

# The Bet of HK Currency Board System: Peg to US Dollar Gives Way to Peg to RMB

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**Abstract.** Given that the exchange rate of Hong Kong Dollar (HK Dollar) has repeatedly touched the exchange guarantee of the weak and the strong side during recent years beginning from 2008, some scholars began to hold suspicion to its stability. After studying the economic fundamentals, among them the nominal GDP growth rates and inflation rates, the author found that there are endogenous contradictions in economic basis between Hong Kong (HK) and the United States (US), making the linked exchange rate system expose its underbelly. This paper aims to explore the possibility that HK Dollar turns to peg to renminbi (RMB) by studying economic interactions between mainland China and Hong Kong. With the purpose of providing a clear vision in studying how the economic interactions have impacts on their capital flux, and how the mass of capital floods therefore affects the possibility of the peg of the two currencies, this study attempts to divide economic exchanges into direct and indirect factors, the former including goods trade, tourism services and direct investment and the latter mainly including entrepot trade. Based on the detailed data analysis, this research arrives at the conclusion that HK Dollar should peg to RMB also by conceiving the internationalism of RMB as the booster.

**Keywords:** Linked exchange rate system, HK Dollar, US Dollar, RMB, Trade.

## 1. Introduction

The development of Hong Kong's monetary system has experienced the silver standard period, the British pound peg period, and the current linked exchange rate system (LER) peg to the US Dollar. Seeing the Hong Kong Dollar continue to depreciate, the Hong Kong Government announced on October 15, 1983 an exchange rate policy to stabilize the Hong Kong Dollar at HK \$7.8 per US Dollar, 0.05 deviations added 2005 onwards. (Shen, Yu & Jing 2009: 34) From 1984 to 2007, Hong Kong's linked exchange rate system worked well on the whole. However, since 2008, the fluctuation of the Hong Kong Dollar exchange rate has intensified, the exchange rate repeatedly touched the exchange guarantee of the weak and the strong side. Frequent fluctuations have call into question the sustainability of the Hong Kong Dollar's peg to the US Dollar. In fact, from the perspective of economic fundamentals, the maintenance of the linked exchange rate system requires the simultaneous economic development of the two economies. However, data show that the economic cycles of the United States and Hong Kong differ significantly, which unequivocally embodies the inherent instability of the system. Shen et al. (2009) believes that a small open economy like Hong Kong has no ability to earn foreign exchange continuously and stably, nor to avoid currency turbulence, so it has no choice but to link its currency with its major trading partners. (54) Since Hong Kong's return, mainland China has always been Hong Kong's largest trading partner. Direct economic exchanges, including trade in goods, tourism and other services, and indirect economic exchanges, including carrying trade, have not only created a large amount of economic income for both places, but also promoted the circulation of capital between them. This undoubtedly makes more scholars turn to the discussion on the possibility that Hong Kong Dollar peg to RMB. (Ding & Chen 2002; Cui & Xiao 2021) In 2015, the International Monetary Fund (IMF) announced that RMB would officially join the Special Drawing Rights (SDR) in 2016, marking that RMB became the fifth SDR basket currency alongside US Dollar, euro, pound and Yen. The initial achievements in the process of RMB internationalization gradually reflect the edges of Hong Kong's peg with RMB.

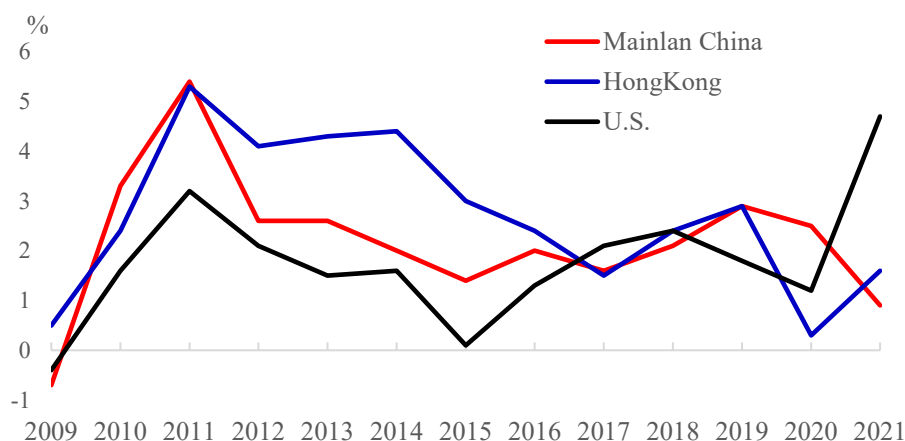
## 2. The Conflict: Economic Base Differentiation between HK and US

### 2.1 Not Met the Required Consistent Business Cycles

The increasing economic base divergence between Hong Kong and the US along with the same monetary policy required by linked exchange rate system will leave Hong Kong languish in the contradiction. To maintain a fixed exchange rate, Hong Kong needs to be aligned with monetary policy of the US, which is set concerning less with other countries or regions involved than with itself. As a result, when Hong Kong's economic cycle diverges from that of the US, monetary policy exacerbates economic conditions. For example, when Hong Kong's economy is overheating and inflation is high, and the US economy is contracting, the Fed's interest rate cut will aggravate inflation in Hong Kong, and vice versa. Also, in terms of nominal GDP growth, the correlation between Hong Kong and the US was 0.58 from 2000 to 2009, and fell to 0.22 after 2010. (Cui & Xiao 2021:86) In fact, a pivotal reason for the divergence of economic cycles between Hong Kong and the United States is the increasing importance of the mainland China to Hong Kong's economy, while the divergence of economic cycles between China and the United States occurs. During the ten-year period from 2000, compared with the nominal GDP growth correlation between HK and US, the counterpart between HK and mainland China was 0.80, which, 2010 onward, still remained 0.61, far higher than -0.03, the correlation between HK and US then. The sharp decline (from 0.22 to -0.03) in the correlation of business cycles will largely lead to chaos in Hong Kong's economy. The Hong Kong government could either implement a consistent monetary policy and bear the aggravation of the economic situation, or choose to implement part of it and bear the fluctuation of the exchange rate. Therefore, one fundamental factor to maintain the peg is the consistent business cycles.

### 2.2 Not Met the Required Consistent Business Cycles the Highly Correlated Inflation Rates

While similar business cycles per se are of inefficiency to stabilize the exchange rate system, similarity of inflation is also required. Harberler (1970) proposed to take the similarity of inflation rate as the standard to measure the optimal currency area, and they reckoned that the inflation difference was the main reason causing the imbalance of international payments and exchange rate fluctuation. (125) Therefore, the less consistent trend of inflation rate in two countries or regions is, the lower possibility of exchange rate to remain fixed will be.



**Figure 1. Inflation Rates Comparison**  
(Source: Wind)

As shown in the chart 1, since 2009, Hong Kong's inflation rate correlations with mainland China and with the US have been 0.65 and 0.24 respectively. Obviously, because of the insufficient inflation rate correlation between Hong Kong and United States, the linked exchange system of HK suffered great defects. Through above analysis, it can be seen that the peg to the US Dollar is in conflict with basic economic differentiation between HK and US, and that predicated upon the relatively consistent economy development between Hong Kong and mainland China, HK can try annulling the peg to US Dollar and pegging to the yuan.

### 3. The Cornerstone: Closer Economic Interaction between HK and Mainland China

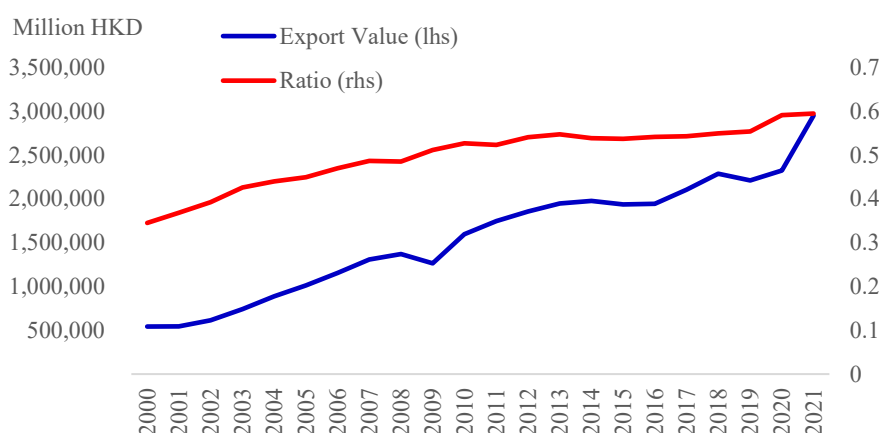
Since Hong Kong returned to China, the economic interactions between the two places have become closer and the two-way circulation of Hong Kong Dollar and RMB has provided conditions for Hong Kong Dollar to peg to RMB. The economic exchanges between the two can be divided into direct and indirect economic exchanges. While the former mainly includes goods trade, tourism services and direct investment, the latter mainly includes entrepot trade and financing platform provided by Hong Kong for the mainland.

#### 3.1 The Increasing Direct Economic Exchanges Facilitating the Capital Flux and Thus the New Peg System

Trade in goods and services and direct investments are major direct economic exchanges. Normally, the more exchanges that are direct are, the more frequently the capital flows, and the larger likelihood of successful pegging system is. In 2003, HK and mainland China signed the Closer Economic Partnership Arrangement (CEPA), which has been constantly revised, in order to establish institutional cooperation and to enhance Economic and trade exchanges between them.

##### 3.1.1 Trade in Goods

On December 14, 2018, mainland China and Hong Kong signed the CEPA Agreement on Trade in Goods, a sub-agreement of CEPA, upgrading CEPA together with the CEPA Trade in Services Agreement, CEPA Investment Agreement and CEPA Economic and Technical Cooperation Agreement. The zero-tariff agreement on trade in goods under CEPA has lowered the cost of exports of Hong Kong products to the mainland, thus enhancing the price competitiveness of exports to the mainland and stimulating the growth of exports of Hong Kong products to the mainland. As can be seen from chart 2, the amount of Hong Kong's export to the mainland continues to rise, from hovering at HK \$500 billion before signing CEPA to nearly exceeding HK \$3000 billion in 2021, and the ratio of the Hong Kong's export towards the mainland to the Hong Kong's total export also increases steadily, up from 30 percent in 2000 to 60 percent in 2021. The mainland has become an important market for Hong Kong's exports. The volume of export from China to Hong Kong also rose rapidly during this period. Among them are goods exports, which increased from 46 billion dollars in 2001 to nearly 400 billion dollars.



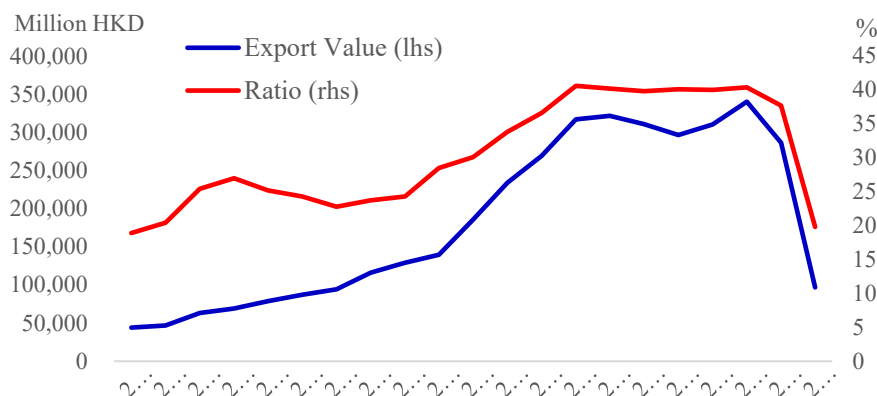
**Figure 2.** Goods Export from Hong Kong to Mainland China (Value and Ratio)

(Source: <https://www.censtatd.gov.hk/sc/>)

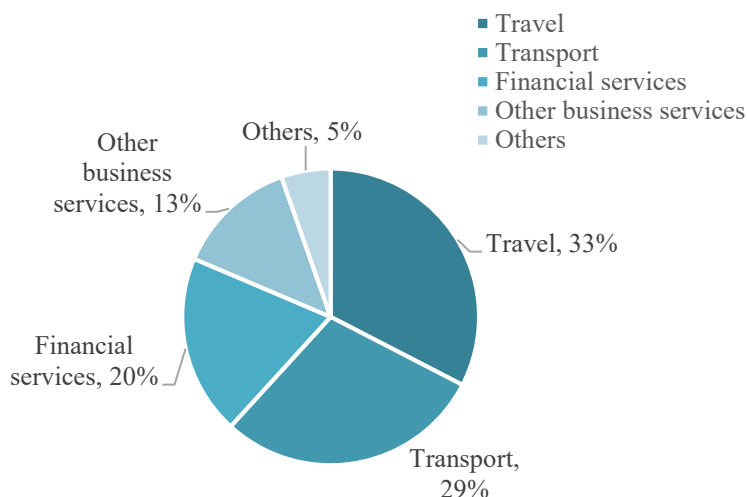
##### 3.1.2 Trade in Services

From the perspective of trade in services (See Figure 3), Hong Kong's export of trade in services to the mainland continued to rise and reached its zenith of HK \$340 billion in 2018 before the service trade was severely hit by the COVID-19 epidemic. And the ratio of exports of services to the mainland

once increased to 40%. It can be seen that since Hong Kong's return, with the promulgation and promotion of CEPA, Hong Kong's trade with the mainland has increased significantly in both amount and proportion.



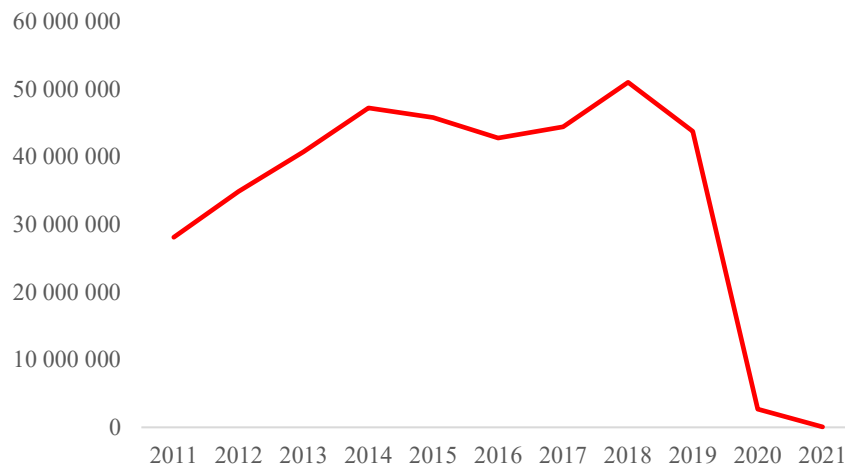
**Figure 3.** Service Export from Hong Kong to Mainland China (Value and Ratio)  
(Source: <https://www.censtatd.gov.hk/sc/>)



**Figure 4.** Shares of Service Component of Services Exports in 2018  
(Source: <https://www.censtatd.gov.hk/sc/>)

As can be seen from Figure 4, tourism services and transportation are the two most crucial service exports of Hong Kong, among which transportation includes passenger and goods transportation activities and is also related to tourism services. The main trade volume of tourism services exported from Hong Kong to mainland China increased from 14.693 billion Hong Kong dollars in 1999 to 197,846 billion Hong Kong dollars in 2016. During the same period, the proportion of the trade volume of services exported from Hong Kong to mainland China increased from 22.11% to 66.76%, and the peak (inflection point) reached 75.22% in 2013. Taking the implementation of CEPA as the time cut-off point, the trade volume of Hong Kong's services exports to mainland China has increased rapidly since the implementation of CEPA, mainly in tourism services. As can be seen from chart 5, the number of tourists from mainland China to Hong Kong also showed a trend of steady increase before the epidemic, exceeding 50 million in 2018. In terms of the source of Hong Kong's service imports, mainland China has long been the main source of Hong Kong's service imports. Hong Kong's trade in services originating in the mainland increased from HK \$152.47 billion in 1995 to HK \$220.97 billion in 2016, peaking at HK \$291.55 billion in 2008. Therefore, the value of trade in goods and in services shows that trade in goods is the main body of trade between mainland China and Hong Kong, while trade in services accounts for a relatively small proportion, and that trade in

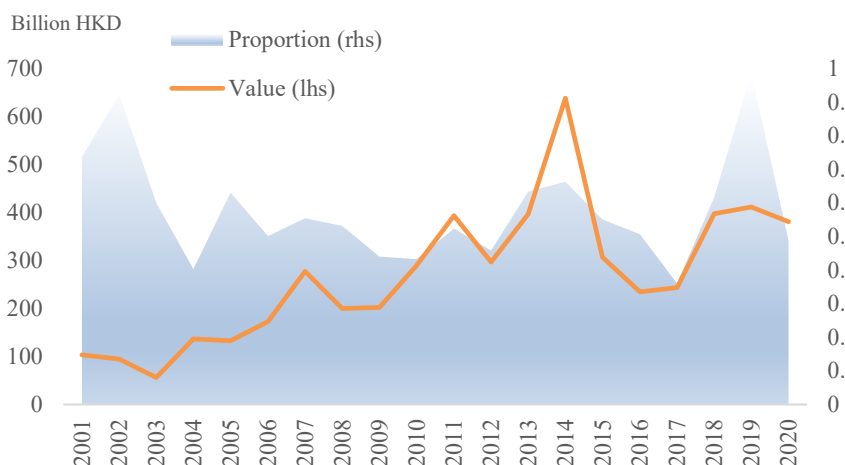
goods and services (especially tourism services) has led to massive capital flows between the two places.



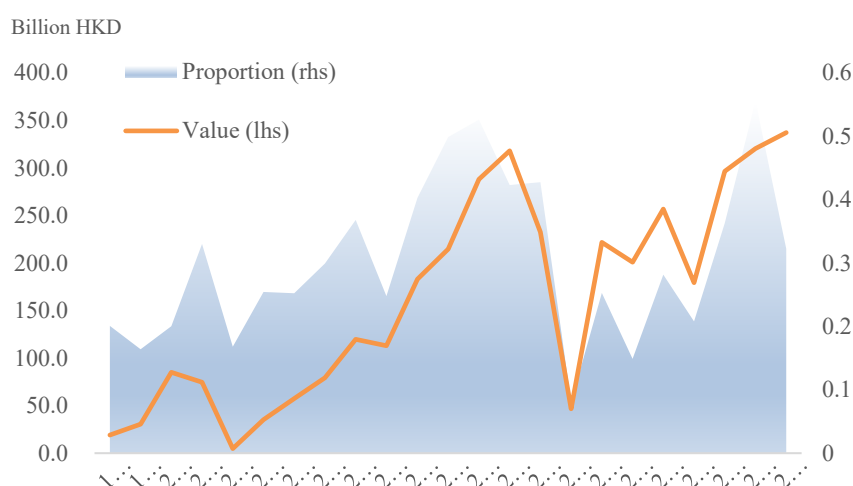
**Figure 5.** Number of Mainland Chinese Visitors to Hong Kong  
(Source: <https://www.censtatd.gov.hk/sc/>)

### 3.1.3 Direct Investment

In addition to tourism services, the most important part of trade in goods and services, there is also a nonnegligible part-direct economic exchanges between the two places-namely direct investment. As can be seen from charts 6 and 7, the direct investment from Hong Kong to the mainland of China has been rising sharply since 2003, reaching the highest point of HK \$637.9 billion in 2014, and the proportion has been as high as 60% or more. Before 2011, the direct investment from mainland China to Hong Kong maintained a straight rise, and then showed an overall upward trend after a downward from 2011 to 2013. In 2019, mainland Chinese direct investment in Hong Kong accounted for more than 50% of the total foreign direct investment in Hong Kong. According to China's Ministry of Commerce, Hong Kong's direct investment to the mainland reached \$96.3 billion in 2019, and its share of the mainland's direct investment inflow averaged about 55% from 2003 to 2019. In 2019, China's direct investment in Hong Kong reached \$90.6 billion, and Hong Kong accounted for more than 50% of China's direct investment outflow on average from 2003 to 2019. (Yuan, Li & Zhou 2019:27)



**Figure 6.** Hong Kong's ODI to Mainland China (Value and Proportion)  
(Source: <https://www.censtatd.gov.hk/sc/>)



**Figure 7.** Hong Kong's FDI from Mainland China (Value and Proportion)  
(Source: <https://www.censtatd.gov.hk/sc/>)

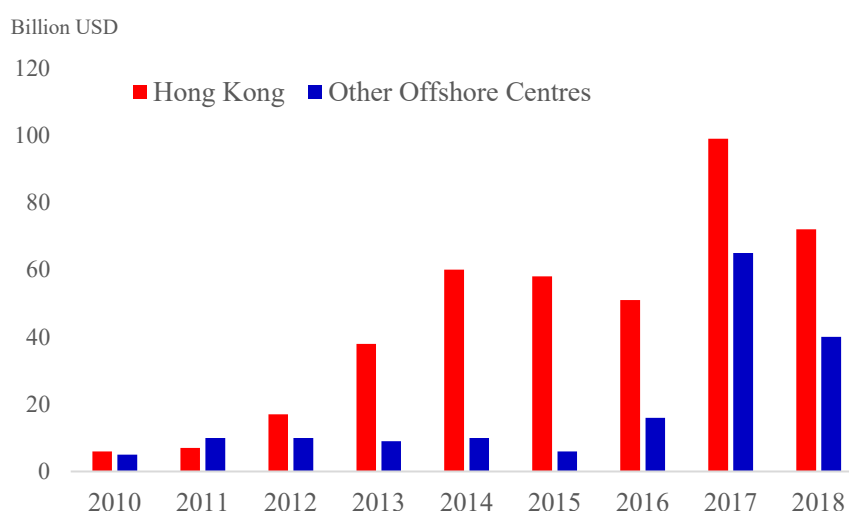
Therefore, in terms of direct economic exchanges, regardless of being affected by the epidemic and financial crisis, there are more and more carrying trade and direct investment activities between HK and mainland China, the resulting large-scale capital flow laying the foundation for the dual currency peg.

### 3.2 The Increasing Indirect Economic Exchanges also Playing an Important Role in Promoting the Capital Flow

Hong Kong, as a window between China and the rest of the world, has also created a large number of indirect economic exchange activities between China and HK. The indirect economic ties, as previously mentioned, mainly encompass entrepot trade and financing platform for the mainland. Traditional methods to calculating the contribution value of Hong Kong's entrepot trade services and financing platform to the mainland mainly focus on the trend of Hong Kong's entrepot trade in the proportion of China's import and export, the amount of entrepot trade, and the number of initial public offerings and financing of Chinese mainland enterprises in Hong Kong. Pan (2021), however, proposed a new calculation method of intermediary commission in order to assess more accurately the contribution of Hong Kong as a middleman in mainland China and the international market. Pan calculates the commission level that Hong Kong obtains from enterprise trade with mainland China and the commission that Hong Kong obtains from providing financial services to enterprises in mainland China according to different profit margins. It is concluded by pan that Hong Kong's economic contribution, as measured by the commission it earns as an intermediary, grew steadily over the two decades from 1998 to 2018. (175)

## 4. The Final Booster: Internationalization of the RMB

Admittedly, as Ding (2011) said, in terms of international financing, the Hong Kong Dollar's peg to the US Dollar has enabled mainland companies to absorb large amounts of dollar-denominated international funds in Hong Kong. (68) A large number of mainland companies have listed in Hong Kong or issued dim sum bonds and foreign currency-denominated bonds in Hong Kong, thus generating ample capital flows. The statistics show that the number of mainland enterprises listed in Hong Kong accounts for more than half, that stock market value accounts for more than 80%, and that the total amount of US Dollar bonds issued in Hong Kong is far higher than other offshore centres. Compared with other offshore centres, Hong Kong's financial markets are cheaper and offer a variety of alternative offshore RMB risk management tools to manage exchange rate risk, which is attractive for private companies which find it difficult to raise capital in mainland China.

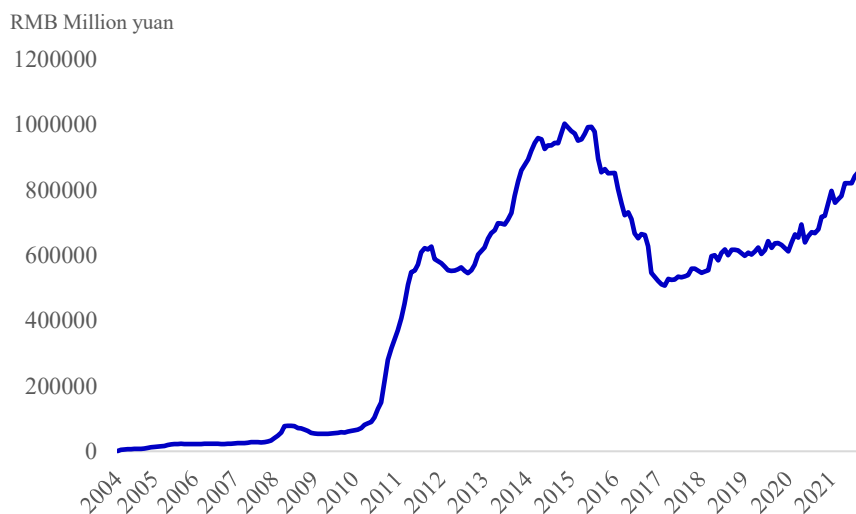


**Figure 8.** Dollar Bonds Issued by Non-financial Mainland Companies in Hong Kong and Other Offshore Centres  
(Source: Wind)

However, with the gradual progress of RMB internationalization, Hong Kong and even other economies around the world have been trading and reserving RMB in large quantities, and RMB per se has gradually developed into an international currency. As a result, the Hong Kong Dollar's decoupling from the US Dollar to the RMB does not diminish the potential for Chinese companies to access large amounts of international capital in Hong Kong. According to 2020 RMB Internationalization Report, RMB ranks fifth in proportion of reserve assets held by IMF member countries, with a market share of 1.95%. It was 0.88 percentage points higher than in 2016 when the RMB was added to the SDR basket. The RMB's market share in global foreign exchange trading was 4.3%, up 0.3 percentage points from 2016. RMB ranks fifth among major international payment currencies, with a market share of 1.76%.

Specifically, the internationalization development of RMB can be mainly reflected by the proportion of RMB as foreign exchange reserve, the trading volume of RMB in foreign exchange market and the development of offshore RMB market. In terms of the RMB foreign exchange reserves, according to the data of the Official Currency Composition of Foreign Exchange Reserves (COFER) of IMF, by the end of the fourth quarter of 2019, the reserve size of RMB reached 217.67 billion US dollars, accounting for 1.95% of the total foreign exchange reserves in specific currencies, ranking the fifth and surpassing the Canadian dollar's 1.88%. This is the highest level since the IMF began reporting reserve assets in the yuan in 2016. More than 70 central banks or monetary authorities around the world have included RMB in their foreign exchange reserves. In terms of RMB trading volume in foreign exchange market, according to SWIFT, RMB is among the most active currencies in the global foreign exchange market. Global daily trading volume of RMB rose to \$284 billion from \$202 billion in 2016, with volume accounting for 4.3 percent of the global foreign exchange market, up from 4 percent in 2016. As to the development of the offshore yuan market, the system has been mature, (OTC) products of the yuan on foreign exchanges including spot, forwards, swaps, currency swaps, non-deliverable forwards (NDFs), options, etc. Offshore exchange markets have a variety of investment products denominated in renminbi, such as renminbi currency futures, renminbi exchange-traded funds (ETFs), renminbi real estate investment trusts (REITs) and so on. The offshore yuan market in Hong Kong is the largest offshore yuan market. Hong Kong has the highest proportion of cross-border RMB receipts and payments, offshore RMB deposits and loans, etc. In 2019, mainland China and Hong Kong accounted for 44.9% of cross-border RMB receipts and payments, more than four times higher than the second-ranked Singapore (10.3%), followed by Germany (3.4%), Taiwan (3.3%), Macau (3.2%) and Japan (3.1%). It can be seen from Figure 9 that from 2004 to 2015,

RMB deposits in Hong Kong rose sharply. Although there was a downward trend in the following two years, they kept growing after picking up in 2017.



**Figure 9.** Customer RMB deposits in Hong Kong  
(Source: <https://www.censtatd.gov.hk/sc/>)

## 5. Conclusion

From the implementation of the linked exchange rate system in Hong Kong until the financial crisis, the fixed exchange rate maintained well under the action of the government and the market. However, after 2008, the fixed exchange rate had several large fluctuations, and the academia began to question the sustainability of the linked exchange rate peg to the US Dollar. After the financial crisis, the divergence between Hong Kong's economic trajectory and the US economy gradually shows the inherent contradiction of the linked exchange rate system, while the economic cycle of HK suggests high correlation with that of mainland China and the close economic exchanges between mainland China and Hong Kong under CEPA. These emerging signs under discussion led the academic to explore the possibility of Hong Kong Dollar linking with RMB. With the acceleration of RMB internationalization, the advantage of Hong Kong Dollar decoupling from US Dollar and linking to RMB will become more and more obvious.

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