Kong dollar is the legal tender in Hong Kong. The legal tender status, however, does not prevent the use of other currencies for transactions and investment purposes.

TABLE 1

Main features of personal renminbi business

<b>Deposit accounts</b>	
<i>Hong Kong identity card holders</i>	No limit on the amount of deposits  Terms of deposits and interest rates set by participating banks
<b>Exchange services</b>	
<i>Non-renminbi deposit account holders</i>	RMB6,000 equivalent per transaction at maximum
<i>Renminbi deposit account holders</i>	RMB20,000 equivalent per person each day at maximum
<i>Others</i>	Merchants engaging in retail sales, catering, accommodation and other services related to personal consumption may exchange their renminbi receipts into Hong Kong dollars
<b>Remittance</b>	
<i>Renminbi deposit account holders</i>	RMB50,000 per person per day to a bank account under the same name on the Mainland
<b>Debit/Credit cards</b>	
<i>Mainland residents</i>	Renminbi debit and credit cards issued by Mainland banks for spending in Hong Kong
<i>Hong Kong residents</i>	Renminbi credit and debit cards issued by participating banks for use on the Mainland

The rest of the article is organised as follows. Section II considers what is meant by the renminbi substituting the role of the Hong Kong dollar, in other words, “renminbisation”, and what factors may contribute to the currency substitution. This discussion is based on experiences in other economies, in particular Macau. Section III discusses whether the renminbi will increasingly replace the Hong Kong dollar following the introduction of renminbi deposits, taking into account both the transaction and portfolio demand. For this purpose, it first reviews the current use of renminbi in Hong Kong, before considering the possible impact of personal renminbi business schemes. Section IV reviews the economic implications of renminbisation and, in particular, the question whether an increased use of the renminbi is a cause for concern. Section V offers some conclusions.

## II. THE DEFINITION OF RENMINBISATION AND CONTRIBUTING FACTORS

### What is renminbisation?

The use of renminbi in Hong Kong can take a number of forms: as a means of payment; renminbi deposits (a store of value); and renminbi denominated prices and wages (unit of account). In the light of increasing economic integration and the introduction of personal renminbi business schemes, the use of the renminbi is likely to rise. However, the role of the Hong Kong dollar will only be substantially eroded if the renminbi is used by local residents on a significant scale. The use of foreign currency by tourists (which is akin to the use of foreign currency in trade transactions) does not constitute currency substitution *per se*.

It is useful, therefore, to define renminbisation as a situation in which the renminbi is used by households and the business sector in Hong Kong to a significant extent as transaction and investment

vehicles. In particular, renminbisation is similar to dollarisation whereby a significant share of domestic residents' assets is denominated in a foreign currency. An economy is generally regarded as highly dollarised when the share of foreign currency in all deposits held by residents exceeds 30% (see Baliño et al. 1999). In these economies, foreign currencies are commonly used in domestic transactions, including financial intermediation, such that the effectiveness of monetary control is affected.

Nevertheless, in some industrialised economies, there is also a considerable degree of diversification into foreign currency deposits, reflecting in part the openness of their economies, rather than a sign of economic weakness.<sup>1</sup> In Hong Kong, foreign currency deposits currently account for about 45% of the total deposits. While data on the breakdown of resident and non-resident holdings are not available, anecdotal evidence suggests that a significant part of foreign currency deposits are held by local residents. Thus, as an investment vehicle, the Hong Kong dollar has always been used alongside other currencies. The introduction of renminbi bank deposits will offer one more option for local residents.

### Factors that determine currency and asset substitution

The experiences of other economies suggest that the currency denomination of deposits is mainly determined by risk-return considerations; and that interest rates and expected changes in the exchange rate are important factors. In many dollarised economies, the high ratio of foreign currency to total deposits is mainly a result of monetary instability, manifested in high inflation or large devaluation. However, this is not relevant in the case of Hong Kong.

Currency substitution, the displacement of the domestic currency by a foreign currency as a means of payment, mainly depends on the relative transaction costs between the two currencies. These costs appear in at least two forms. One is related to the stability of the value of a currency,

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<sup>1</sup> For example, in the UK, the share of foreign currency deposits in total residents' deposits ranged between 10-20% in the past decade.

which determines the opportunity cost of using a particular currency for payment relative to the alternative.<sup>2</sup> The other is related to the payment and settlement technologies in a general sense. A well-developed payment and settlement system will help reduce costs in large-value transactions. For currency notes, the denomination structure, portability, and quality (against counterfeit) are among the factors that determine transaction costs.

Network externalities introduce dynamics into the evolution of transaction costs. Such externalities arise because the benefits of holding the foreign currency will increase with greater acceptance of the currency as a means of payment by other economic agents. In particular, the marginal cost of transacting in foreign currency decreases along with a higher level of aggregate foreign currency holdings as well as increased experience with conducting transactions in foreign currency (see Uribe (1997) and Peiers and Wrase (1997)).

Government enforcement of the legal tender status does play a role in sustaining the use of the domestic currency. Even in episodes of hyperinflation, the domestic currency is typically not completely replaced by foreign currency, in part because the authorities require that tax and expenditure payments are settled in the local currency.

## Macau's experience

Macau presents an interesting case study for currency and asset substitution. About 50% of deposits and domestic credit, and 70% of cheques (in value terms) cleared in the Macau Clearing House are denominated in Hong Kong dollars. In the private sector, the Hong Kong dollar is widely used for payment in wages and other domestic transactions (such as property transactions and rental payments).

The wide circulation of the Hong Kong dollar in Macau is not due to high inflation, but associated

with network externalities (see Appendix A). Macau relies heavily on tourist receipts, including those from the gambling industry, and direct investment from Hong Kong. Net exports of services (including mainly tourism) account for 50% of GDP. The use of the Hong Kong dollar involves minimal exchange rate risk, given the fixed exchange rate and the practice of paying wages and rentals in the Hong Kong dollar. The transaction costs involved in using Hong Kong dollars and the Macau pataca is perhaps comparable in Macau, but the Hong Kong dollar involves a positive externality for investing in and doing business with Hong Kong.

The authorities in Macau have introduced measures to support the use of patacas. Exporters are required to convert 40% of foreign exchange proceeds from merchandise exports, but its importance in sustaining demand for the pataca is likely to be limited in view of the merchandise trade deficit. Credit card payments have to be denominated in patacas, and taxes are generally paid in the local currency, except for those on gambling which are paid in Hong Kong dollars. Liquidity management facilities in patacas have also been improved. In recent years, patacas have consistently accounted for about 30% of resident deposits in the banking system, partly because of the use of the legal tender by the public sector and the measures to promote its use. The ratio of the pataca currency to GDP (3.8% at end-2002) is comparable to that in many other economies (such as the UK).

The Macau experience illustrates, on the one hand, the close integration of a very small, open economy with a large neighbouring economy may lead to a widespread circulation of foreign currency domestically. On the other hand, despite the overwhelming influence from the Hong Kong economy (which is much larger and has major financial markets), the pataca continues to play a considerable role in the economy. In part, this is helped by the Government collecting tax receipts and paying for goods and services it acquires in the local currency.

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<sup>2</sup> Again, currency substitution in some developing economies is associated with monetary instability as reflected in frequent and large devaluations.

### III. WILL THE INTRODUCTION OF PERSONAL RENMINBI BUSINESS SCHEMES IN HONG KONG LEAD TO RENMINBISATION?

Concerns about the impact of renminbi business on the demand for the Hong Kong dollar arise partly because the renminbi is increasingly accepted in Hong Kong for transactions at the retail level. It is, therefore, useful to first review the current situation. As banks are allowed to take renminbi deposits in Hong Kong, domestic residents will have an additional choice of currency in their portfolio decisions. The issuance of renminbi credit cards will also facilitate transactions denominated in renminbi. Transaction costs involved in renminbi payments in Hong Kong are thus likely to decline. To what extent these may raise the transaction and portfolio demand for renminbi in Hong Kong is considered below.

#### The current situation

It is useful to distinguish the transaction demand for renminbi for various purposes: (a) Mainland visitors spending in Hong Kong; (b) Hong Kong residents spending on the Mainland; and (c) Hong Kong residents spending in Hong Kong. The transaction demand arising from travel (i.e. (a) and (b)) does not constitute currency substitution. But a substantial use of renminbi by local residents will erode the role of the Hong Kong dollar in Hong Kong.

In recent years, an increasing number of retail outlets in Hong Kong, especially those with a significant share of earnings from Mainland tourists, accept payment in renminbi. Two factors explain this. First, the number of Mainland visitors has increased rapidly, particularly following the gradual relaxation of restrictions. In 2002, they accounted for over 40% of total visitors. Secondly, most Mainland visitors are constrained in the choice of payment means, particularly because of the lack of credit cards. However, the use of renminbi by Mainland visitors is no different from the use of US dollars by foreign

visitors in some retail outlets, although the scale is much larger and more visible.

While Hong Kong residents who visit the Mainland frequently are likely to hold the renminbi for transaction purposes, they account for a relatively small share of the population. A survey, conducted in 2001, suggests that some 496,300 persons (7% of total population) travelled at least once a week across the boundary.

At present, however, there is little domestic use of renminbi among Hong Kong residents. This differs from some neighbouring economies of China, such as Mongolia, where renminbi is reportedly used extensively among local residents because of the relatively unstable value of the domestic currency.

Indeed, notwithstanding increased acceptance of renminbi payments in retail outlets in the past few years, the outstanding amount of Hong Kong dollar currency notes has registered strong growth. This contrasts with the weak growth in Hong Kong dollar broad money and sluggish domestic economic activity. While the low interest rate environment has played a role, there also appears an increased demand for Hong Kong dollar currency on the Mainland. This development reflects a combination of factors, including socio-economic integration, the non-convertibility of the renminbi, the relatively large denominations of the Hong Kong dollar, and some relaxation of the foreign exchange transaction rules by Mainland authorities (Peng and Shi, 2002).<sup>3</sup>

#### Possible impact of personal renminbi business

The decline in transaction costs involved in renminbi payments may have two opposing impacts on the use of renminbi cash. Domestic retail outlets may accept renminbi credit card payments made by Mainland tourists, which would probably substitute, to some extent, the use of renminbi cash. According to China Unionpay (the sole bankcard brand on the Mainland), there are 569 million bankcards carrying the CUP logo, out of which 25 million are credit cards and 544 million are debit cards. An increased

<sup>3</sup> Appendix B reviews recent developments.

use of renminbi credit cards in lieu of cash would reduce the need for domestic retail outlets to hold renminbi for transaction purposes, and lower their exchange rate risk. However, the reduced transaction cost may induce domestic retail outlets to become more willing to accept renminbi cash. In addition, the Mainland is still a cash-based economy and Mainland visitors may prefer cash to credit card payment.

As for domestic residents, the availability of renminbi deposits and credit cards will reduce the costs of using the renminbi as a means of payment in Hong Kong.<sup>4</sup> In particular, there may be a dynamic process whereby the increasing convenience of using renminbi in both Hong Kong and the Mainland will raise the demand for the currency in Hong Kong. In particular, as economic integration intensifies, the network externality of using the renminbi is likely to grow.

Nevertheless, a number of factors favour the use of the Hong Kong dollar for domestic transactions, and its role is unlikely to be eroded in the foreseeable future:

- *The sound record of monetary stability in Hong Kong* — The stable value of the Hong Kong dollar, which is backed by the US dollar, and its full convertibility provide a solid basis for its continuous use in Hong Kong.
- *Exchange rate risk* — As most domestic cost/ prices are likely to continue to be denominated in Hong Kong dollars, the use of the dollar provides a natural hedge against any potential change in the exchange rate between the renminbi and the Hong Kong dollar.
- *The well-developed payment systems in Hong Kong dollars at both retail and wholesale levels* — The cost involved in Hong Kong dollar transactions is likely to remain much lower than that for the renminbi. Large-value transactions in renminbi are constrained as there is no

parallel development for renminbi cheques and electronic transfers in Hong Kong. In terms of cash, the relatively large denomination of the Hong Kong dollar currency gives it an advantage over renminbi in terms of portability. The use of renminbi cash involves other transaction costs such as quality assessment, especially against counterfeit notes.

The portfolio demand for renminbi deposit holdings is largely determined by risk-return considerations, including interest rate differentials, exchange rate expectations and the ease of switching between the renminbi and the Hong Kong dollar. The expectation of an appreciation of the renminbi may trigger some short-term interest in the currency. It is unclear whether this will lead to a significant, permanent shift from the Hong Kong dollar into the renminbi because exchange rate expectations may change over time. In particular, there remains considerable uncertainty over the exchange rate regime for the renminbi in the medium to long term.

Two structural factors are also likely to limit the possible scale of diversification to renminbi denominated assets in the foreseeable future. First, the capital and exchange controls on the Mainland will limit renminbi outflows. Secondly, large and developed financial markets including well-developed payment and settlement systems in Hong Kong help maintain the Hong Kong dollar's role as an investment currency. In this respect, the US dollar has advantages over renminbi as an alternative (to the Hong Kong dollar) investment vehicle. These include the existence of a wide spectrum of US dollar financial assets globally (including stocks, bonds, and insurance products), and US dollar infrastructure such as the US dollar Real Time Gross Settlement System (RTGS) in Hong Kong.

#### IV. ECONOMIC IMPLICATIONS OF RENMINBISATION

The availability of renminbi deposits in Hong Kong will increase choices for consumers and firms. Holding more renminbi will be an unambiguous indication that their welfare has risen. Therefore,

<sup>4</sup> It should be noted that the holding of renminbi deposits by Hong Kong residents may reduce their demand for renminbi cash for spending on the Mainland, by raising the velocity of renminbi currency notes in Hong Kong.

from this perspective, the decline in the use of the Hong Kong dollar will not constitute a concern.

Welfare improvements will be manifested in at least two aspects. First, the transaction costs involved in the use of renminbi for both domestic residents and Mainland tourists will fall. Secondly, it will facilitate economic integration with the Mainland. This will improve the efficiency of resource allocation in the greater China economy and will be beneficial to Hong Kong. It should be noted that the economic significance of reduced transaction costs increases alongside the relaxation of travel restrictions from the Mainland to Hong Kong. As shops receive more renminbi cash, it is important to establish an efficient channel for converting the receipts into Hong Kong dollars. Otherwise, the transaction costs involved in accepting renminbi payment may be shifted to tourists. In addition, when shops can accept renminbi credit cards, the exchange rate risk and other risks associated with accepting renminbi cash will be reduced.

Alongside the increased convenience for Mainland visitors to use renminbi (cash and credit cards) in Hong Kong and Hong Kong residents on the Mainland, the demand for Hong Kong dollar holdings for travelling purposes may fall and a loss of seignorage may be incurred. However, the loss is likely to be relatively small compared with the economic gains noted above.

## V. CONCLUSION

The availability of renminbi deposit, exchange and card services is unlikely to lead to a marginalisation of the Hong Kong dollar in the foreseeable future. A number of factors suggest that the Hong Kong dollar will still be the major medium of exchange domestically, including the long history of using the Hong Kong dollar, and a sound record of monetary stability in Hong Kong. The well-developed Hong Kong dollar payment systems at both retail and wholesale level, coupled with the absence of exchange regulations and capital controls, suggest that the transaction costs involved in using the Hong Kong dollar will remain lower than that for the

renminbi. Unlike Macau, Hong Kong is a much bigger economy. The market capitalisation of the stock market is comparable with that of the Shenzhen and Shanghai exchanges combined. For these and other reasons, the role of the Hong Kong dollar is unlikely to diminish substantially.

In the long term, when the renminbi becomes fully convertible and funds can flow freely into and out of the Mainland, the network externalities may increase and transaction costs involved in using renminbi and Hong Kong dollars may become comparable. As a result, the degree of renminbisation may grow. Nevertheless, the Hong Kong dollar will not disappear, not least because of its legal tender status and its use for tax and other payments by the government and public bodies. This is well illustrated by the example of Macau, which sustains a considerable share of pataca-denominated deposits even though it is a very small economy with no major financial markets. Even if the renminbi is increasingly used in Hong Kong, such a market-driven process should enhance resource allocation and improve the welfare of Hong Kong residents. In particular, it facilitates economic integration between Hong Kong and the mainland of China.

## APPENDIX A

### THE USE OF THE HONG KONG DOLLAR IN MACAU

This Appendix reviews the extent to which the Hong Kong dollar is used in Macau and examines factors contributing to its circulation.

The Hong Kong dollar is used not only as a medium of exchange, but also a unit of account and a store of value in Macau. It accounts for around half of total demand deposits, broad money, and domestic credit (Table A1 and Chart A1).<sup>5</sup> Automatic teller machines in Macau dispense both Hong Kong dollars and pataca (MOP) notes. Most large-value transactions (such as durable goods and mortgages) and salaries paid by some private companies are also denominated in Hong Kong dollars.

Unlike other highly dollarised economies, the extensive presence of the Hong Kong dollar in Macau is not due to currency instability, but a combination of economic and historical factors:

*Close economic ties* — Macau has a close economic and financial relationship with Hong Kong. During the 1970s and 1980s, the Macau economy relied on industrial enterprises, particular on textiles and garments, relocated from Hong Kong. Since the early 1990s, its economy has become more tourist-oriented. Tourism receipts (including gambling) account for 60% of GDP. Over 40% of visitors come from Hong Kong, so most of the earnings are denominated in Hong Kong dollars. Some 70% of FDI in Macau comes from Hong Kong and many households have members working

in Hong Kong. About 70,000 Macau-born people live in Hong Kong, which is equivalent to 16% of Macau's population of 435,000. Outward portfolio investment in Hong Kong is likely to be significant, especially in view of the absence of well-developed financial markets in Macau.

*Minimal exchange rate risk* — There is no issue of exchange rate risk to the extent that an agent has its costs and earnings all denominated in Hong Kong dollars. The pataca-Hong Kong dollar link also facilitates the use of the Hong Kong dollar. Since 1977, the pataca has been pegged to the Hong Kong dollar, at a rate of around 1:1, under a currency board arrangement.<sup>6</sup>

*Robust infrastructure for the Hong Kong dollar* — The well-established banking and payment systems in Hong Kong minimises the transaction costs involved in using the Hong Kong dollar. The absence of capital controls in Hong Kong also facilitates its circulation abroad. Hong Kong dollar bills have been cleared via the Macau branch of the Bank of China since the early 1980s.<sup>7</sup> Following the establishment of the Macau Clearing House in 1999, which is monitored by the Monetary Authority of Macau, the Bank of China Macau branch remains the settlement bank for Hong Kong dollars in the clearing house.

*Historical dominance of the Hong Kong dollar* — The Hong Kong dollar was

<sup>5</sup> There are no statistics on the amount of Hong Kong dollar cash in circulation in Macau. Nevertheless, Chan (2002) estimated that around HK\$1.97 billion (equivalent to MOP2.03 billion) circulated in Macau during 1988-97. This compared with around MOP2 billion of outstanding pataca in circulation.

<sup>6</sup> The central rate is 1.03 pataca per Hong Kong dollar.

<sup>7</sup> Each bank in Macau has to maintain a Hong Kong dollar account with the Bank of China in Macau. When banks in Macau have a negative Hong Kong dollar balance with the Bank of China, they have to arrange and/or remit Hong Kong dollars through the Bank of China in Hong Kong for accounts in Macau's Bank of China.

introduced earlier (in 1865) than the Macau pataca (1905). The former has gained wide acceptance in Guangdong area including Macau. By the time Macau introduced its own currency, residents were accustomed to using the Hong Kong dollar and continued to hold substantial amounts in their portfolios (Ho, 2003).

However, the wide circulation of the Hong Kong dollar does not fully displace the use of the local currency. The share of patacas in total broad money has remained generally stable for the past two decades, ranging within 20-30%. The share of patacas in narrow money (i.e. cash plus demand deposits) has increased notably in recent years, in part associated with the promotion of the use of patacas by the Macau authorities in recent years. For example, to encourage local currency circulation, the Macau Government in 1993 passed an ordinance requiring local businesses to list prices of goods in patacas. There are also provisions to make compulsory use of the pataca in payments made by credit cards and similar transactions. The outstanding pataca in circulation relative to GDP is close to that in developed countries such as Australia and the UK (Table A2).

TABLE A1

Indicators of use of Hong Kong dollar (HKD) and Macau pataca (MOP) in Macau

in % of Total (%)	1990	2002
HKD denominated cheques <sup>(1)</sup>	71	70
MOP denominated cheques <sup>(1)</sup>	29	30
HKD demand deposits	62	55
MOP demand deposits	37	44
HKD M1	46	37
MOP M1	53	62
HKD M2	49	52
MOP M2	23	28
HKD Loans and advances	71	50
MOP Loans and advances	15	45

<sup>(1)</sup> 1989 and 2000 data.

Source: Monetary Authority of Macau.

TABLE A2

A comparison of currency-to-GDP ratio

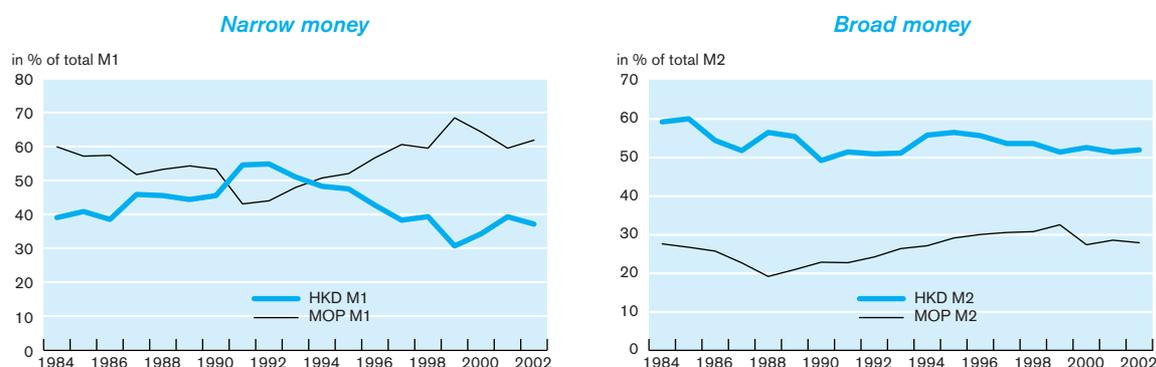
	Currency in % of GDP (%)
Macau	3.8
Hong Kong	9.9
Korea	4.1
Malaysia	7.5
Taiwan	7.2
Australia	4.0
UK	3.7

Note: Currency refers to notes and coins in circulation.

Source: CEIC and central bank websites.

CHART A1

Narrow and broad money of Macau by Hong Kong dollar and Macau pataca



Note: Figures prior to 1984 are not available.

Source: Monetary Authority of Macau

## APPENDIX B

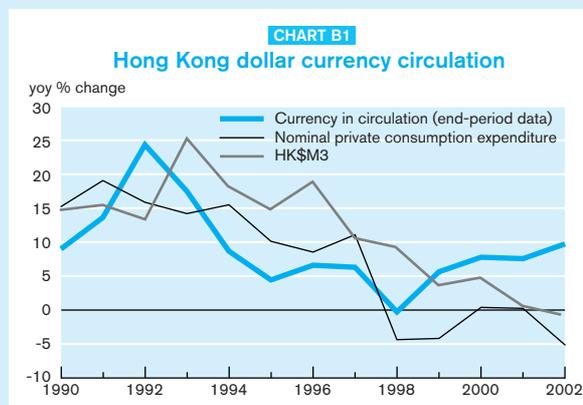
### RECENT DEVELOPMENTS IN DEMAND FOR HONG KONG DOLLAR CURRENCY

The strong rise in the Hong Kong dollar currency in recent years contrasts with subdued growth in broad money and a generally weak level of domestic economic activity (Chart B1). The low interest rate of the Hong Kong dollar cannot fully explain the rise in the currency. The demand for the Hong Kong dollar currency on the Mainland appears to have increased in recent years despite a stable renminbi, which is increasingly accepted by retail outlets in Hong Kong.<sup>8</sup> The external demand for Hong Kong dollar currency is attributable to a combination of factors, discussed as follows.

First, renminbi is still not freely convertible into other currencies, and there are controls on capital and financial account transactions by the Mainland authorities. Holdings of Hong Kong dollar banknotes — a convertible, stable currency — represent a means of accumulating foreign assets for some individuals and business firms on the Mainland.

Secondly, an increasing number of Hong Kong enterprises operate on the Mainland; and there is a rising number of Hong Kong residents who either live or frequently travel to the Mainland.<sup>9</sup> For these people, the use of the Hong Kong currency remains the preferred means of transaction reflecting the exchange controls on the renminbi.

Lastly, some regulatory changes on the Mainland have possibly also facilitated the increased use of Hong Kong dollar banknotes. Foreign invested enterprises on the Mainland are now allowed to use their renminbi earnings to buy Hong Kong dollars from banks to pay the salary and other living expenses for their foreign employees. In addition, more domestic banks on the Mainland are allowed to conduct foreign exchange transactions. Also, foreign banks are permitted to conduct such business not only with foreign-funded enterprises as in the past, but also with Mainland enterprises and residents. These imply that demand by banks for Hong Kong dollar vault cash has increased to meet daily transaction needs on the Mainland.<sup>10</sup>



Note: Currency in circulation for 1999 was adjusted for the Y2K effects.

<sup>8</sup> Informal information from some major banks suggests that their transfer of Hong Kong dollar cash across the boundary changed from a net inflow to Hong Kong three to four years ago to a net outflow currently, indicating increased demand from the Mainland.

<sup>9</sup> According to a recent survey conducted by the Planning Department, some 41,300 Hong Kong residents are living on the Mainland. Of the total, around 95% of them were living in Guangdong Province and 78% of them were

“required by work”. Another survey conducted in 2001 suggested that some 496,300 people travelled frequently, at least once a week, across the boundary for various purposes, including business, work, leisure and visiting family members. The numbers represented an increase of 35% over that of the 1999 survey. Most of them travelled to Guangdong (Shenzhen, Dongguan and Guangzhou).

<sup>10</sup> This point was made by banks that have considerable foreign exchange transactions on the Mainland.

In summary, apart from the low interest rate, the increase in demand for Hong Kong dollar cash is attributable to the economic integration of Hong Kong and the southern China region, the non-convertibility of the renminbi and the relatively larger denominations of Hong Kong dollar banknotes. Empirical estimates suggest that a significant amount of Hong Kong dollar currency — in a range of 15-25% (or around HK\$15-25 billion) — is currently circulating outside Hong Kong (Peng and Shi, 2002).

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