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A Brief Analysis on Chinese Exchange Rate Regime

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Introduction

Exchange rate system is strictly related with one country's international trade purpose. The increasing transnational commerce has facilitated the development of inter-connected trading system. The exchange rate system permits one nation's domestic currency being expressed in terms of another nation's currency. This mechanism allows the way of integrating the whole economy through business transactions and investment cashflows.

However, as important the role of one nation's exchange rate system, several basic adjustment of exchange mechanism will generate massive consequences in trade terms. And vice versa, the respective external changes, both threats and opportunities, will make one country adopting a new exchange rate system in response to eventually environmental changes. We can consider an exchange rate system is both the product and the motion that connects its own economy.

The paper starts with the empirical analysis of last five-year exchange rate indexes of RMB to USD. It follows with theoretical approaches concerning the adoption of this modified Chinese exchange rate system with eventual academic critics on this new system. This eventual adjustment in Chinese exchange rate system is responsive to recent Chinese economy growth rates, however, it is still under the criticism by its relative inflexibility and too stringent government control.

The second part concerns with the Chinese geopolitical dimension in modified exchange rate system. This recent adjustment reflects Chinese government target of internationalizing RMB as one of the main international currency reserves. Chinese RMB has experienced a long history of shifting from a totally fixed exchange rate system to a relatively flexible exchange rate policy in balancing both currency stability and currency flexibility. This immense change has given rise of RMB internationalization process, however, things still remain unclear for RMB internationalization, as the RMB still needs to counterbalance external oppression by US side, and internal currency risk once RMB becomes one of the international currency reserves.

The third part occupies in the prospects of the Yuan as an international reserve currency. It concerns mainly on several aspects that the RMB is lacking of becoming one of the types of international reserve currencies. This aspect reveals less confidence for which RMB would be an international reserve currency in near future. It can be observed the efforts that Chinese government made in internationalizing RMB, however, a definite step in advancing the currency internationalization process still lacks.

CHAPTER 1. Chinese Exchange Rate Regime Between 2015-2020

1.1 Historical records of USD-CNY exchange rates in last 5 years

As Figure 1 shows, between April 2015 and 2020, the Renminbi (RMB) - US dollar (USD) exchange rate has gone through several phases: USD appreciated from the beginning of the second stage of 2015 to the beginning of 2017; then USD exchange rate started declining smoothly reached approximately to 6.30. In the mid of 2018 it followed a new appreciation until the late of 2018. While in 2019, the USD exchange rate increased promptly again: the chart still absorbed significant trembling in the second half of 2019 that has lasted at the end of the sample period. However, changes in nominal exchange rates of USD against RMB have been mostly included in the specific range between 6.20 (1 USD = 6.2 CNY, the trough) and 7.20 (1 USD = 7.2 CNY, the peak). These dynamics reflect the new exchange rate fixing regime established in China in 2015 and the end of the pegging of RMB to USD.

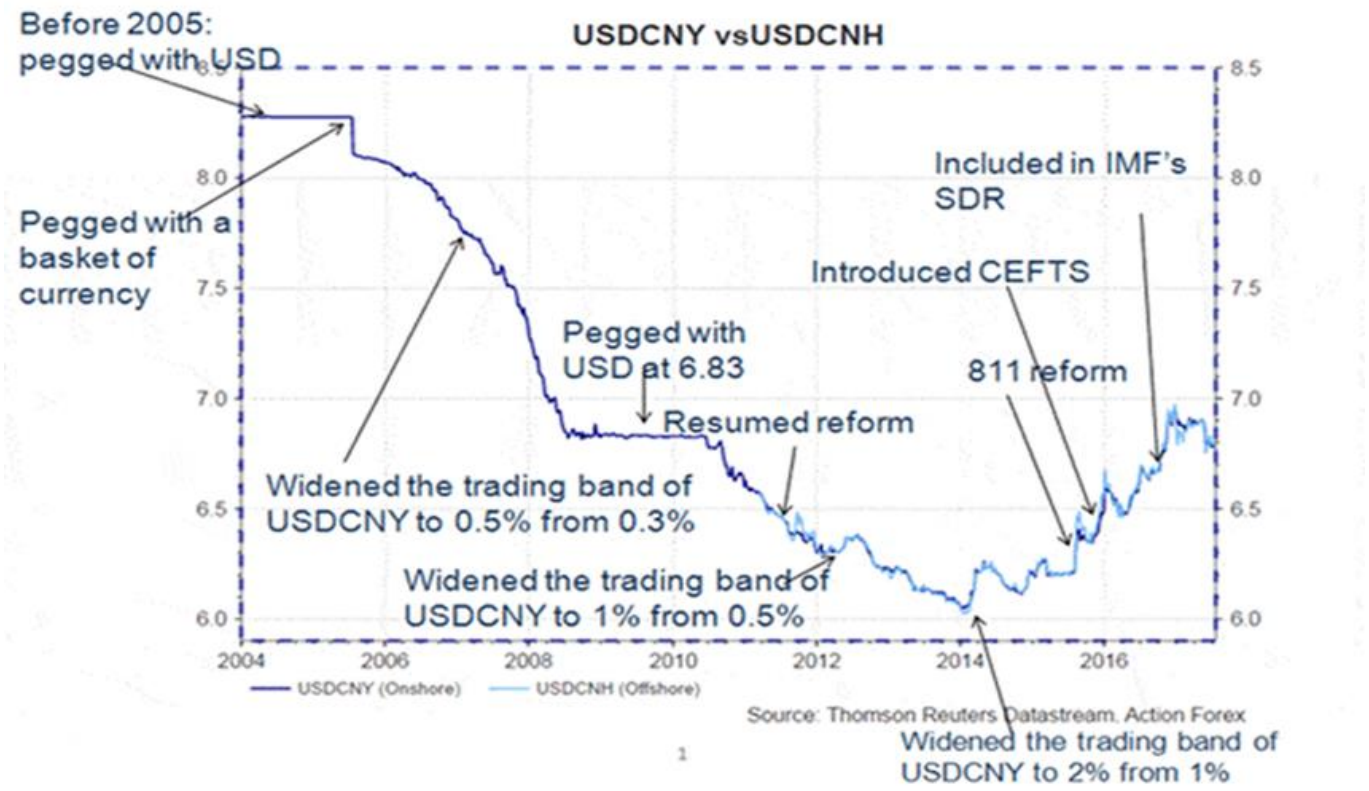
Figure 1. USD-CNY exchange rates in last 5 years

Source: 2020© Exchangerates.org.uk

The People's Bank of China shot an outbreak in its Exchange Rate Reform on August 11, 2015. The reform was denominated '811 Exchange Rate Reform' by the date of announcement, which came into effect in late 2015. In the Fxstreet Journal analysis, the 811 Exchange Rate Reform was a new Renminbi fixing mechanism. The underlining mechanism in the new exchange rate policy was "that the components used in setting that daily fixing rate include previous 'day's close, foreign demand and supply conditions and movements of major currencies." (Agnes Tse, 2017).

The reform was crucial and significant due to the fact that Chinese Government started shifting to a basket of trade-weighted international currencies[1] that CNY pegging on. Apparently the Chinese Government shifted from a rigid, fixed exchange rate regime that pegged on USD into a more flexible and more market-oriented regime, providing more freedom into Renminbi foreign exchange rates movements, which the fluctuation would be determined by more elastic currency demands and supplies, and more specifically, the CNY exchange rate against other foreign currencies (types) will be more market-led operation and be less manipulated by its own Central Intervention.

Figure 2. USD-CNY vs USD-CNH[1]



Source: Thomson Reuters DataStream, Action Fore

Figure 2 helps to put the 2015 decision in historical perspective. As the figure shows, between 2004 and 2015, China oscillated between pegging its currency to the USD and to a basket of currencies (international currencies), including the USD, with different bands of oscillation, which registered a substantial appreciation against the USD, going from 8.20 RMB per USD to 6.0. Within two ranges assuming the

[1] The trade weighted effective exchange rate index is a multilateral exchange rate index. It is complied as a weighted average of exchange rates of home versus foreign currencies, with the weight for each foreign country equal to its share in trade.

currency reform that pegged with a basket of currency, the RMB experienced an inevitable depreciation in accompanying with a wider trading band. The trading band has jumped from 0.3% to 2% in 2014. However, it has been followed by RMB depreciation from 2014 onwards, remaining at around 7.0. In both cases, Chinese monetary authorities have closely monitored and managed the exchange rate in accordance with official economic growth targets and closely institutional control. After the 811 Exchange Rate Reform announcement, the PBOC plunged the RMB exchange rate by -2%; while in currency market trading level, -1.8%. (Agnes Tse, 2017). During the RMB exchange boost period, the People's Bank of China removed the requirement for banks to hold the 20% foreign forward reserves on October 2015. This new policy allowed to stop the USD-RMB devaluation, in turn, the USD absorbed an unavoidable appreciation against RMB after four months' depreciation. The Chinese Foreign Exchange Official introduced CEFTS[2] afterwards, and later on, included jointly the IMF's special drawing rights[3] (Agnes Tse, 2017).

The PBOC resumed reform action before 811 Exchange Rate Reform plunged the USD against CNY exchange rate for around four-year interval. This gradual CNY appreciation confirmed what international investors have been widely believed that, the Chinese domestic currency was disposed under Central Supervision by Government Monetary Restrictions. The repressed CNY currency rate absorbed abnormal depreciation, which was contradicted to the Chinese rapid economic growths. This apparent discrepancy in Chinese internal Economy Strength and the external Chinese Currency Value suddenly released in the [4]moment that the PBOC attempted to liberalize the CNY fixed exchange rate, even though the prompt CNY increase was locked by centrally manipulative repression (Agnes Tse, 2017).

The PBOC explained this sudden CNY devaluation was a mechanical adjustment because of the Chinese Currency divergence from market rate. In the Fxstreet Journal, the holding belief was different: it liked more a Chinese Economy Slowdown Blockage (Agnes Tse, 2017).

In February 7th, 2017, Total Chinese Foreign Reserve broke the floor limit of 3 trillion USD (China Economy Network[2], 2017). It was the first time that Chinese Foreign Reserve shifted down to 3 trillion dollars since 2011. The Foreign Reserve vehicle is treated as one of the main tools to maintain Exchange Rate Stability. The Foreign Reserve adequacy index measures both the Export Coverage and the Short-term Debt Coverage. Even Chinese Government has never published its Foreign Reserve Structure, the Total Chinese Foreign Reserve still kept above its sufficiency for the international transactions (China Economy Network, 2017).

Until December, 26th, 2017, the CNY against USD exchange rate appreciated by more than 6%. The China Securities Network held that CNY exchange boost was led by internal and external factors together: the U.S. Federal Reserves increased the internal interest rates and the Federal Government implemented the Taxation

[2] Common Electronic Fund Transfer Switch.
[3] Special drawing rights are supplementary foreign exchange reserve assets defined and maintained by the International Monetary Find (IMF).
[4] China Economy Network, original version in mandarin version. Translated by Tencent translator.

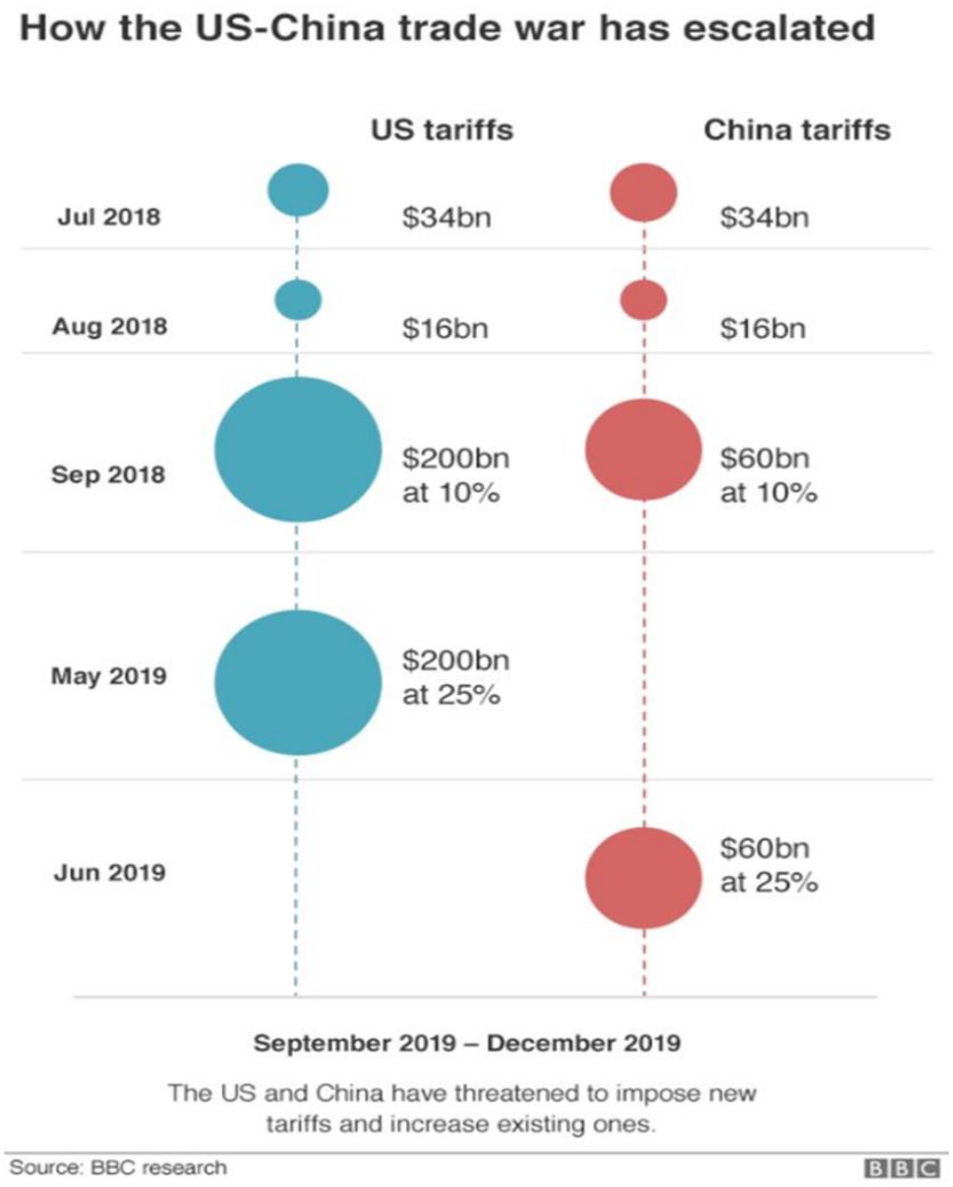
Reform; the Chinese investors devoted massive investments that pushed up domestic currency value (China Securities Network[5], 2017).

In October 2018, total Chinese Foreign Reserve accumulated to 3.05 trillion dollars; in November 2018, total Chinese Foreign Reserve reached at 3.06 trillion dollars, increasing 0.3% compared to the last month. In the meantime, the USD-CNY exchange rate returned into the range of 1 dollar to 6.9 yuan and 1 dollar to 7.0 yuan. Total depreciation in 2018 collapsed by 5.4%. The major impulsive agitation was caused by the potential the US-China Trade War. The Relative Exchange Rate was more responsive to the internationally cooperative vulnerability after the Central Government started to lessen its Monetary Policy. (China Mobile Network[6], 2019).

Developments in the US-China trade relations interacted with changes in the RMB-USD exchange rate. Focusing on 2018-2019, Figure 3 shows how each country adopted the threatening tariff in commercial protection. China was under pressure of being accused for its unfair trading practices and intellectual property theft. This fervent attack was even more severe under Trump presidency. In 2018, the Federal government delivered three tariff imposition actions with total tariff accumulated at more than 360 billion dollar on Chinese goods. China retaliated with tariffs on US imports by more than 110 billion dollar, since the dominant perception in China is the American strategy in curbing the Chinese global economic power. In September 2018, each party imposed on the imports from the counterpart at 10% duty. This disproportionate size of imposed tariffs was derived from the total import volume. In May 2019, the Federal government imposed the duty at 25% on Chinese import goods. In June 2019, the Chinese government exercised its revenge in imposing the same duty on American import goods. However, even the preliminary negotiation was found extremely difficult, in January 2020, the two global economic giants signed the “phase one” deal: the Chinese government pleaded to boost US imports and strengthen the intellectual property rights; the White House agreed to halve some new tariffs imposed on Chinese import goods. While the most recent round is imposing 15% duty on Chinese imports, ranging from meat to musical instruments. This hostility did not end: the White House declared it will still tackle additional issues and it will still prepare for “phase two” deal. (BBC news, 16/01/2020). Between the second half of 2018 and the late stage in 2019, the US-China Trade War started to dominate the global stage, straining the existing close tie between China and the US. Together with other fervent political stresses, e.g., Brexit, the international business threat started to widen that massively hit other nation-economies.

[5] China Securities Network, original version in mandarin version. Translated by Tencent translator.
[6] China Mobile Network, original version in mandarin version. Translated by Tencent translator.

Figure 3. How the US-China Trade War Has Escalated



Source: BBC research

The RMB against USD exchange rate absorbed the US protectionists trade threat, expressed as the tariffs and taxations on Chinese imported-to-America goods. The RMB Exchange Rate remained steadily depreciating. The Chinese economy was still under fortified to shield the US Trade Warning.

This invites further reflection on the relationship between economic considerations (international trade, economic growth, participation in the global economy) and the choice of the exchange rate regime, on the one hand, and those considerations and diplomatic concerns on the other.

1.2 Economic considerations underlying Chinese decisions about the exchange rate regime

The Chinese Government has been undertaking a long-term internationalization process in order to synchronize its rapid surge without dramatic interruption. At the same time, the Government is still on behalf of the Economy Growth target, that accelerate both internal and external business prosperity. In 2001, the Government participated in the World Trade Organization with the aim of facilitating its Global Transactions. While in flip side, such New Opportunity has bumped up both its domestic production and consumption volumes.

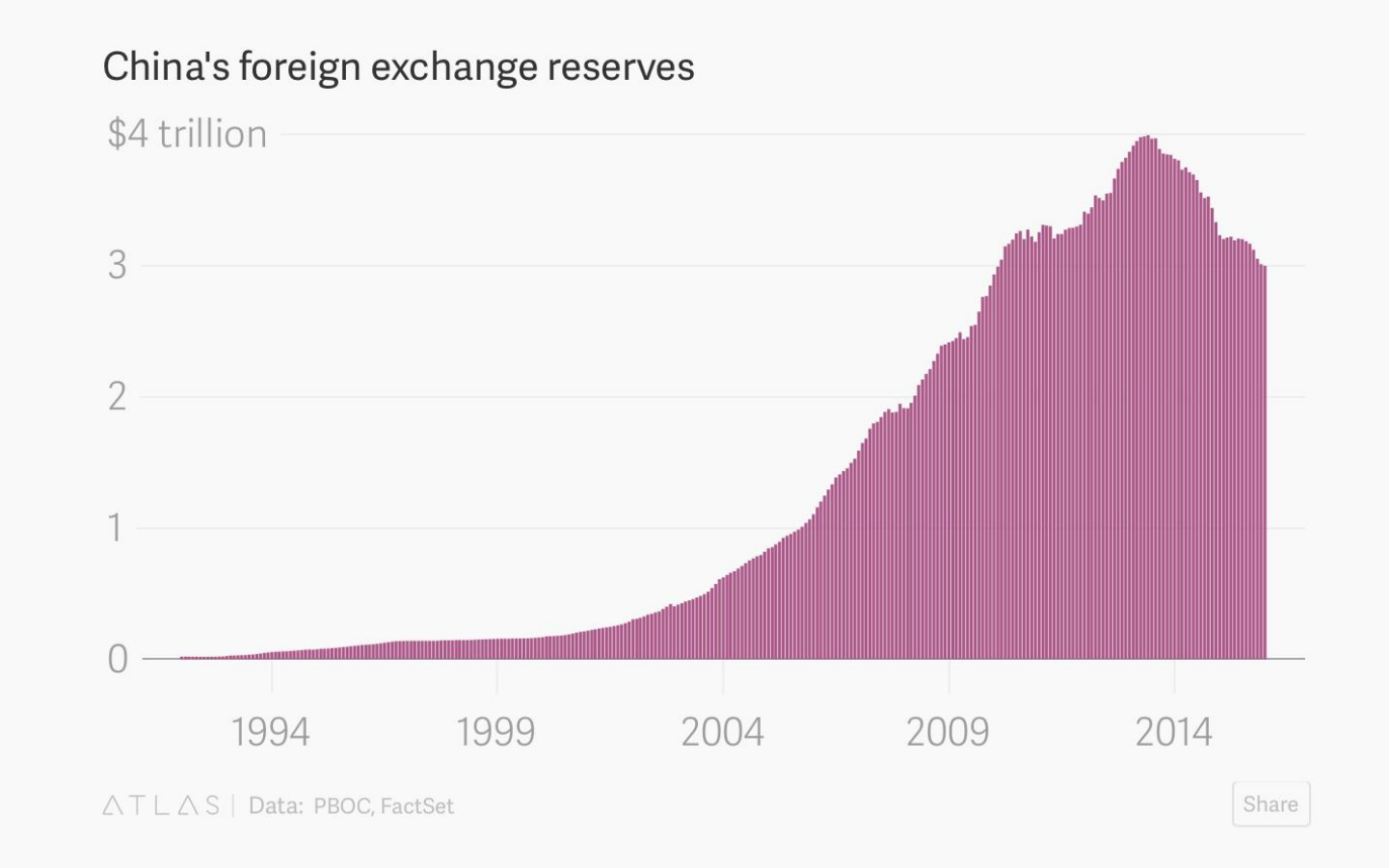
However, this 2015-Exchange Rate Regime Reform was disposed under several criticisms: in Agnes Tse study, the '811 reform' was only a mean to rescue the slow down in Chinese Economy, the market-oriented exchange rate incentive will push foreign investors into Chinese domestic financial market; in the analysis conducted by Heikki Oksanen, it is appointed out the Chinese effort in pushing forward a more flexible exchange rate regime, but the external US threat nevertheless impedes Chinese government withdrawing its control. The analysis of Frederik Kunze criticized that Chinese financial market still lacks essential conditions for a perfectly integrated market. The Monetary Reform was regarded solely as a resolution for its sluggish Economy Growth situation (Agnes Tse, 2017). The Chinese Currency has still remained a pegged currency that it still does not react for real market orientations.

What makes latent reasons less clear is the Chinese Government attitude towards RMB internationalization. The official Exchange Rate Reform was observed as the way to liberate Chinese Exchange Rate from crawling pegged mechanism into a market-driven monetary determination. However, the Chinese government is still foot-dragging on substantial reforms.

The Figure 4 demonstrates the China's foreign exchange reserves in recent decades. Between the period of 1995 and 2003, the total Chinese foreign exchange reserves were in a smooth growth (Gwynn Guilford, February 7, 2017). After 2004, the Chinese government was intentionally shifting towards a flexible currency regime, as the premier announced at the end of 2004 (Reuters, June 19, 2010). In July, 2005, China revalued the yuan by 2.1 % and decided to shift toward "a managed floating exchange rate based on market supply an demand with reference to a basket of currencies." The basket of currencies which the RMB put on reference included the dollar, euro, yen and Korean won, moreover, it also incorporated the Singapore dollar sterling, Malaysian ringgit, Russian double, Australian dollar, Thai baht and Canadian dollar (Reuters, April 14, 2012). Between 2004 and 2014, the Chinese government continued racking up its foreign reserves by selling its own currency for dollars and other currencies. The aim of accumulating foreign reserves is to keep the RMB relatively cheaper than its market value, and consequently, and makes Chinese exports more price competitive. In June 2014, the Chinese foreign exchange reserves reached it speak of around 4 trillion dollar.

However, this increasing trend reversed, the Chinese government started shrinking its foreign exchange reserves at the aim of curbing the eventual RMB depreciation (Gwynn Guilford, February 7, 2017).

Figure 4. China's foreign exchange reserves

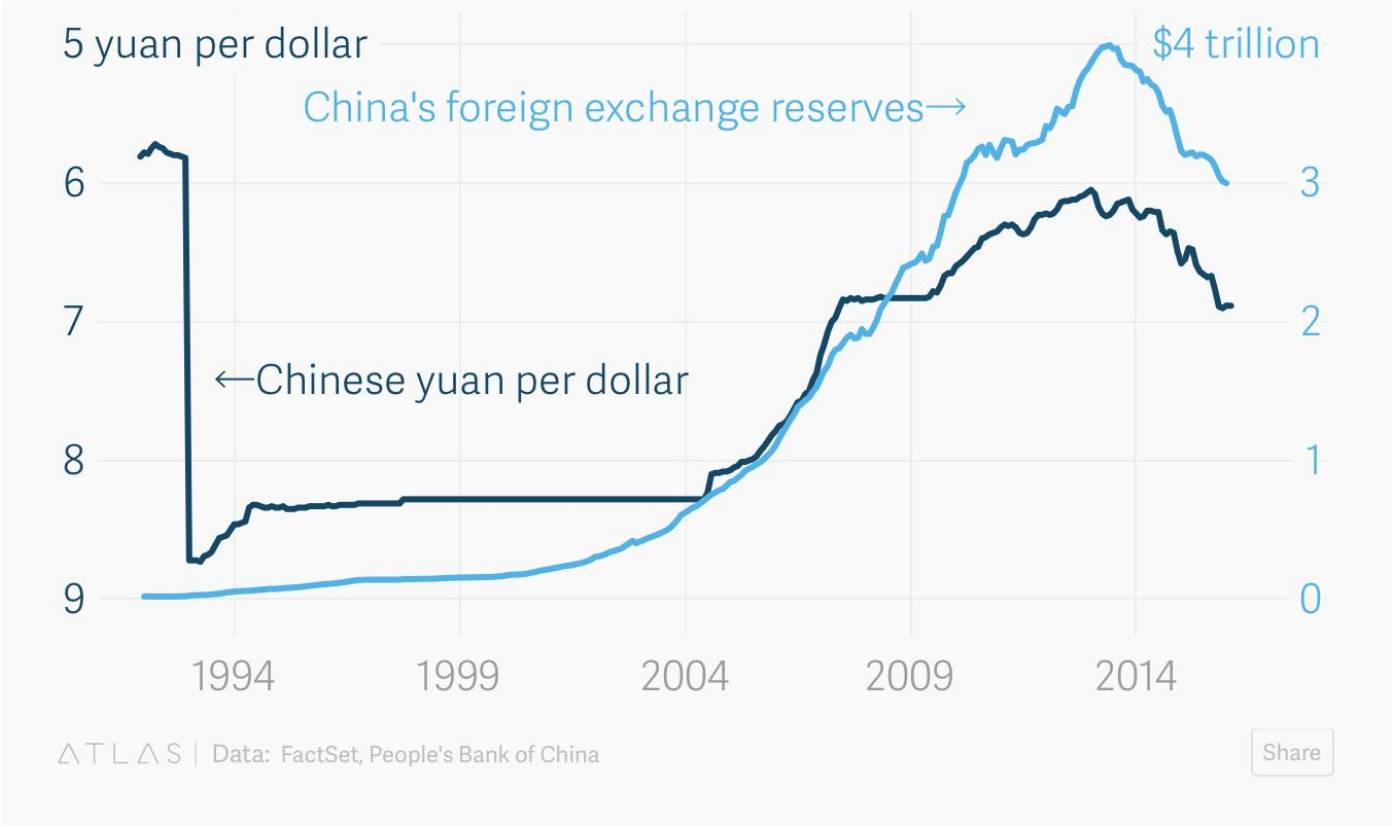


Source: PBOC, FactSet

The Chinese exchange reserves can be better explained with Chinese yuan per dollar exchange rate figured out under the same time framework. These two parallel charts are both presented in Figure 5. In pre-1995 state, the exchange rate of Chinese yuan per dollar was more than 6. A plummet in 1994 was caused by the government action in unifying its aligning official ad swap center rates. In January 1994, the Chinese government officially devalued the yuan by 33% overnight to 8.7 per dollar to embrace the "socialist market economy". In April 1994, China settled its first interbank currency market in Shanghai, the China Foreign Exchange Trade System and fixed its currency value at 8.28 per dollar. The Chinese government kept its Chinese exchange rate per dollar stable until 2004. After the official announcement of an intentionally flexible exchange rate policy, the Chinese yuan per dollar exchange rate started appreciating. At the same time, the Chinese foreign currency reserves followed the same increase pathway. Although after 2009, two charts started widening their gaps, they still synchronized their steps continuing on the same direction. While Chinese domestic investors feared the RMB would lose value once the national economy growth rate slow down, private investors started selling off its domestic currency in exchange for foreign currency reserves. The RMB then continued depreciating, while the Chinese government was enforced to sell its foreign

currency reserves aiming at preventing the RMB depreciation, through the way of plug up the capital flow-out channel (Gwynn Guilford, February 7, 2017).

Figure 5: China's massive reserves result from its exchange rate controls



Source: FactSet, People's Bank of China

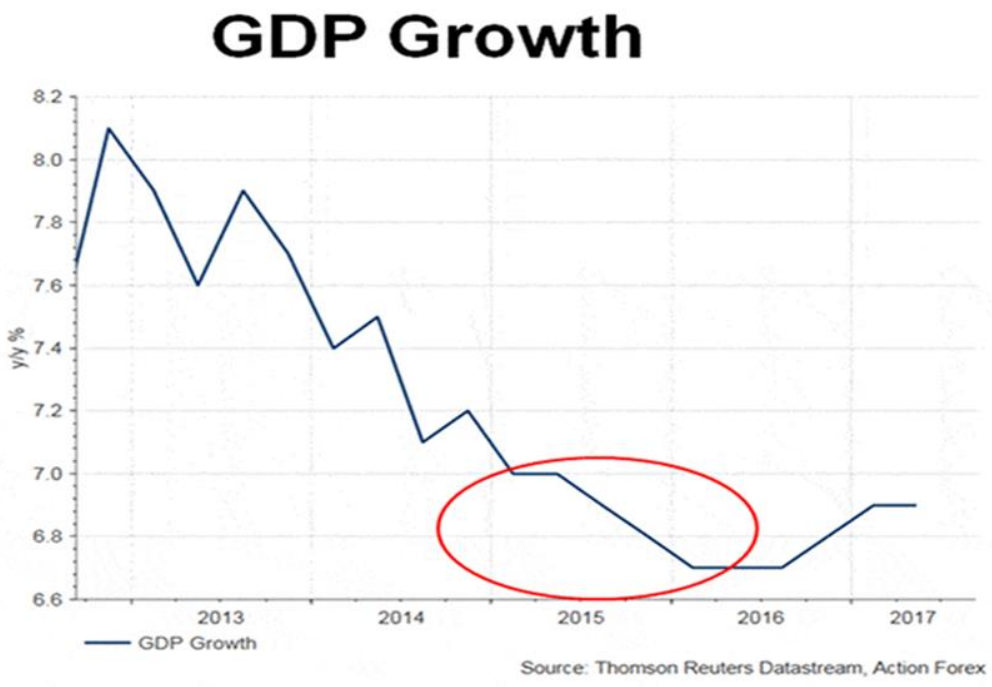
This factual intervention revealed the contradictory attitude of Chinese government towards the RMB liberation. In January 2016, Chinese government proved the tight effort in preventing the RMB exchange rate depreciation worked frivolously (Gwynn Guilford, February 7, 2017).

Chinese exchange rate stability is heavily dependent on its trade surplus. A gradual RMB appreciation will strengthen the investors' belief on RMB value and will bring the potential capital inflow in Chinese financial market. This appreciation benefit will leave the consequence that China is increasing its Foreign reserves enforcedly (Gwynn Guilford, February 7, 2017).

If China leaves the RMB freely floating by market orientation, it will inevitably depreciate the RMB value. A market-oriented depreciation is nevertheless different from the 'competitive depreciation' implemented by Chinese central authority previously. This potential risk leaves China in an attitude ambiguity. The Chinese central government nevertheless has to leverage both risks and benefits raised by free exchange rate determination without centrally manipulation, however, with the trade barriers enhanced by Trump against RMB depreciation, Chinese government will be less likely in lessening its manipulative control over RMB exchange rate against foreign currencies (Gwynn Guilford, February7, 2017).

In analyzing the GDP growth rate in recent decades, as the Figure 6 demonstrates, Chinese GDP growth peaked in the late 2012. After 2012, the ongoing GDP growth rates continued slowing down.

Figure 6. Chinese GDP Growth



Source: Thomson Reuters DataStream, Action Forex

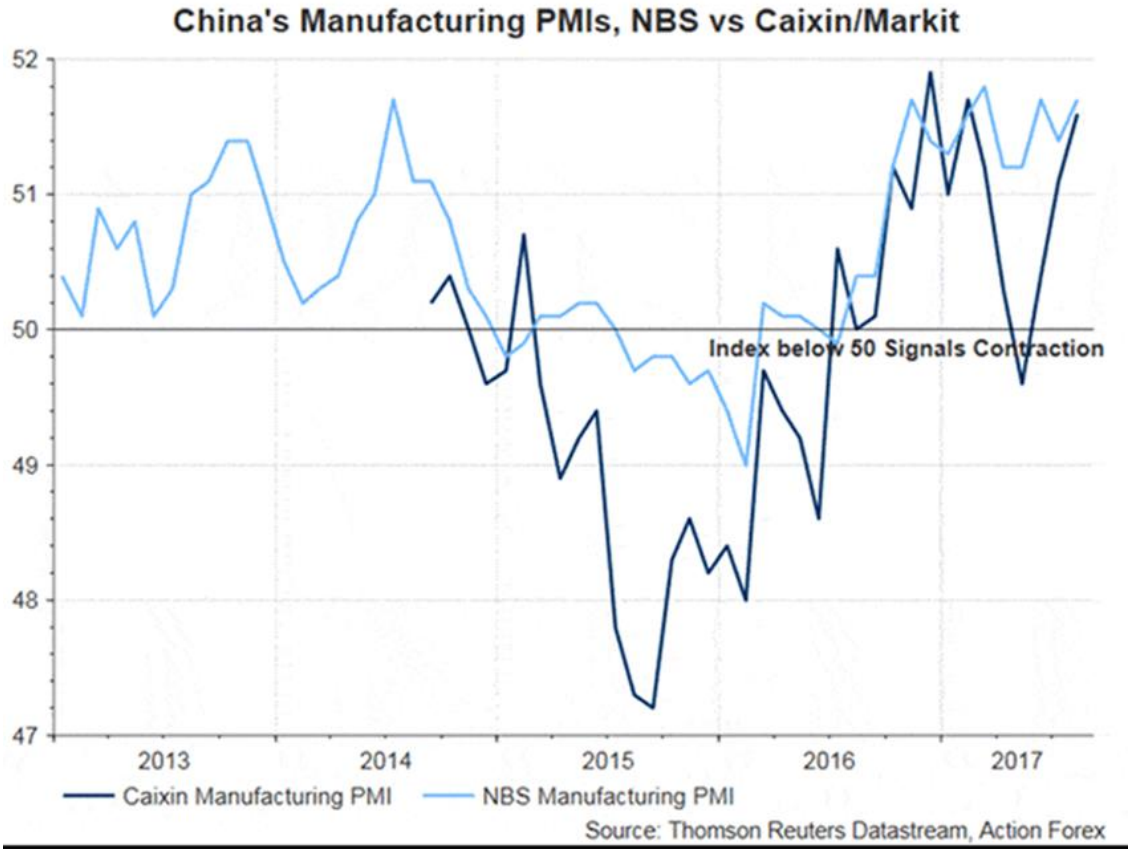
While the Chinese GDP growth rates have been steadily decreasing. The lowest GDP growth rate was observed in the middle of 2015. It continued to be stagnant until the initial periods of 2016. After that, Chinese GDP growth rates have rebounded its growing pathway, even its growth rates increases were less remarkable than previous periods around 2013. The GDP growth rate slowdown became the crucial incentive for domestic investors searching for foreign currency investments. It has been long believed the RMB value is manipulated by central intervention, a relative sluggish GDP growth situation would nevertheless make domestic investors less confident in RMB value. The RMB exchange rate continued depreciating while the GDP growth rate reached its lowest level in 2016. However, the depreciation stopped at around 7 per dollar in 2017, in which the GDP growth rates rebounded at around 6.9%. The GDP growth rate has somewhat explained the potential impact of general economy prosperity on Chinese exchange rate. While the fervent American hostility escalates in international transactions, Chinese authority is in a tightly stressed position of liberating its exchange rate to foreign currencies (Agnes Tse, 2017).

As shown in Figure 7, China's Manufacturing Purchasing Manufacturing Indexes[7] figures out the return to growth after 2015, after the sudden plummet in 2015; while NBS Manufacturing PMI stayed relatively stable (Agnes Tse, 2017). Two upper-jumps in NBS Manufacturing PMI were found in the late stage of 2015

[7] The purchasing Managers' Index (PMI) is an index of the prevailing direction of economic trends in the manufacturing and service sectors, which summarizes whether market conditions are expanding, staying the same , or contracting.

and in the initial stage of 2016. The highest level of NBS Manufacturing PMI was found in the late stage of 2016 before entering 2017 (Agnes Tse, 2017). Industrial production index has found itself the lowest level filling the gap between 2015 and 2016. The stagnant phenomenon did not last for a long temporal interval which started to rewarm during 2016 as the index ongoing showed.

Figure 7. China's Manufacturing PMIs, NBS vs Caixin/Markit



Source: Thomson Reuters DataStream, Action Forex

Between mid-2015 and mid-2016, both manufacturing PMIs indicate the Chinese market contraction. This index representation is partially justified with low GDP growth rates in late 2015. Together with IP growth rate summarized in Figure 8, it is observable the stagnant situation aggregates together in 2015.

The industrial production index incorporates together manufacturing, mining and construction indexes, determining the annual percentage increases in industrial production. The summit of the IP growth is found in pre-2014 stage. The lowest IP growth rate passed through entire year of 2015. However, the post-2015 IP growth rate is still less relevant compared to pre-2014 peak.

Figure 8. Chinese IP Growth

Source: Thomson Reuters DataStream, Action Forex

These fundamental economic indexes are intertwined with Chinese Foreign Exchange policy that inevitably affect Chinese Exchange Rate Regime reform. A closer analysis on Chinese Economic Strength and future directive orientation imposed by Chinese authority is needed to be taken into consideration. The Chinese political concern, the foreign market strength competitive attitude, and the Chinese internal market immaturity, together render a more tough position in achieving the eventual RMB market-oriented exchange rate.

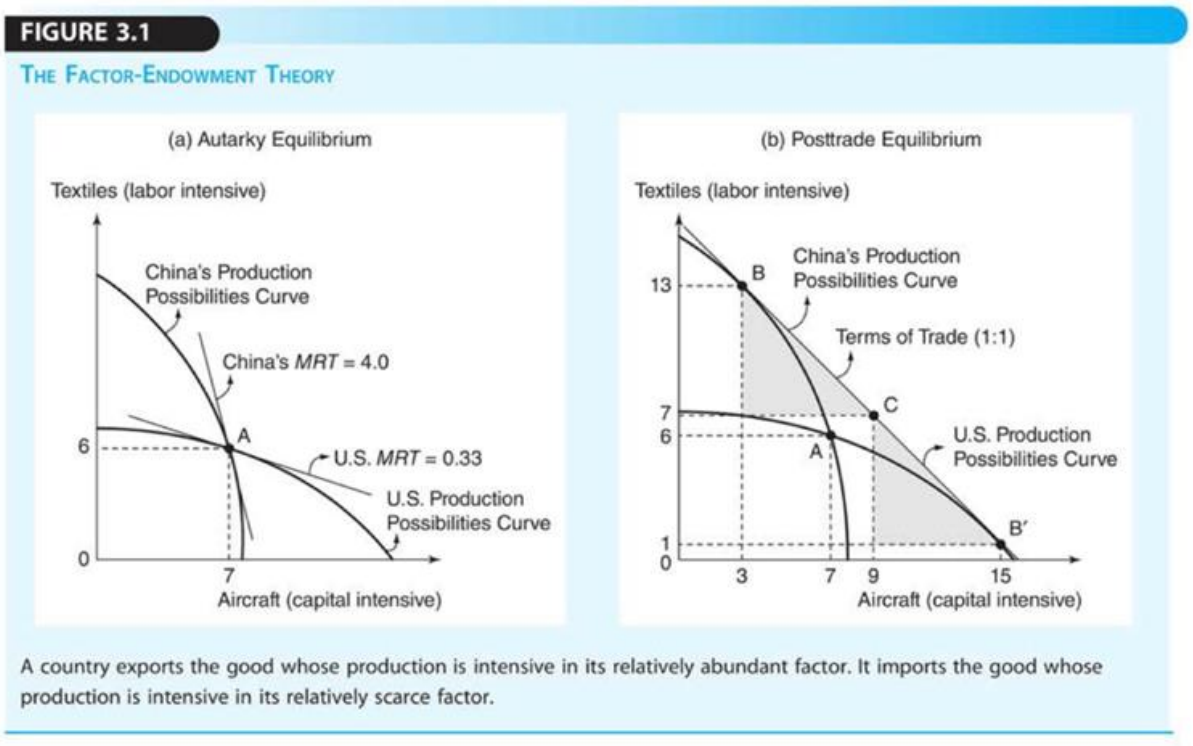
1.3 Exchange rate regime and economic growth: theoretical consideration

The global economy is characterized by high openness degrees with jointly country-partners. New inter-correlated system has facilitated a new economic and financial model that benefit both production and distribution as well as the reversed process. Each country shall concentrate on its comparatively higher productivity areas and export goods and services into other countries. At the same time, each country is disposable to import other goods and services from production fields that lacks a comparative advantage. Figure 9 shows the advantage of international trade over autarky.

The Figure 9 makes comparison between autarky equilibrium, where each country is concentrated on one good production, and the post trade equilibrium, where each country negotiates with another party in dealing transaction. Each panel is holding a two-market consideration: the textiles market and the aircraft market. China is comparably advantageous in textile market for labor abundance; whereas US is comparably advantageous in aircraft market for capital abundance.

On the left-panel, the Chinese production frontier is vertically bounded with marginal rate of transformation of abandoning 4 textile for 1 aircraft increase; the US production frontier is horizontally bounded with marginal rate of transformation of abandoning 0.33 textile for 1 aircraft increase. Their production frontiers intersect at middle point of 6 textile production and 7 aircraft production.

Figure 9. The Factor-Endowment Theory



Source: Robert J. Carbaugh, International Economics, 13th Edition

On the right-panel, the total production frontier passes two most outward points in each production frontier. The equilibrium of two cooperative markets is shifting outward with 7 textile production and 9 aircraft production. Both markets increased each good production through expanding the joint market frontier (Robert J. Carbaugh, 2008).

This global cooperation possibility has enlarged the whole production frontier that massively increases total production available. The international economics focused on analyzing the transnational benefits, in which, the exchange rate is the basement of regulating the business relationships (Robert J. Carbaugh, 2008).

An exchange rate expresses the value of goods and services produced or consumed in one country in terms of another country's currency (Robert J. Carbaugh, 2008). It standardizes two countries' price levels and correspondent citizens' purchasing power. The exchange rate allows to compare two countries' pricing level on the same goods and services (Robert J. Carbaugh, 2008).

The economic theory, as discussed above, indicates that international trade based on comparative advantage promoters global prosperity. This indication must be qualified by taking exchange rate considerations into account.

Each country is characterized by differences in relative resource endowments, therefore by differences in relative resource prices. The comparative consumption willingness can be described through the purchasing power parity theory:

$$S_1 = S_0 \frac{P_{US1}/P_{US0}}{P_{S1}/P_{S0}}$$

(Robert J. Carbaugh, 2008).

International economics took its role in global endowment aggregation. It unifies commodity market and financial market worldwide all together (Robert J. Carbaugh, 2008).

This concern can be actually observed in currency transactions where the exchange rate is focused. Currency in financial market is considered as a typical financial products type both for investment and for speculative motives. In the commodity market, foreign currencies are traded mainly for transaction purposes. In both markets, exchange rate is determined as the equilibrium price of normal or financial goods in corresponding markets, which is determined by the general price stabilisation rule of demand and supply, as the main perfect market regulator (Robert J. Carbaugh, 2008).

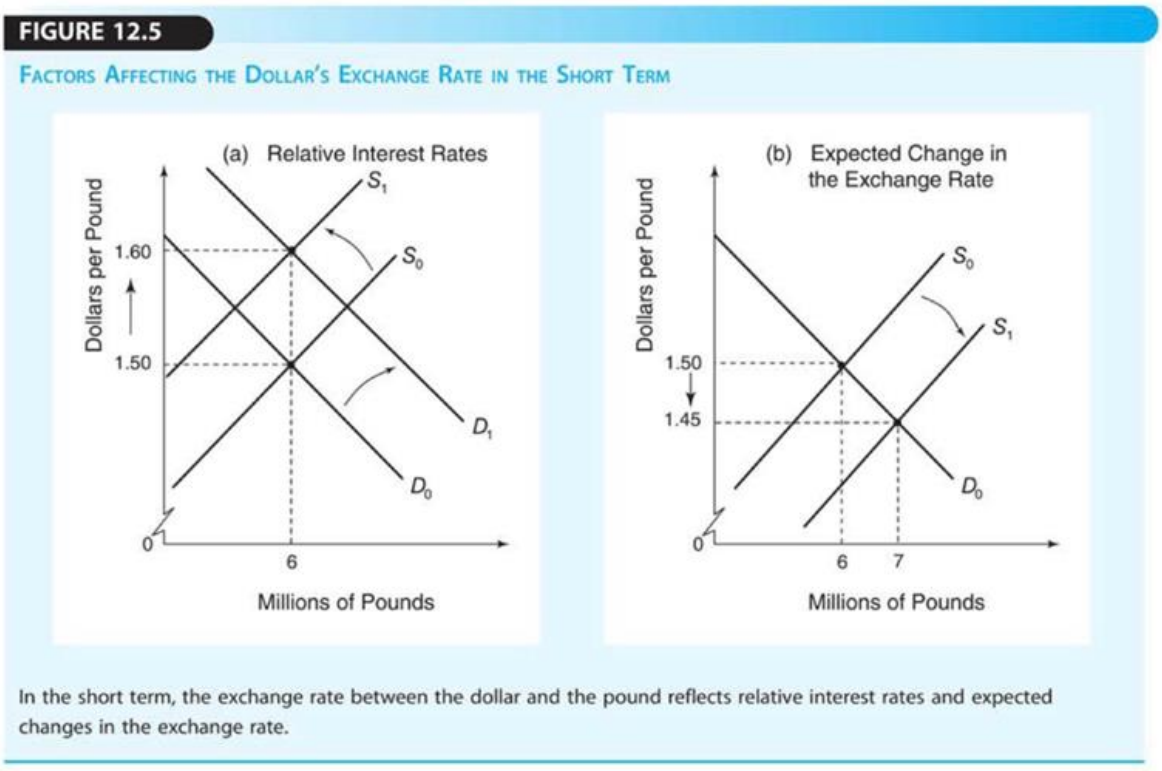
There are several important factors needed to be considered into exchange rate determination: the market fundamentals and market expectations. The market fundamentals which affect the currency exchange rate in the long-run consist of Relative Price Levels; Relative Productivity Levels; Preferences for Domestic or Foreign Goods and Trade Barriers.

In the short-run, the exchange rate will be dominated by the asset-market approach that specifically determined by the Relative Level of Interest Rates (Robert J. Carbaugh, 2008). The Figure 10 demonstrates how the relative level of interest rates will affect the dollar's exchange rate against pound in the short run. The level of real interest rate, discounted possible inflation effect, will affect international investment flows through which, the investors seek the highest rate of return in particularly currency investment. The figure below assumes the initial equilibrium exchange rate is 1.5 dollar per pound.

On left panel, it is assumed the Federal Government implemented an expansionary monetary policy, lowering its domestic interest rate by 3%, while the UK Government lowered its domestic interest by 6%. This relative lower UK interest rate will attract American investors in demanding more pounds, while the dollar appeared less attractive. The demand of pound shifted outward, while the supply of pound shifted backward due to lesser pound availability, and consequently, the new equilibrium was 1.6 dollar per pound.

On right panel, the pound interest rate is expected at relatively higher level against dollar. Situation is barely reversed with higher demand in dollar, while the pound seems less attractive. Demand for pound does not vary, the outward supply of pound is the outcome of lower pound desirability in comparison to the dollar.

Figure 10. Factors Affecting the Dollar's Exchange Rate in the Short Term



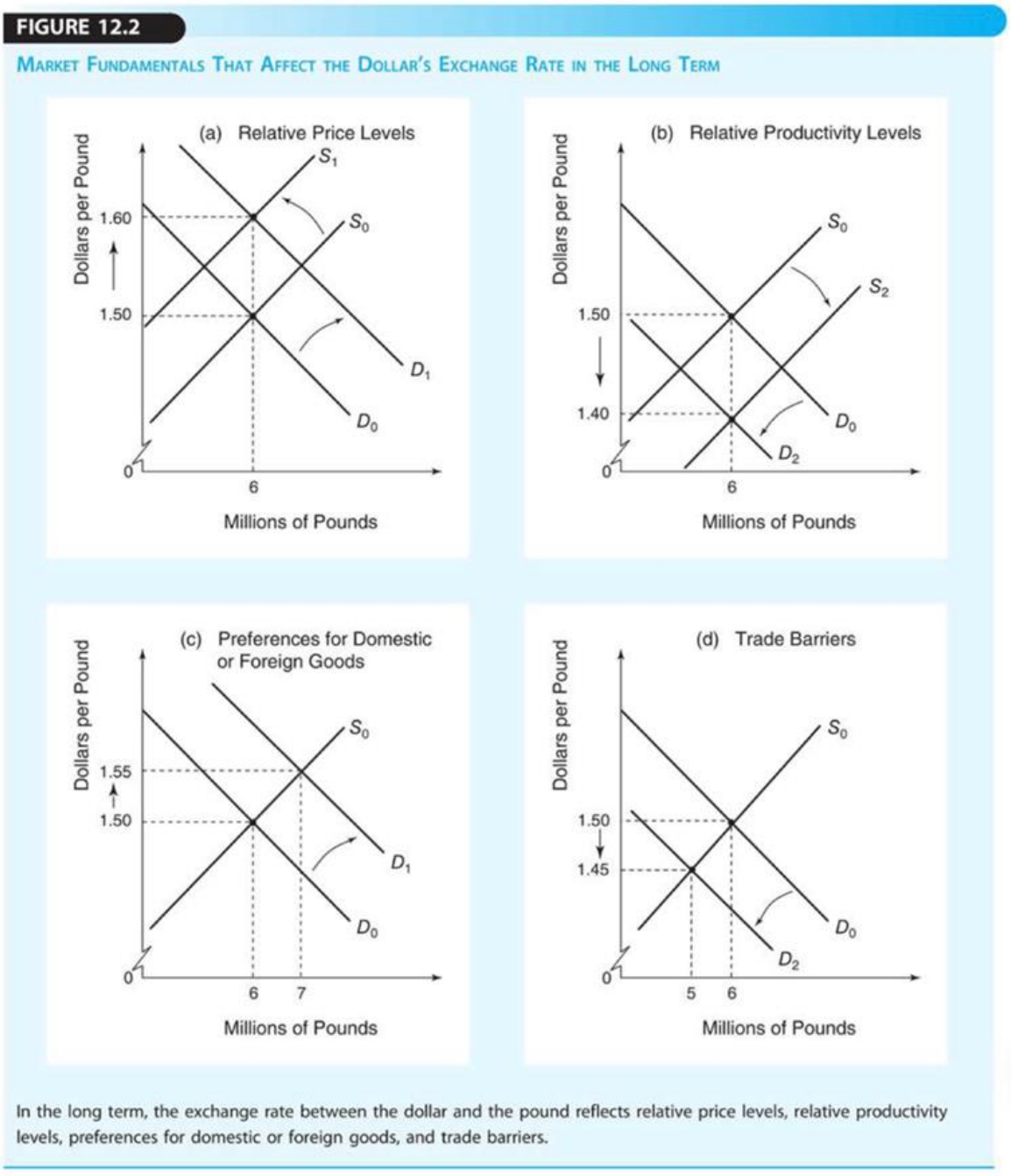
Source: Robert J. Carbaugh, International Economics, 13th Edition

Figure 11 summarized four fundamentals' effects in the dollar's exchange rate in the long run. The panel (a) determines the impact of relative price levels on long-term dollar exchange rate. It is assumed that domestic

price level in US market increased rapidly, the domestic price level in UK remained invariable. This disproportionate increase makes the US domestic prices relatively more expensive than UK one. It will increase the demand of pound in purchasing UK goods, while the supply of pound becomes less. This increase in pound demand and the decrease in pound supply result the dollar depreciation in the long run, from 1.5 dollar per pound to 1.6 dollar per pound.

The panel (b) figured out the impact of relative productivity levels in the long run. Suppose the US increases its productivity capacity rapidly, and the UK domestic productivity level does not change. The US goods will be less expensive than UK production. The UK domestic goods demand will drop and goods supply will increase. It consequently reflected in the demand and supply of the pound, that demand of pound is shifting backward, whereas the supply of pound shift outward. This effect will nevertheless be reflected on 1.4 dollar exchange rate per pound, lower than original 1.5 dollar per pound.

Figure 11. Market Fundamentals that Affect the Dollar's Exchange Rate in the Long Term



Source: Robert J. Carbaugh, International Economics, 13th Edition

The panel (c) explicitly describes the effect of the preferences for domestic or foreign goods on exchange rate in the long run. If American consumers are particularly interested in UK computers, this preference will lead to both goods and pound demand increases. The demand line will shift outwards, leading the dollar against pound exchange rate depreciates. However, if the UK consumers are prone with US automobiles, this consumption preference will nonetheless lead a higher dollar and US automobile demand, which consequently appreciates the dollar exchange rate.

The trade barrier is the ultimate fundamental factor which has the long-term exchange rate impact. The panel (d) pointed out that, if the US government imposed a higher tariff on UK imports, the UK goods will be relatively higher for US domestic consumers. This effect will intentionally shift the UK goods demand backward, and consequently, the demand of pound will be dragged down. It will nevertheless appreciate the dollar exchange rate against pound from 1.5 dollar per pound to 1.45.

Expectation will dominate in both cases. Long-run determinants of one currency's exchange rate would essentially affect the expected appreciation of the currency in recent months. The expected foreign exchange gain/loss will be affected by foreign investors' behaviour and shifted from one bundle of financial assets to another. Consequently, the investors' change of mind will cause either depreciation in one currency or the appreciation in one other (Robert J. Carbaugh, 2008).

Applying the previous analysis of the forex market to the case of China, as Figure 12 shows, the following considerations apply: first, China has been running a current account surplus for many years. This current account surplus is derived by the net imports in Chinese domestic market. Between 2000 and 2004, Chinese current account was running a surplus approximately at 2%. This smooth account index suddenly jumped to 10% in 2007. It is mostly contributed by manufacturing net imports. After 2009, the current account plummeted at around 4% of surplus. Whereas this decline continues, in forth quarter of 2018, the current account surplus is approaching at 0%.

Both foods and manufacturing are two major surplus contributors. The primary products are steadily running in account deficit. The service sector is approximately at the 0 balance point, which a smooth decline after 2014. (Brad W. Sester, April 4, 2019)

Figure 12. China's Current Account Surplus

Source: SAFE/China Customs/Haven Analytics

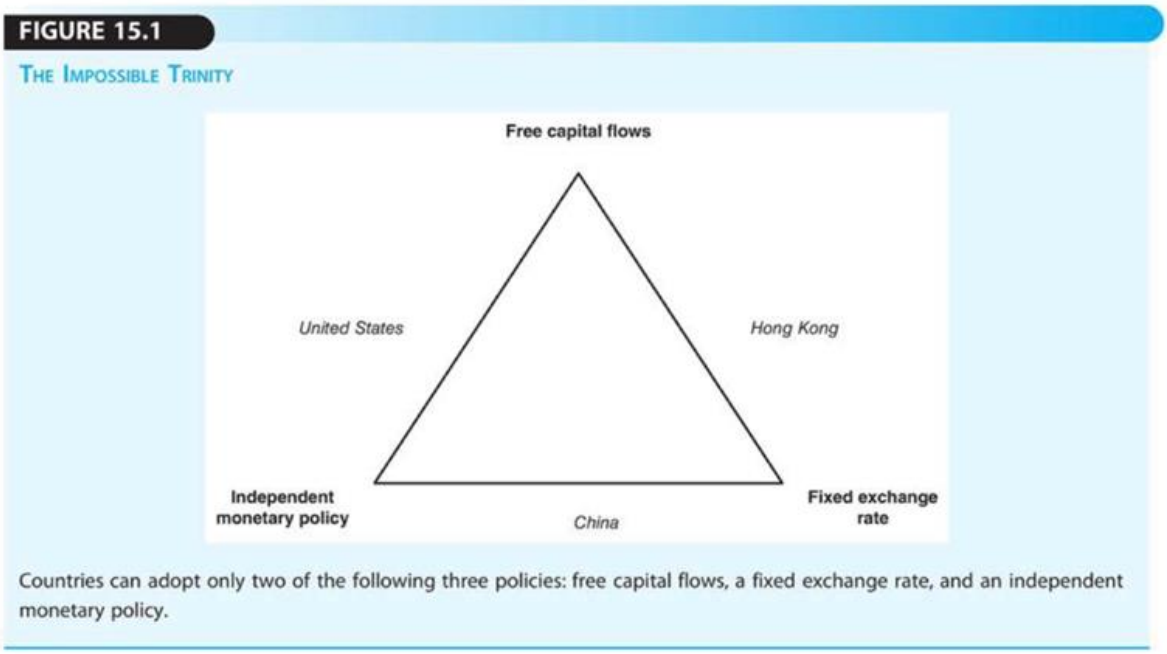
This contributed to the accumulation of official foreign exchange reserves. The accumulated foreign goods consumption in private market pushes the demand of foreign currencies outwards. Chinese current account surplus has accelerated the gradual appreciation of the RMB relative to the USD, as discussed above.

Second, the Chinese foreign exchange market is considerably regulated by Chinese monetary authorities, differently from the USA and Europe were exchange rate are market-determined.

The Chinese Government has assumed the responsibility in establishing an effective Exchange Rate Regime in order to maintain effectively its monetary policy and domestic interest rates (Robert J. Carbaugh, 2008).

In choosing an optimal Exchange Rate Regime, some main components are fundamental in discussion: size and openness of Economy; inflation rate; degree of financial development; capital mobility and inflation management (Robert J. Carbaugh, 2008). Maintenance of barriers to international capital mobility by Chinese authorities is a way to preserve the possibility of independent monetary policy and fixed exchange rate: in light of the so-called impossible trinity (Figure 13), (Robert J. Carbaugh, 2008).

Figure 13. The Impossible Trinity



Source: Robert J. Carbaugh, International Economics, 13th Edition

After 1971, the mechanism of expressing official exchange rates in terms of gold has been dropped out. Members of the International Monetary Fund follow the exchange-rate policy that conforms to three principles: free-capital flows; independent monetary policy and fixed exchange rate. Members can choose two of three principles depending on whether its currency exchange rate is floating or fixed. This adoption is strictly related to some essential characteristics of the size if the nation, openness to trade, the degree of labor mobility and the availability of fiscal policy. A country can adopt independent monetary policy and free capital flows together, this option bans the country from implementing a fixed exchange rate policy, as the capital flows freedom and the independent monetary policy will necessarily lead a market-oriented exchange rate (e.g. USD); the Chinese government opts the independent monetary policy and fixed exchange rate together, before the exchange rate policy reforms, should necessarily restrict the capital flows. This restriction will however discounts the Chinese financial market efficiency, leading foreign investors less confident with Chinese financial market; the Hong Kong adopts a fixed exchange rate policy with free capital flows strategy, this financial autonomy granted by Chinese government determines the Hong Kong stock markets efficiency, which promotes the foreign investment inflows into Hong Kong financial market.

These three goals cannot be reconciled simultaneously, each country is restricted from this impossible trinity[8]. Therefore each Member-State has to make reasonable assessment in weighing one adoption with its

[8] See Robert Mindel, "The Appropriate Use of one tart and Fiscal Policy for Internal and External Stability," IMF Staff Papers, March 1962 and "Capital Mobility and Stabilization Policy under Fixed and Flexible Exchange Rates," Canadian Journal of Economics, November 1963.

own directive development. There are several main advantages and disadvantages of fixed and floating exchange rate in Figure 14.

The Chinese Government has followed intermittently the Monetary Policy determination. The main goal of Chinese Market is to maintain the domestic price stability. It pursues the necessary Government Intervention in procuring the Economy Growth (Robert J. Carbaugh, 2008).

Figure 14. Advantages and Disadvantages of Fixed Exchange Rates and Floating Exchange Rates

TABLE 15.4

ADVANTAGES AND DISADVANTAGES OF FIXED EXCHANGE RATES AND FLOATING EXCHANGE RATES

	Advantages	Disadvantages
Fixed exchange rates	Simplicity and clarity of exchange-rate target	Loss of independent monetary policy
	Automatic rule for the conduct of monetary policy	Vulnerable to speculative attacks
	Keeps inflation under control	
Floating exchange rates	Continuous adjustment in the balance of payments	Conducive to price inflation
	Operate under simplified institutional arrangements	Disorderly exchange markets can disrupt trade and investment patterns
	Allow governments to set independent monetary and fiscal policies	Encourage reckless financial policies on the part of government

Source: Robert J. Carbaugh, International Economics, 13th Edition

The Fixed Exchange Rate Policy would intentionally deal with internal economic and monetary stability, aiming at disposing possible inflation spill over effect under control. The fixed exchange rate regime enables the Government in managing the external inflation threat. The pegged currency granted a better price stability in the domestic economy environment. In addition, the Government would put the exchange-stabilisation fund aside, waiving more efficiently future liquidity risk and granting the best tool of leveraging outside financial risk. The fixed exchange rate regime has been implemented mainly by developing countries, since it is considered as one main safe instrument to face monetary instability (Robert J. Carbaugh, 2008). The Chinese Government has strong belief in its proficient effectiveness, and thus has managed the Fixed Exchange Rate Regime for more decades. However, a larger economic environment would challenge the Central Authority in fixed exchange rate policy. The fixed exchange rate policy undeniably stumbles the RMB internationalisation.

The Chinese Government has been disposed under criticism for its currency manipulation. It has found the currency been hugely undervalued relative against USD. This depreciation has facilitated its export volume, whereas the financial market was less attractive to foreign investors. The US Government and other nations criticised such manipulative devaluation not compatible to the Chinese growth rate would hurt their manufacturing sectors and employment rates in primary and secondary sectors. Whereas the main goal for

Chinese Government is to wield effectively the inflation frightening, avoiding to re-experience the inflation of more than 20% between 1993-1995 (Heikki Oksanen, April 2015).

Table 1 represents both deposit rate and lending rate, together with GDP growth rate in US and China. Between 2000 and 2010, both deposit rate and lending rate in China are significantly lower than the GDP growth rate, while most of GDP growth rates are greater than 10, the deposit rates remain below 5; the lending rate is around 5, which is still much lower than the Chinese GDP growth rate. In the US, deposit rates are quite closer with GDP growth rate, with lending rate slightly higher than GDP growth rate.

Table 1. Interest Rates and GDP Growth for U.S. and China

Table 2: Interest Rates and GDP Growth for U.S. and China

	China				United States			
	Deposit Rate	Lending Rate	Interbank Overnight Rate	GDP Growth	Deposit Rate	Lending Rate	Federal Funds Rate	GDP Growth
2000	2.25	5.85		8.37	6.65	9.23	6.24	6.39
2001	2.25	5.58		10.41	3.73	6.92	3.89	3.36
2002	1.98	5.31	2.4	10.50	1.88	4.67	1.67	3.46
2003	1.98	5.31	2.18	13.41	1.23	4.12	1.13	4.70
2004	2.25	5.58	2.01	17.69	1.79	4.34	1.35	6.51
2005	2.25	5.58	2.01	16.38	3.76	6.19	3.21	6.49
2006	2.52	6.12	1.31	18.76	5.27	7.96	4.96	6.02
2007	4.14	7.47	1.97	19.62	5.25	8.05	5.02	4.95
2008	2.25	5.31	2.21	18.46	3.05	5.09	1.93	2.19
2009	2.25	5.31	0.83	9.57	1.12	3.25	0.16	-1.74
2010	2.5	5.56	2.24	12.88	0.518	3.25	0.17	3.57

Source: Datastream; GDP for 2010 are IMF staff estimates; values for Chinese deposit and lending rates are from November 2010.

Source: DataStream

The Chinese Government obtains its target in maintaining the economy stability. A wider currency basket incorporation would be a step forward in granting the economy stability over time. The US dollar is one of the four Super Currencies mostly traded. It didn't grant the most effective inflation control, probably by a planned more expanded economy size and by the fear of dollarization. However, the 811 reform would not be considered as the crucial step in switching from fixed exchange rate to floating exchange rate. Therefore, the Chinese Government control would be less likely of withdrawing itself entirely from Chinese Foreign Policies (Heikki Oksanen, April 2015).

There are four main international currencies being widely for other currency types to peg on. The most diffuse fixed exchange rate regime is Currency Board and Dollarization. A currency board is a Fixed Exchange Rate System that authority presides to impose a series of regulatory disciplines in order to maintain the exchange rate fixed through notes and coins convertible into a foreign currency (Robert J. Carbaugh, 2008). The Currency Board essentially imposes policies on monetary creation and grants more stable price levels.

Another type of Fixed Exchange Rate type is dollarization, it fundamentally bases its principles on currency peg function. Countries adopt the dollarization process can either choose to use dollar directly as the domestic currency, or peg its currency on dollar in order to against prosperity from boost of inflation and speculation on currencies. Such process has leveraged the possible currency crisis in one country. Pegging on dollar is a general accepted mechanism in protecting one country from future credit risks (Robert J. Carbaugh, 2008).

1.4 Academic studies on the Chinese Exchange Rate: a sample of the literature

The Chinese Exchange Rate Regime has engaged for adjustments over time. Scholars see Chinese current economy growth from one side. Whereas the Chinese current monetary policy in adjusting the RMB exchange rate—this flip-side is still lack of liberalised actions and the central manipulation nevertheless has provoked incongruent currency depreciation.

The paper published in 2016 by Guglielmo Maria Caporale and other researchers by University of Greenwich, has discussed the gradually increasing role of Renminbi in Asian Economy. This economic development is followed with two main directions: the ASEAN economy forum itself and the Chinese economy development.

The East Asian economy started taking several steps for a greater economic integration after Asian economic crisis in 1990. Both Association of Southwest Asian National Plus Three (ASEAN +3) and the Executive Meeting of East Asia-Pacific Central Banks (EMEAP) engage in Asian market-led integration and policy-induced cooperation. Following two significant unions, Asian countries continued to promote a greater inter-continental integration through the Chiang Mai initiative (CMI) in 2002, the Asian Bond Market Initiative (ABMI) in 2003, and the new ABMI Roadmap in 2008. In 2015, there were recorded 154 bilateral trade agreements and 61 multilateral trade agreements in Eastern Asia. (Guglielmo Maria Caporale, et al., 2016).

Chinese total trade has been steadily increased. As Figure 15 pointed out the Chinese export and import volume during 2005-2016 timeframe, both export and import volumes increased over time, approximately at more than 80% growth in export volumes and 60% growth in import volumes. This transaction growth between China and foreign countries can also be observable in the China-ASEAN trade (Brad W. Sester, October 14, 2016).

Figure 15. Chinese Export and Import volumes

Figure 16 brings the China-ASEAN trade volume data. Between 2011 and 2017. From 2011 to 2014, the growth is steadily stable, from 363 billion dollar in 2011 to 480.4 billion dollar in 2017. The transaction slightly declined during 2015-2016 period. While in 2017, total trade volume raised again to 515 billion dollar in total. (CGTN, September 11, 2018).

Figure 16. China-ASEAN Trade Volume in USD 2011-2017

Source: MOFCOM, People.cn

The transaction-volume growth pathway has given rise to the analysis conducted by researcher Caporale. The research collected monthly real exchange rates of nine ASEAN countries: Brunei Darussalam, Cambodia, Indonesia, Lao, Malaysia, Philippine, Singapore, Thailand, Vietnam. The data covered the period 1995m1-2014 m12 and is categorized into three baskets: the real exchange rate of each country vis-à-vis the USD; the real exchange rate vis-à-vis the RMB, and the real exchange rate vis-à-vis the real regional index. The data is analyzed through econometric model in determining the significance of each Asian country in sample against the three references. The outcome of econometric analysis is not surprising: China-ASEAN transaction growth has put forward a major RMB role in ASEAN continents. Furthermore, the author observed a intermittently process that the RMB is replacing the US dollar role in mainly nine ASEAN countries as for Chinese currency has a closer linkage with Asian Economy Blocks (Guglielmo Maria Caporale et al, 2016). This market-centralised integration has favoured its policy-oriented integration. The ASEAN trade block is more correlated with each state member than previously thought. While Chinese export has lost its relative comparative advantage compared to other Asian countries both for prices and labor wages. However, this crucial RMB function still leaves a problematic situation for ASEAN economy. Chinese Government needs a better Exchange regime for managing the inter-banking transactions and commodity trades within the ASEAN countries. After 2005 intention of flexible exchange rate regime movement, Chinese government has still been stuck in the motion stage. A more flexible exchange rate regime will facilitate both inter-continental transaction and capital flows between ASEAN members. Despite

this necessity, RMB still stands on its primary position in the ASEAN market (Guglielmo Maria Caporale et al, 2016).

The Chinese Exchange Rate Regime has adjusted for decades in order to promote its own Currency Internationalization objective. The RMB had pegged exclusively on US dollar since 1994 and the Government announced to peg its domestic currency on a basket of currencies as reference in 2010. In managing the external value of the Renminbi, scholars confirmed that the Government is necessary in shifting from fixed Exchange Rate system, or crawling peg Exchange rate system, into a more floating and flexible structure (Heikki Oksanen. April 2015).

This paper has introduced the effort made by Chinese Central Authority. The Chinese Government released its monetary control over decades, and consequently, the RMB appreciated gradually against other currency types in international level. Heikki Oksanen determined the possible effects from this lessening effort which summarized some contents in the way of promoting Chinese RMB as one of the possible international currency as worldwide protagonist. This opportunity for linking RMB to a basket of currency would be a more secure and transparent Monetary Mechanism for the Chinese Government. While the Chinese Government has to release the possible inflationary menace spreading over a basket of currency, this Monetary Reform cannot be implemented immediately while more cautiousness need to be accounted. For Heikki, Chinese Government has still remained in strict linkage with the Global Dominant USD. This prevalence seems less likely to de-peg the RMB entirely from USD impact (Heikki Oksanen, April 2015).

Another critics was concerned on imbalances between Chinese dollar peg system and trade balances which involved in two countries (Ronald McKinnon et al. ,2011).

That paper analysed the Chinese Export Volume has long accumulated large net savings with positive trade balances. This undervaluation of RMB actually put pressure on Chinese Government to enforce it to change its own Exchange Rate Regime. Another important reason for Monetary Reform is that the underlying Yuan-Dollar exchange rate was the Chinese Economy Development in recent years. The RMB was nominally linked to the USD. But that nominal linkage should be modified once the China gains more strength in ASEAN Economy. The Chinese Economy is incredibly bounded with the Global Economy, this major concern will enforce an appreciation indication in the Chinese Currency. A centrally manipulated Monetary Policy, a powerful currency supervised with enforce depreciation, is too protective for an Open Financial and Commerce Market (Ronald McKinnon et al., 2011).

CHAPTER 2. The Geopolitical dimension of the Yuan-Dollar exchange relationship

2.1 Introduction

In two cross-border transactional operations, countries regulate their commercial and financial relationships through the underlying exchange rate between respective domestic currency types.

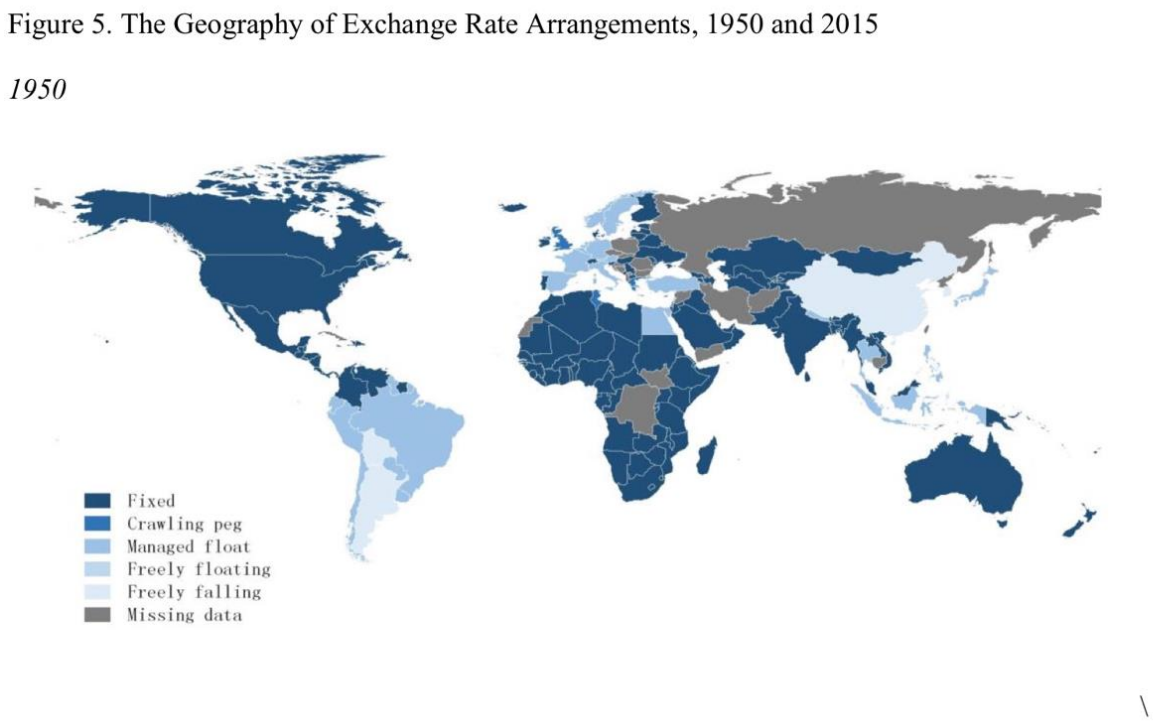
The exchange rate is typically correlated by two separately established Exchange Rate Regimes that each country-block adopts to regulate own business relationship with the rest worldwide environment.

The USD dollar stands as one of the world currencies given by the United States economy position and its international transaction volumes overtime. As one of the world currencies, USD dollar is usually considered as the base currency pegged by most other countries currency types, consequently its monetary impact is heavily pointed out as one of the main health economy character.

A Yuan-Dollar Exchange Rate Regime is interpreted as a transnational correlation between a relatively flexible Exchange Rate Regime pegging on a basket of currencies and a totally free-floating Exchange Rate Regime. The US free-floating Exchange Rate Regime is determined by global expectation of Foreign USD reserves; demand and supply of USD relative to other world currency types and its expected inflation. The Chinese Renminbi apparently seems less risky and less uncertain as its own Exchange Rate is related with more currency types into account. Among its currency basket, USD dollar is still playing a central function that withstands on the major exchange rate impact position, both for Chinese Renminbi as well as other currency types.

In 1950s, majority countries participated in Bretton Woods system: these adhered on Bretton Woods system pegged their domestic currencies to the US dollar; while the USD itself was convertible to gold at a fixed rate. That past era was characterized by a gold equivalent standard, a widespread foreign exchange and capital account restriction of multiple exchange and capital flows practices, as discussed in DeVires studies in 1987. Most countries which participated in Bretton Woods system were found in Northern America, Africa and Australia. Some Middle East countries also relied on Bretton Woods system for currency exchange stability. Whereas the rest of the world were remained on Soviet block exchange system. Most European countries remained pegging on ruble characterized by freely floating and managed floating systems; in China there was a considerable freely falling exchange rate. It is unknown the exact exchange rate system adopted by Soviet Union in that iron cushion period. (Ethan Ilzetzki, et al., February 2017).

Figure 17. Exchange rate regime in the world (1950)

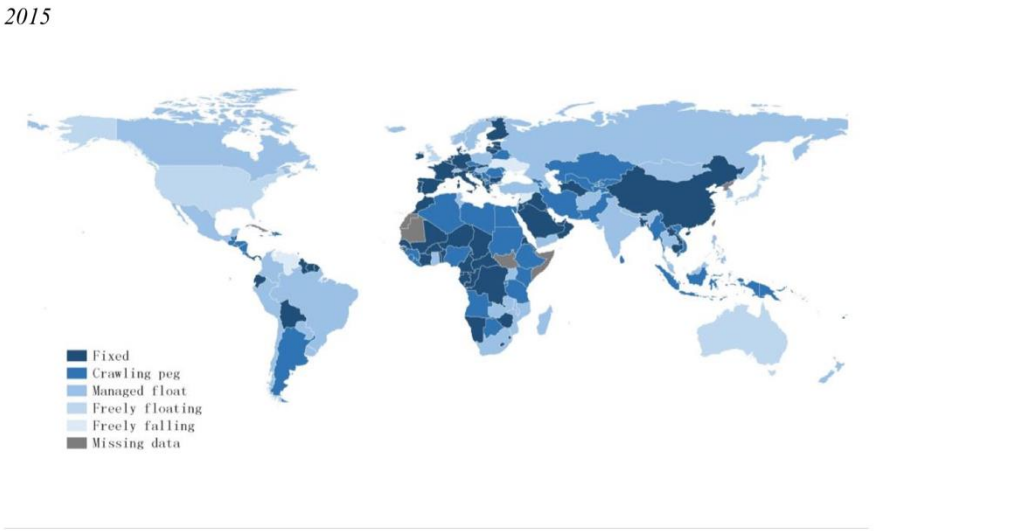


Source: Currency yearbook, various issues, International Monetary Fund, International Financial Statistics. Pick and Sedillot (1971), Reinhardt and Rogoff (2004) and sources cited therein

The Bretton Woods system collapsed in 1971. The Federal Government adopted a new flexible exchange rate system, allowing the USD being freely floated by market-orientation. In 1973, major economic blocks followed a freely floating exchange rate mechanism. This radical transformation was accompanied with stock prices instability, oil price skyrocketing and major macroeconomic shocks. This freely floating USD exchange rate still dominates the US exchange rate policy, which is observable in the 2015 US exchange rate system in Figure 18.

The RMB evolution instead is a reversed process against USD performance. In 1994, the Chinese central government intervened in monetary and financial markets, imposing a restricted monetary policy with a stable exchange rate against the USD initially. Incentive of shifting from a pressed exchange rate system toward a market-regulated system raised since 2005. However, the effort in promoting a freely adjusted exchange rate system is still frivolous. In 2015, Chinese exchange rate system still foot-dragged in a fixed exchange rate regulation (Ethan Ilzetzki, et al., February 2017).

Figure 18. Exchange rate regimes in the world (2015)



Sources: Currency Yearbook, various issues, International Monetary Fund, *International Financial Statistics,* Pick and Sedillot (1971), Reinhart and Rogoff (2004) and sources cited therein.

Source: Currency yearbook, various issues, International Monetary Fund, International Financial Statistics. Pick and Sedillot (1971), Reinhardt and Rogoff (2004) and sources cited therein

Both USA and China have adopted a differently Exchange Rate Regime modifications in 2015, if compared with 1950 (Ethan Ilzetzki, et al., February 2017). However, in 2015 the Chinese Exchange rate was still considered as the strictly fixed one since the 811 Exchange Rate Regime reform was implemented on later yearly stage.

Before 1970, the US Government pegged its exchange rate regime on gold standard. The gold standard is the price-specie flow model of David Hume which developed in eighteenth century. David Hume enhanced the gold durability in cash flows, and the banking system in financial market becomes negligently functional. David Hume held the idea the international transaction leads gold flows between countries: a net export country accumulates excessive gold in domestic market which leads necessarily the price increase; a net import country outflows too much gold, this deficit of gold in market circulation will nevertheless lowers domestic price level. A higher price level in domestic market will shift customers to a higher import demand; while a lower price level in domestic market will induce customers to consumer more of domestic goods. This automatic gold surplus or deficit regulation contributes two main features in nineteenth century world: the international capital flows engagement and the absence of international fold shipments on the scale predicted by the model. Banking institutions intervene in international transactions through circulation of paper issuance pegged on gold. Paper-money circulates in commodity market and gold transfer is charged on inter-bank systems. Gold deficit or surplus can be regulated by interest rates by encouraging or discouraging inventory accumulation. Central banks can pursue eventual objectives through enhancing the gold convertibility. This mechanism requires the pre-emptive action of widely accepted gold standard to facilitate international transaction.

The gold standard practice was traced back in European inter-continental transaction histories. Nonetheless, this gold standard practice revealed several limitations through bank engagement: the banking system was limited in inability of predicting and moderating the expected cycles in activity; the banking institutions were put into debate of being the lender of last resort—banks actually couldn't limit the bank panic once crisis burst out. However, the inherent stability of gold standard made itself resurrected during interwar instability, even the global supply of gold remained inadequate. The previous fixed Exchange Rate Regime granted a more credible currency regime through only USD pegged on gold. The lack of effort in reforming a new adaptive exchange mechanism and the necessity for a stable exchange regulation put gold standard dominant in inter-war era. However, the no central government intervention in exchange adjustment started to emerge in 1920s (Barry Eichengreen, 2014).

After the collapse of Bretton Woods system, an increasingly foreign transaction volume, the necessity in exchange policy reform, and the withdrawal of Federal Government from exchange mechanism together made the US Government pushed toward the Floating Exchange Rate Regime. The Floating Exchange Rate Regime granted a more responsive monetary atmosphere in investment and savings criteria as well as a more inflationary space in monetary regulations.

Whereas Chinese Government evolved its Exchange Rate Regime in the vice versa direction: in 1950, the Chinese Exchange Rate Regime was under freely falling condition due to the national economy restriction under government supervision. The Chinese Government started to convert its Exchange Rate Regime from 1994, the major concern of Chinese Government was the internal economy stability and a more securitized growth sphere. The Central Government was allowed to take the Exchange Rate under its monopolistic control through the Fixed Exchange Rate Regime, and the suppressive Exchange Rates had facilitated Chinese Export volume and net savings. This however triggered the Chinese internal economic growth.

Each global giant has incorporated what is essential for respective future economy growth pathway. The United States, as the leading economy body, would more concentrate on financial market efficiency with the main goal of attracting more investors into US financial market. The target would be achieved through low interest rate compared to other financial market, and high liquidity of monetary transactions would need a floating and free-management basis. The US financial market is characterized by tight financial market regulations and high demand of US financial investment opportunities. This demand is purported by international financial trading markets in New York and Chicago. A huge transaction volume will nevertheless make USD extremely outstanding since the value is supported by American strength. While inter-banking system takes a significant portion in international transactions, investors would contribute a great piece of it into play. The US Government needed the modification of freeing the financial market, leading more business opportunities for foreign investors in US financial market.

Chinese financial market is less mature and needs to be guided by strict Chinese financial market regulation (ACRA, February 28, 2019). As Government institutions are the major issuers of financial securities and the

commercial banks are the major holders, the market is highly supervised by national players, leaving less or no portion of stake to private investors. With over decades' under-evaluation of Chinese RMB, it has favored the Chinese Export commodity market and employment position. The Chinese labor was highly demanded by its low wage and high quantity available for decades. This economic acceleration gives Chinese market an opportunity of growth in international level. While the lag in appreciation of Chinese RMB has been observed as the menace for US manufacturing market and long been criticized as unfair trade, Chinese exchange rate depreciation has maintained US financial market low interest rate, in favor of US financial market attractiveness over time as well. In turn, the Fixed Exchange Rate Regime pegged on a basket of currency has still limited the foreign currency inflows in Chinese financial market. The benefit in commodity market in expense of exploiting the investment opportunity has been guided by Chinese aim at commodity price stability. The floating exchange rate will nevertheless produce the currency fluctuation (Investopedia, August 23, 2019).

Evolution of two blocks' respective exchange rate regime is nevertheless a historical and political outcome. The choice of a convenient Exchange rate regime is for a prompt response for both market movements and capital allocation. The impossible trinity imposes a discounted exchange rate policy in each Government's option: Chinese exchange rate system enhanced a transnational goods and services trade, the financial lending and borrowing remains obscure and hardly to assess (Ethan Ilzetzki, February 2017; Robert J. Carbaugh, 2008).

China is urged to change its linkage with USD since 2015. This modification incentive was triggered by the background changes. Chinese is recognized for its commodity transaction strength, its capital market remains less attractive to foreign investors for value-losing: this however will obstacle other currencies anchoring on RMB. On the flip-side, American hostility still threaten the Chinese objective of promoting RMB as an international currency type. As US was fervent in electing a conservative president and the protectionism attitude of its own citizens' workers reached a new height in American society. Chinese currency depreciation is strongly accused by employment deprivation by the United States manufacturing sector. This tight international relationship converted itself in the limit of trade war burst.

Chinese Government has to spread possible USD currency risk, limiting the currency risk to maintain its policy target. While the US Government sways from cooperation, Chinese Government has to take into account the relevant hostile attitude as well. Relevant policies reform is usually followed by business relationship changes, and that modification conversely has been incorporated to renew that rivalry partnership.

In the analysis published by Stefan Avdjiev group in 2018, it cited that USD pegging system has the underlying global risk factor from investment perspective. The paper analyzed the strength of USD through the impact on financial market, that with the underlying relationship among three focuses: USD strength; cross-border bank flows and real investment. From this observation, it can be concluded that the USD is

strongly negatively related with the cross-border bank flows, while USD strength is positively related with real investment volume in a determined country. That huge correlation between one country's economy and the USD strength has revealed the volatility underlying the Fixed Exchange Rate Regime pegging on USD. This observation granted a more detailed consideration behind the reason of Chinese Reform implementation (Stefan Avdjiev, 2018).

2.2 The geopolitics of the RMB evolution

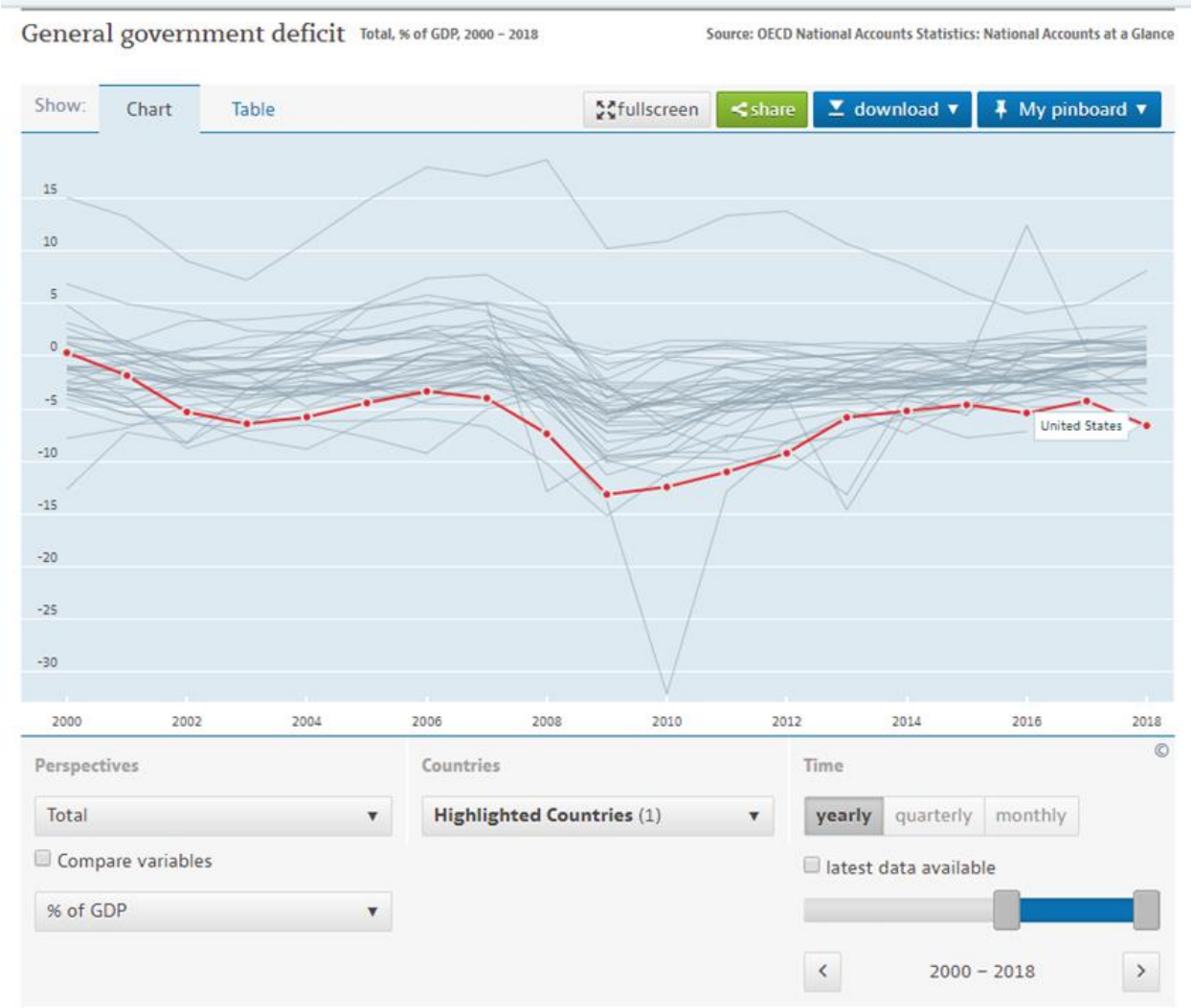
“In this situation it is of strategic importance that we are it clear to Washington that we want to work together. However, also: that we will not allow you to go over our hands, and at our expense. That is why it is right to protect European companies legally from sanctions. It is therefore essential that we strengthen European autonomy by establishing payment channels independent of the U.S., a European monetary fund and an independent SWIFT system.” This manifestation was derived by US against Iran for extraterritorial reach on US action of global payment system and global financial system. This American hostility toward Iran somewhat explained the tight geopolitical relationship between US and China (Marcus Vinicius De Freitas, June 17, 2019).

China has been put into core of international system. The Chinese GDP ranks as second largest economy, solely after the United States. The US is accustomed to override its international power to discount other countries’ international dominance. The sole-protagonist mechanism however triggered the leading-discount in the rest of the world. The objective in Chinese monetary policy of expanding RMB globally is certainly a threat of USD dominance threat (Sean Ross, Mar 28, 2020).

The global USD dominance is hugely impacted by 2007-2008 Financial Crisis. A freely floating exchange rate system advanced the USD shocks to domestic market, its inherent instability in freely floating system causes huge uncertainty in American investment, trade and firms’ businesses. Whereas the US huge current account deficit, trade imbalance and foreign debt, these elements together threaten the widely held trust on USD (Sean Ross, Mar 28, 2020).

The US Government trade deficit started to worsen sharply after the Financial Crisis impact between 2007 and 2008, dropping down more than 84% as the consequence of spending more to leverage financial problems and inter-banking solvency risks. The US Government Budget has long remained in deficit outlook in recent two decades, as Figure 19 below shown. A government deficit may crowd out private borrowing, manipulate capital structure and decrease net exports. In paying up government deficit, Federal Government may take into account the Fiscal policy as the main remedy, which inevitably triggers both private demand decrease and price inflation. (Sean Ross, Mar 28, 2020).

Figure 19. US General Government Deficit

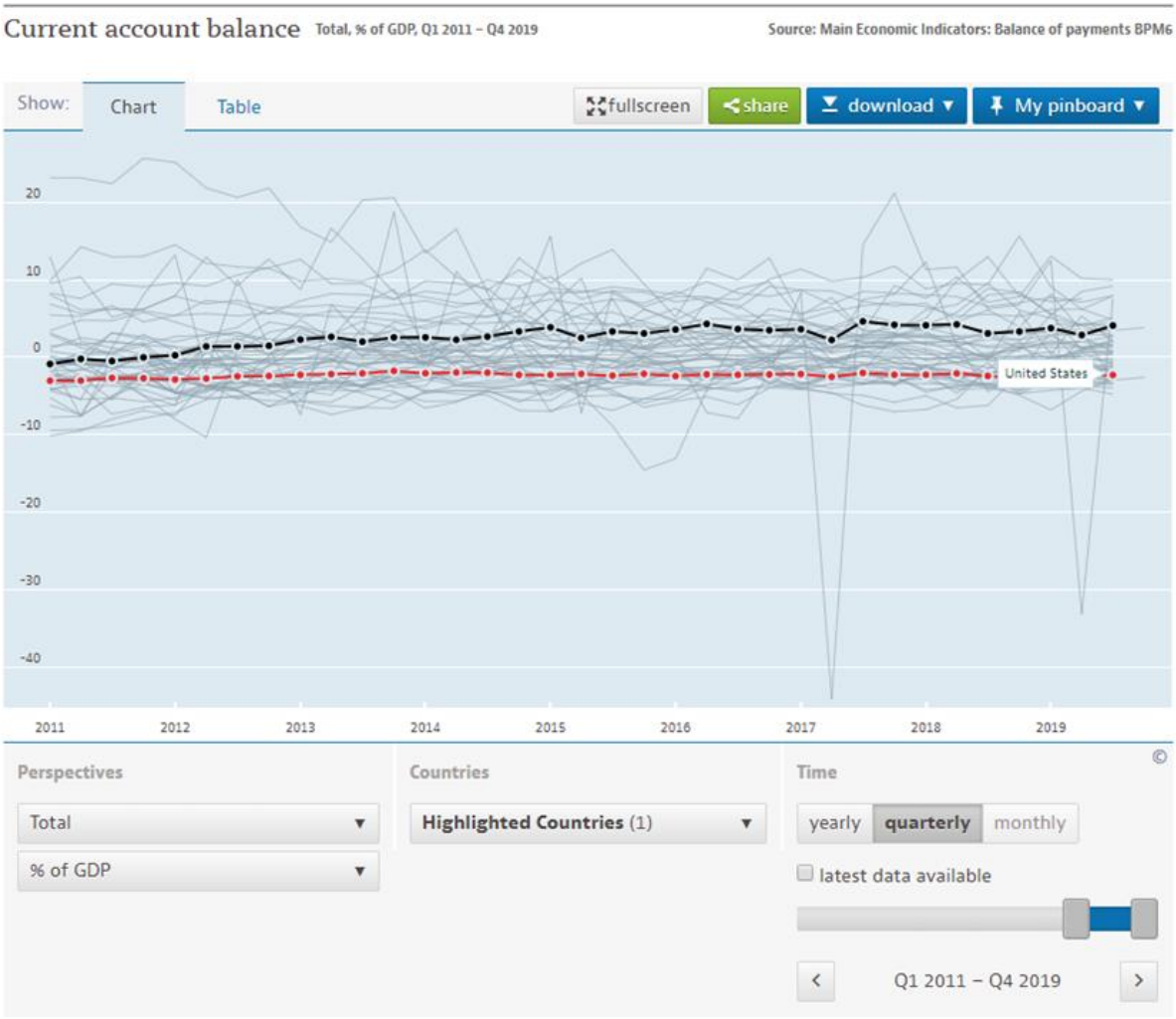


Source: OECD National Accounts Statistics

Until 2020, it is estimated total US fiscal deficit accumulated at 1.103 trillion dollars. The free floating exchange rate policy makes Federal policy makers to adopt even inappropriate domestic policies. The long-term harm of fiscal deficit will nevertheless challenge the USD dominance.

One of the advantages of free floating exchange rate is the automatic current account adjustment mechanism. A floating exchange rate can compensate the deficit through depreciation mechanism. This mechanism works out for enhancing the export competitiveness. As Figure 20 described between 2011 and 2019. The US current account deficit has remained relatively stable over time. However, the ratio was constantly found as negative value, which expressed the net export value smaller than the net import value for more decades.

Figure 20. US Current Account Balance



Source: OECD, main economic indicators

Chinese incentive in internationalizing RMB has put forward a considerable threat to USD dominance. This strategic internationalization process is intentionally grabbing a set of opportunities.

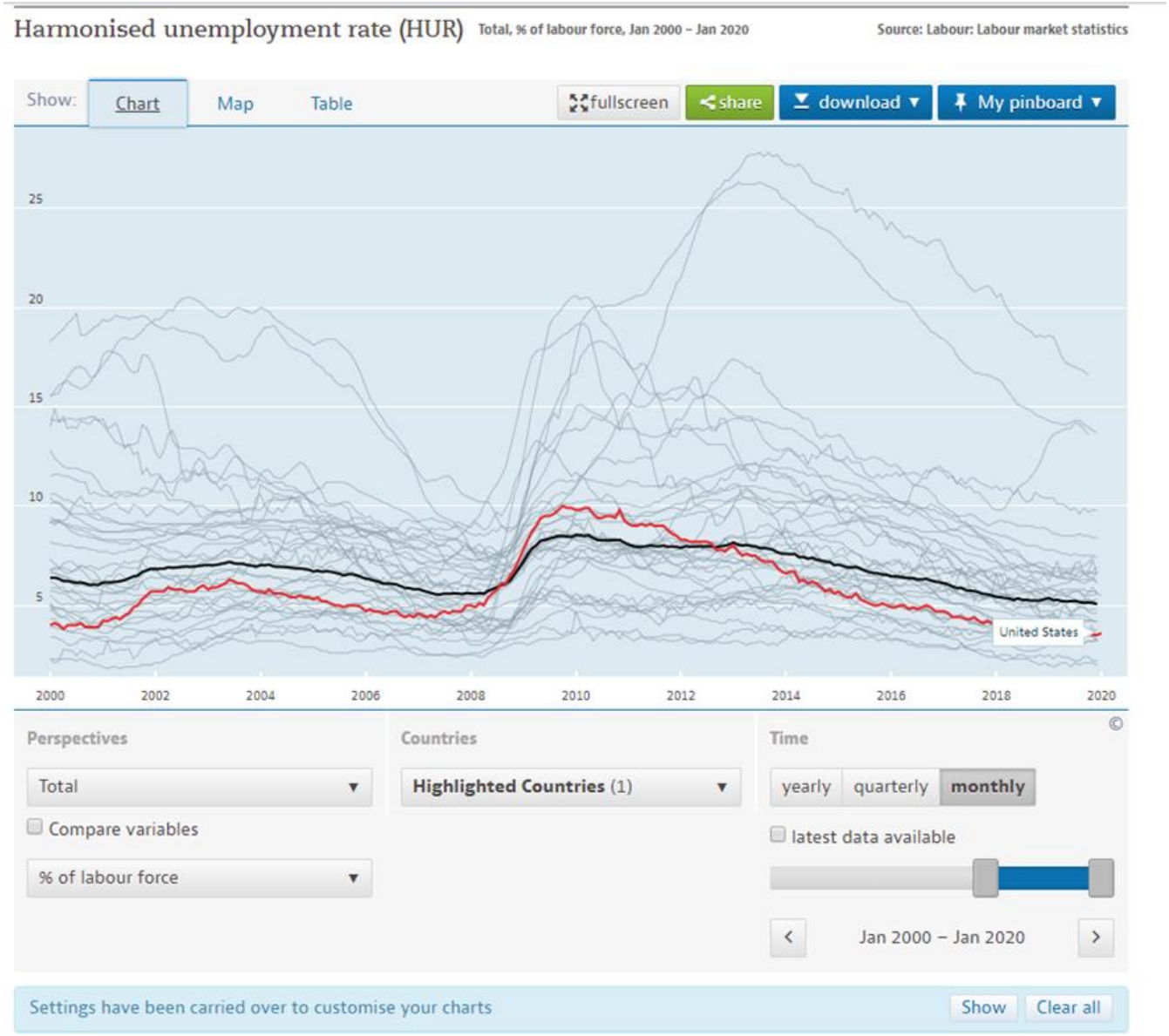
As Figure 21 shows, the harmonized unemployment rate chart indicated that, the rate boosted up instantly after the Financial Crisis, together with two charts collected before, to highlight the rise of US incentives against Chinese Economy growth. Furthermore, the US issues would be treated with more protective trade policies in order to alleviate its domestic employment threats.

The United States instead adopted the anti-dumping measures against Chinese employees and exports in order to protect home industries and manufacturing. The under evaluation of Chinese currency became less effective than in the previous periods. This attitude has reached a higher level after new US presidency which imposed a higher tax tariff on Chinese export goods into US continent.

The underlying exchange rate regime correlation between two economy blocks also highlighted the tight commercial relationship: Chinese Government was urgent in spreading the currency peg danger into a wider

basket of currencies; US Government with free-floating exchange rate system still has got the concealed currency risks.

Figure 21. US Harmonized unemployment rate



Source: OECD, labor market statistics

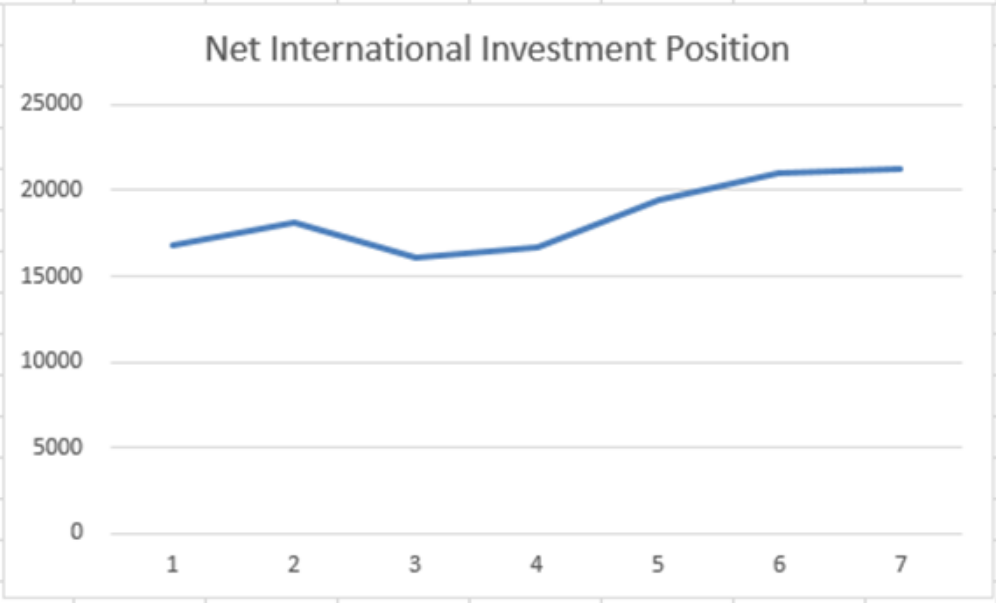
Chinese international investment position gradually ramped up, reaching more than 2 trillion USD at the end of 2018. During the shot of reform, the investment position also suffered a slight downside trend that lasted until the end of 2015. However, the investment position has been relatively improved compared with previous time. Figure 22 in late stage of 2016 has considerably manifested the Chinese effort in improving its international investment position.

Figure 22. China's International Investment Position

China's International Investment Position (annual)

Unit：in 100 million of US dollars

Item	end-2012	end-2013	end-2014	end-2015	end-2016	end-2017	end-2018
Net International Investment Position	16749	18091	16028	16728	19504	21007	21301



Source: Chinese Foreign Reserves Administration Statistics

In Figure 23, Chinese international trade in goods and services position became worse after the Reform announcement in 2015. Total transaction of goods and services volume withered until the end of 2018, during the period of trade war threat between China-US. The overall trade position has improved in 2019. The commodity market suffered less from exchange rate regime reform. The rebound continues until 2019. It is observable the commodity market ability in absorbing the exchange rate reform shock in late 2015. Both investment level and commodity position pointed out the outstanding business performance after Chinese exchange rate reform pegging on a wider basket of currencies. Chinese government prosecutes its effort in RMB internationalization. An internationalized RMB will nevertheless reduce foreign exchange risks that Chinese corporation will face, the foreign currency risk, and furthermore, reduces Chinese foreign reserves holding (Marcus Vinicius De Freitas, June 17, 2019).

This RMB internationalization effort is also recognized in the research conducted by Ethan Ilzetzki in February 2017. Chinese government has long engaged in credit and swap agreements with foreign banks. Even the data of substantial cross-border financial transactions remains opaque, the author reasonably

believes the RMB has already become an anchor currency pegged by other currencies, especially the ASEAN currencies. This conclusion is proved that a modest RMB devaluation triggered a marked depreciation of several Asian currencies in 2015 (Ethan Ilzetzki, et al., February 2017).

Figure 23. Chinese International Trade in goods and services

International trade in goods and services of China (in USD)

Unit: USD 100 million

Item	2015	2016	2017	2018	2019
Balance of trade in goods and services	308	207	184.75	93.58	180

Source: Chinese Foreign Reserves Administration Statistics

These analyses conducted in RMB evolution has confirmed the US fear in an internationalized RMB. However, a conclusion for soon arrival of the internationalized RMB is premature. The USD still dominates the internationalized currency basket, holding as the major foreign currency reserves for most countries. Even the RMB progress is considerable, the government still faces a bunch of challenges to get ready an global RMB: the flexible exchange rate policy implementation, the political remedy against the sudden depreciation after flexible exchange rate adoption, and the most relevant, the US pressure.

The RMB evolution has improved its geo-economic power. The upfront US challenge will instead stress the RMB internationalization process. This challenge is already relevant in US-China trade war for global economy dominance. What is coming for an expected global RMB is still hardly strived for (Marcus Vinicius De Freitas, June 17, 2019).

CHAPTER 3. Prospects of the Yuan as an international reserve currency

3.1 Introduction

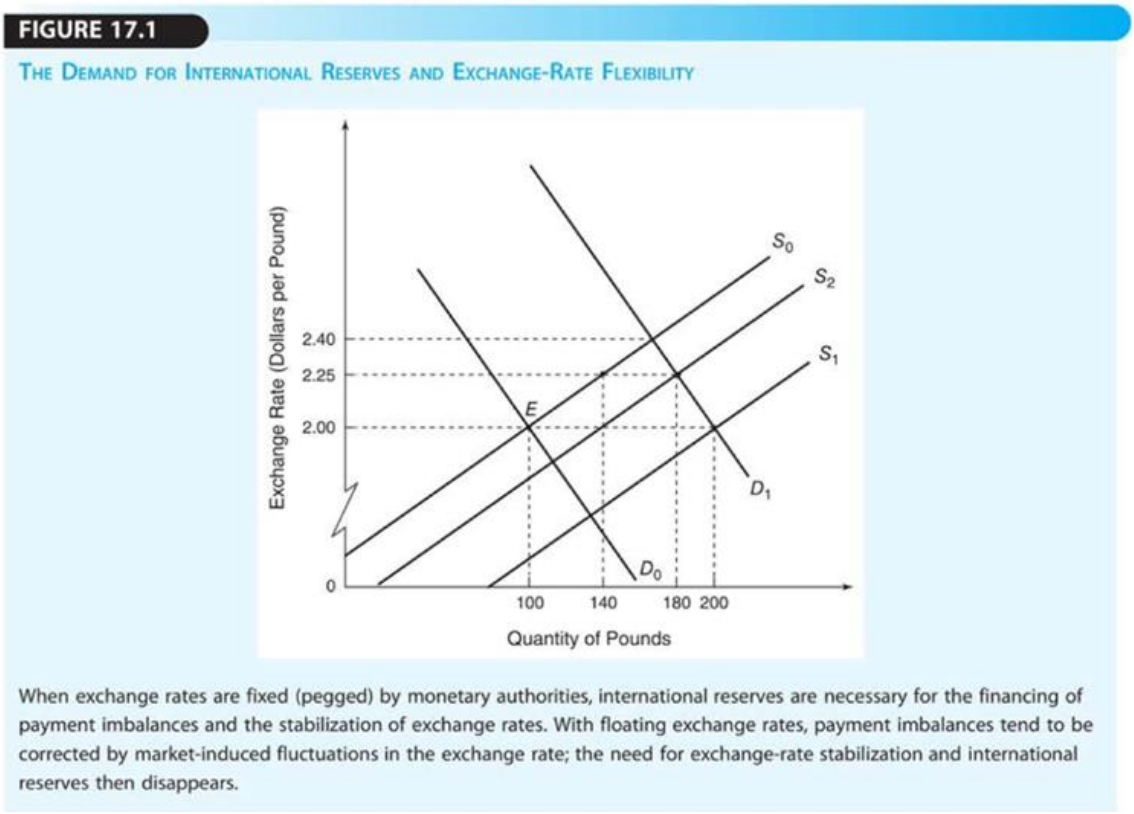
Each nation needs international reserves. The international reserve has got cash-in-pocket function that balances the financial deficit position (Robert J. Carbaugh, 2008). This function will temporarily leverage a State's economic position that allows central governments to adopt the most suitable monetary policy in gap-filling the deficit account. The international reserve is regulated by market basic principle of demands and supplies.

The book of Robert J. Carbaugh summarizes two factors that regulates the demand for international reserves: the monetary value of international transactions and the disequilibrium in balance-of-payments positions. Another important regulator of demand of international reserve is its implicit exchange-rate flexibility degree of underlying currency.

There's an explanatory example of demand for international reserves and exchange-rate flexibility in Figure 24. It represents the exchange-market position of the United States which engaged in trade with the United Kingdom. It starts from central point E as the original equilibrium. The demand side is constructed in base of US imports: the increase of US imports leads the demand curve outward. This demand growth will generate a higher demand for pounds. While the dollar depreciates from 2 to 2.25 in exchange for pounds, the Federal reserve is required to adjust for rebalancing the exchange rate system. If the Federal reserve adopts a fixed exchange rate regime, total governmental adjustment shifts from S0 to S1, from pounds quantity demand of 140 to 200. This international reserve of pounds is maintained for eliminating eventual disequilibrium. S2 represents a situation in which consists some degree of automatic adjustments allowing the market rates to float within a very limited range around specific exchange rate. This automatic adjustment narrows the governmental intervention from S0 to S2: it is required to increase US international pound reserves from 180 to 200 (Robert J. Carbaugh, 2008).

The degree of exchange-rate flexibility of the underlying currency allows automatically small-span adjustment through synchronized currency floating rates. Certainly this small movement has facilitated the government intervention in aim at stabilizing currency value in the exchange rate market (with lesser effort contribution). Together with other additional factors, such as automatic adjustment mechanisms; economic policies and international coordination of economic policies (Robert J. Carbaugh, 2008), this bundle of factors together have potential impact on each nation's international reserves requirement.

Figure 24. The Demand for International Reserves and Exchange-Rate Flexibility



Source: Robert J. Carbaugh, International Economics, 13th Edition

Theoretically, one nation monetary system degree of freedom is inversely correlated with the reserve quantity in demand (Robert J. Carbaugh, 2008). A country with free floating exchange rate system will spontaneously respond its deficit balance sheet position that smooth its payment imbalances. As the exchange equilibrium will automatically absorb market-oriented flotation, the nation will always deposit its own balance at neutral position.

The supply of international reserves is composed by owned reserves and borrowed reserves (Robert J. Carbaugh, 2008). This eventual borrowing and lending mechanism has enlarged transaction network, unifying each nation into cooperation as well as supranational organizations, and in turn, each nation has supervisory power in scrutinizing the respective borrower and lender to harmonize the international businesses in essence.

International reserves can be bounded by different currencies, or currency equivalents. Dollar plays its essential position in reserve currency to regulate transnational businesses, as many wealth kept in dollar-denominated assets. The popularity of dollar in international transaction has somewhat facilitated transnational businesses and reduced the businesses costs, saving expenditures through economies of scale impact. This advantage has left profitable opportunity to other nations in trade union. In addition, the free floating dollar exchange rate also has strengthened its reserve types determination. The undeniable importance has been supported by its sophisticated economy and its attractive financial market. While its

accumulated government trade debts have rendered USD relatively weaker than decades ago (Robert J. Carbaugh, 2008).

However, the USD has exposed itself with unconcealable defects in recent periods. It has gradually revealed the potential weakness and its prestigious position has been eroded. The increasingly high currency risk and unstable global balance become the trend in favour of replacing USD as the international reserve currency to other currency types. One of the purposes was SDRs.

The SDRs refer to special drawing rights. This currency type has been widely supported by Chinese Government aiming at leveraging financial risk related to the USD use. The value of SDRs are determined by the bundle together with euro, yen, pound, and dollar with weighted average importance, and further yuan and rubble as other major currencies (Robert J. Carbaugh, 2008).

The advantages of using SDRs are leveraging the depreciation in the USD currency and stabilizing dollar-denominated assets value. The main goal of SDRs is preventing international currency risk and granting a protected financial and investment market. However, the disadvantage of using SDRs is relevant as well: the currency value is backed only to the IMF reputation, which is more vulnerable than the USD. The SDRs usage also deprives one of the most important roles of international currency: since it is less widespread than the USD, each nation has to convert its domestic currency into SDRs in order to transact transnationally. This behaviour will inevitably increase the transaction costs, and as the consequence, lowering the overall consumption level and investment volume (Robert J. Carbaugh, 2008).

The SDRs were firstly designated for balancing the accounts of the participants as IMF's members. A IMF member should primarily convert the SDRs to freely usable currency in compliance with limitation of holdings of SDR not more than three times. Another advantage of SDRs is to settle financial obligations. IMF member countries can lend loans from SDR to meet its financial urgencies. SDRs are not created for transaction provisions. Instead, the currency type is pegged back to a basket of most widely used currencies and designed for supplementary foreign exchange reserve assets; while before the Bretton Woods system collapse, the value was pegged on gold standard. The basket of currencies that SDRs pegged into would be reviewed each five years to fresh international currency weights over time (Essays in Economics, November 2018).

A great drawback of SDRs being the potential international reserves is its weak backseat that based only on IMF good faith. Its unconventional use is also identified through higher transaction costs of converting from one currency into SDRs and then convert back to original domestic one. This complicated process have massively increased the investment and business costs (Robert J. Carbaugh, 2008).

Dollar dominance is not without pitfalls. Its large holdings into other countries hands is a historical-tracking accumulation. Most of two world wars participants were enforced to lend money and weapon from America. Subsequently they signed the Bretton Woods Agreement pegging on US dollar value to fix own domestic

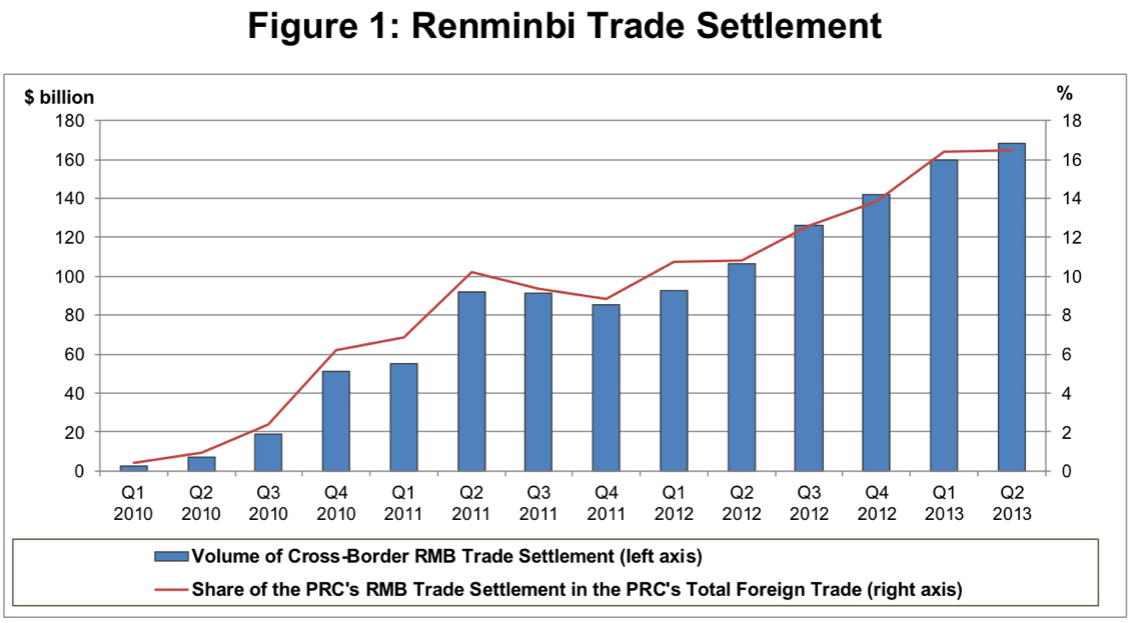
currency exchange rates. It has unavoidably put dollar accumulation (also federal securities equivalents) into other countries' hands. Its leading position has further been strengthened with the size and strength of the U.S. economy (Richard Best, updated Mar. 20.2020).

3.2 Chinese yuan characteristics

The growing importance of Chinese RMB currency has put its role as international reserve currency into fervent dispute. Both Chinese Yuan diffused usage and RMB-denominated bond issuance increased in recent decades. China, as the leading world exporter and the second largest economy measured by Gross Domestic Product index, has putted itself into crucial role of using Chinese domestic currency upholding in international plan. Being an international currency reserve should take more accurate adjustments into account further, as more experts involved into that currency issue. To a wider extent, the whole Eastern Asian continent has been enlarging its international economy power, that has further enhanced RMB internationalization process, since RMB plays the dominant role in Eastern Asian economy (Barry Eichengreen & Masahiro Kawai. January 2014).

There is a broad overview of Renminbi trade settlement entailed from 2010 to 2013 in Figure 25. The total volume of cross-border RMB trade settlements are constructed with histograms, whereas the chart indicates the share of the PRC's RMB trade settlement in the PRC's total foreign trade. Both two indexes follow a growth pathway. In the second quarter of 2010, total cross-border trade settlement is merely 1% of total foreign trade.

Figure 25. Renminbi Trade Settlement (2010-2013)



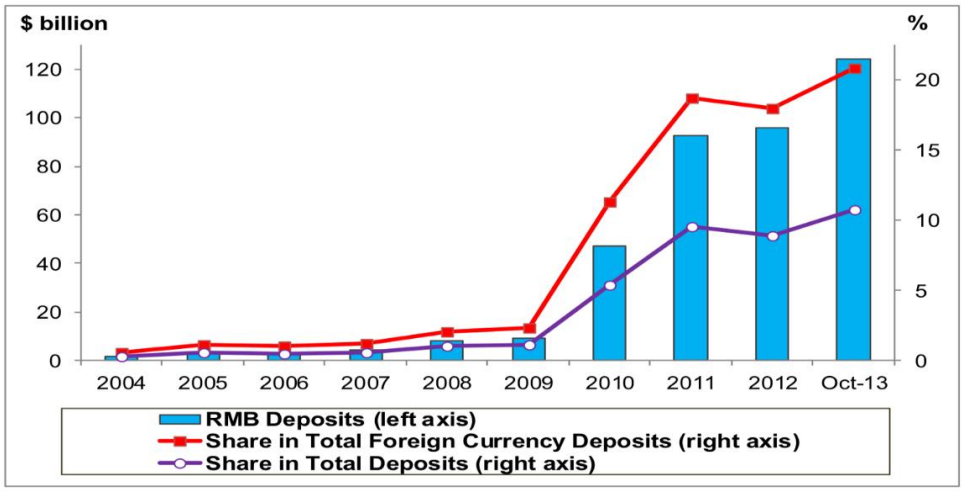
PRC = People's Republic of China, RMB = renminbi.
Sources: CEIC, PRC Premium Database; International Monetary Fund, *Direction of Trade Statistics.*

RMB trade settlement had increased by 17-fold in the second quarter of 2013, compared to the first quarter of 2010, reaching 16.5% of the PRC's total trade. The analysis has revealed that more than 80% of these trade settlements been observed in Hong Kong, which considered the restrictive use of RMB offshore. At the end of 2010, the report stated there was an imbalance in RMB receipts and payments. This budget bias

nevertheless reflected the low availability of RMB in foreign markets, and investors were more prone in keeping RMBs for speculative motives, rather than for consumption attitude. While in first half of 2013, the imbalance has been narrowed, falling to 1:1:3 compared to the 1:5:5 previously. This fact turned out a shift motive underlying in RMB possession (Barry Eichengreen & Masahiro Kawai. January 2014).

China allowed to open RMB account since early 2004. However, between 2004 and 2009, total RMB deposits are not changing significantly. This little variation is also absorbed in both share in total foreign currency deposits and share in total deposits, as Figure 26 shows. The dramatic increase of RMB deposits in Hong Kong was caused by the trade settlement between Hong Kong, China and the PRC, allowing the RMB flowing back and forth between China mainland and Hong Kong. (Barry Eichengreen & Masahiro Kawai, January 2014). The trade settlement consists that, in July 2010, Hong Kong became the first place outside the Mainland to adopt the interbank market for RMB, in addition, it allowed other businesses around the world to open an account in Hong Kong and freely exchange RMB. This trade settlement allowed offshore banks to transfer RMB among themselves for the first time (HKT, Feb 2014).

Figure 26. Outstanding Renminbi Deposits in Hong Kong, China



RMB = renminbi.
Note: The data refer to December of that year, unless otherwise specified.
Source: Hong Kong Monetary Authority (HKMA) Monetary Statistics.

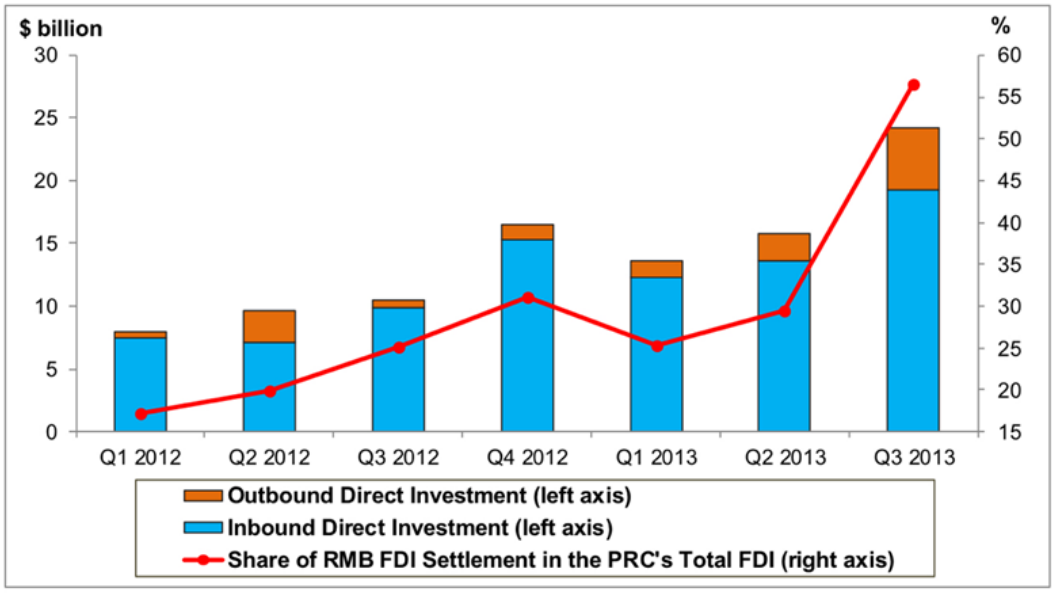
Source: Hong Kong Monetary Authority (HKMA) Monetary Statistics.

The data revealed a dramatic jump of RMB deposits in Hong Kong from $9.2 billion at the end of 2009 to $47.3 billion at the end of 2010. This sudden shift reappeared in 2011 accumulating total RMB deposit at $93 billion, whereas the increase rate slowed down during 2012; the total deposit resurrected in October, 2013, reaching $124.6 billion in total. What the RMB deposit increasing volume in Hong Kong implied is, the incentive of offshoring has reached at peak (Barry Eichengreen & Masahiro Kawai. January 2014).

While both outbound direct investment and inbound direct investment increase within the span between 2012 and 2013. This increase path suffered a small decline in the first quarter of 2013 compared to the last

quarter of 2012. Broadly the trend is continuously increasing, from the initial smallest under 10 of both two investments amount to more than 50 in the third quarter of 2013, as Figure 27 illustrates.

Figure 27. Renminbi-Denominated and Settled Foreign Direct Investment

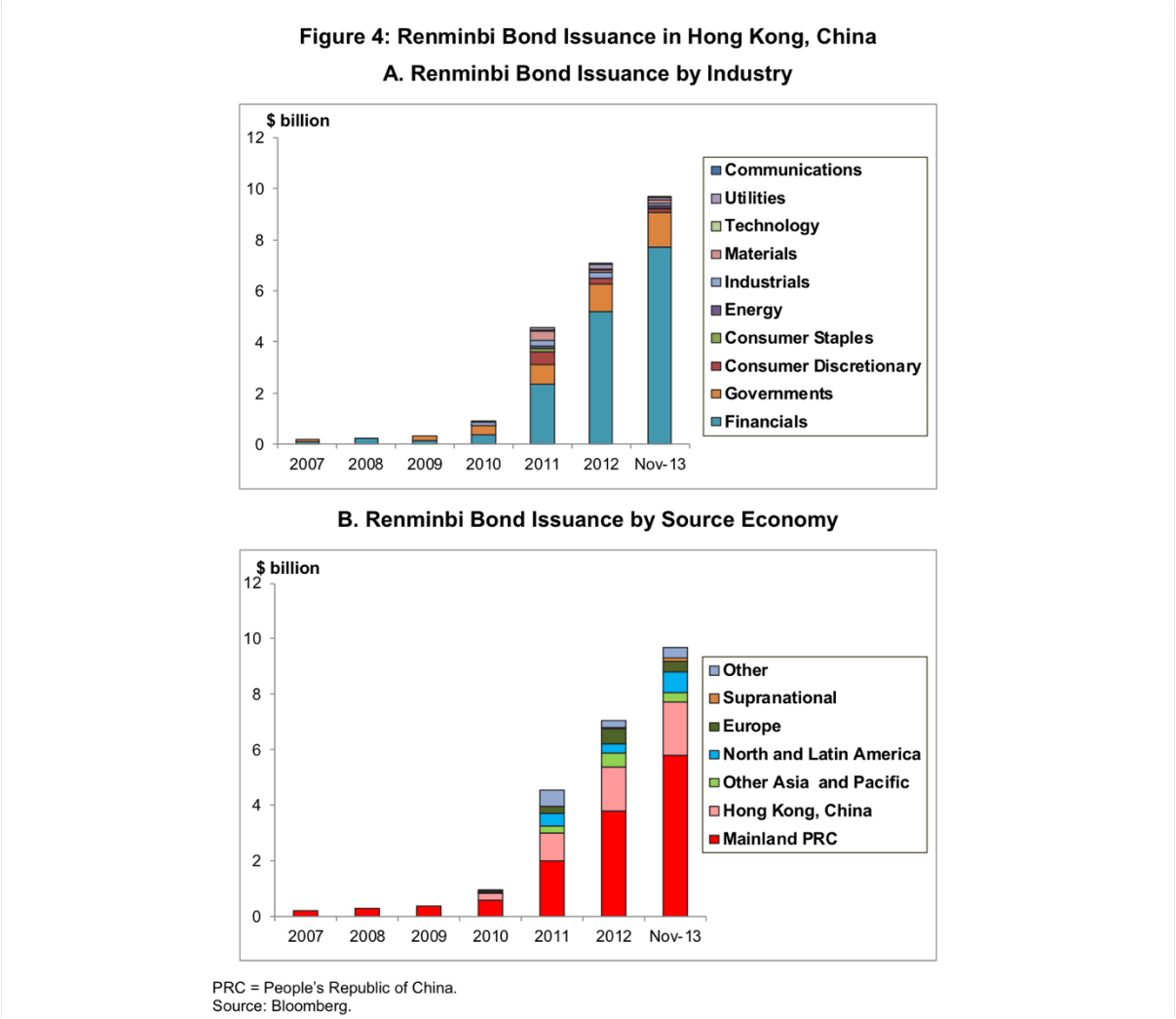


FDI = foreign direct investment, PRC = People's Republic of China, RMB = renminbi.
Sources: People's Bank of China, *China Monetary Policy Report*; CEIC, PRC Premium Database; Bloomberg.

Chinese Authority has also lessened the FDI range of assets denominated in other currency. The RMB Outward Direct Investment as been announced and implemented in 2011; at the same year, it is introduced the RMB Qualified Foreign Institutional Investor scheme to grant prequalified foreign banks and investment enterprises making onshore financial activities. The histogram clearly settled the enlargement of Outbound Direct Investment volumes ad the Inbound Direct Investment volumes, provided by a softer financial transaction regulations. (Barry Eichengreen & Masahiro Kawai. January 2014).

Other than the investment flows relaxation, the Chinese authority has nourished a greater portion of RMB denominated bond in Hong Kong, China. This increase has been manifolded from 2007 to 2013. The largest growth section is in financial section, and consequently, the governments section. In panel B of figure 28 illustrates the RMB bond issuance by source economy. This growth trend jumps from 2010 to 2011. This growth trend is already significantly represented by panel A configuration. The largest growth section is in mainland PRC, secondly the largest bond market is in Hong Kong, China.

Figure 28. Renminbi Bond Issance in Hong Kong, China



Source: Bloomberg

This faction where RMB-denominated Bond issuance has been breasted over time. As Figure 28 presented, the issuance of RMB-denominated financial securities rose from $0.9 billion in 2010 to $4.6 billion in 2011, and then to $7.1 billion in 2012. This RMB-relaxing in both onshore and offshore financial markets reflected the highly value expectation on RMB-denominated securities. (Barry Eichengreen & Masahiro Kawai. January 2014).

The gradual capital account liberalization process has nevertheless brought side effects: a more liberalized capital account accompanies with more financial risks and volatility. Chinese Government declared the willingness of bringing RMB into international currency basket; while at the same time more restrictions shall be introduced for currency speculation motives. Apart from capital account liberalization requirement, another character has been in dispute in considering RMB as an international currency reserve: the interest rate liberalization and Exchange Rate Flexibility. The People's Bank of China has positioned in determining the deposit interest rate, with the purpose of keeping it low over time. A more-market oriented interest rate would require the People's Bank of China out of such supervision, and further, all State-owned commercial banks should be fully commercialized in granting more transaction freedom. These liberalization from

central authority would bring the shadow economy question in peak, while the financial market blast and relative less capacity of absorbing foreign financial shocks would nevertheless make the liberalization less desirable. (Barry Eichengreen & Masahiro Kawai. January 2014).

The US dollar is now the widely accepted international reserve currency. The US has internationalized the dollar while the US was in one of the richest countries list in the initial period of 90s. While the China, even the country is supported by an overwhelming economy growth, it still stands in the country in development by GDP pro capita. Another facet of US internationalization aspect is the Federal Reserve System independence; whereas the People's Bank of China is nonetheless the economy guidance counsellor. (Barry Eichengreen & Masahiro Kawai. January 2014).

The Japanese Government has put forward its effort in Yen internationalization. While Japanese authority feared financial volatility taken by free international transactions, it didn't remove supervision barriers in granting a free financial environment. Between 1990-2000, the Japanese economy was hit by assets bubble prices which lowered Japanese economy growth rates. Another factor that impedes Yen Internationalization was the lack of short-term liquid assets in yen has far discouraged foreign investors in Japanese money and capital markets. The Japanese example has reflected the hardness of putting one currency into international currency basket and potential risks deserve more prudential actions. (Barry Eichengreen & Masahiro Kawai. January 2014).

Summing up the main prerequisites for Renminbi Internationalization: same treatment between state-owned companies and privately-owned companies; the delegated independence on price level; the systematic non-state involvement in private economy (Barry Eichengreen & Masahiro Kawai. January 2014). However, Chinese RMB has still long strive in getting its currency being internationalized. More considerations have to be prudently taken by internationalization action.

The Eastern Asian Economy is highly integrated. That regional integration pushed a wider same currency usage that correlates economies within various countries. The US dollar, as the international currency reserve, leads the transaction facilities within the ASEAN economy. While the surge of Chinese Economy has somehow replaced for US dollar importance.

ASEAN integration is necessarily withstanding in Eastern Asian Region progress, through which countries are inter-linked to facilitate Foreign Direct Investment and cross-border banking businesses. Chinese RMB remains pegged on fixing exchange rates would be more convenient for ASEAN economy stability. The introduction of US dollar peg in Asia between 1999 and 2003 introduced also the currency risk due to freely market-oriented exchange rate. The increasing Chinese economy role has raised its dominance in ASEAN region. Its gradual emancipation from Government-oriented policy has gradually increase its international business volume. The RMB is gaining a major role in international playlist that leads a more powerful influential in both ASEAN region and in other countries cooperation. While an inevitable economic forum

takes place of one unit currency dominance, this leads to the RMB and US competition in Eastern Asian economy. (Guglielmo Maria Caporale et al. 2016).

The paper interplays a two-facet analysis: the RMB has stronger ASEAN regions linkages, the increasing correlation between RMB and other ASEAN currencies would necessarily replace US dollar dominance for both economic and financial reasons; the RMB reform in 2005 has extended its exchange freedom somehow, but to gain a completely free exchange, the Chinese Government should withdraw from private economy environment. A tighter relationship between RMB and ASEAN regions would make RMB appearing as a more accurate currency index; whereas this replacement is not necessarily, as internationalisation is shifting forward for its pre-established future occurrence (Guglielmo Maria Caporale et al. 2016).

3.3 RMB and Foreign Direct Investment: a long-run perspective

The historical trail of RMB development is subdivided into various stages: the initial stage between 1949 and 1952; the middle development stage between 1953 and 1972; and the current progressive and stable stage from 1973 (Docs, February 2019).

The initial stage is called the National Economy Recovery, which started from the issuance of RMB at the end of 1948 from the People's National Bank. This period's main goal is to establish national pricing levels among various regions. While the lack of international financial flows impeded the international reserves and consumption quantity, this period was limited for stabilizing the RMB exchange rate to facilitate the transnational cooperation. However, a harsh improvement still made a very limited aim in improving the national economy (Docs, February 2019).

The second Socialist Society Construction period is covering the middle stage of RMB development: the RMB exchange rate started stabilizing over time. The national currency was under stringent control to monitor the exchange rate with other domestic currencies. In the meantime, the Chinese authority also burdened on foreign imports to improve domestic production and export. The economy was under hard progress, and the RMB was still limited its international cooperation (Docs, February 2019).

We may pay more attention in the third stabilizing stage where major political and financial modifications are found. One of the principal situations in economy internationalization is revealed in Chinese Outbound Foreign Investment that experienced a gradual expansion in last decades.

The Outbound Foreign Investment was under strict control between 1979 and 1989 periods. In this decade, the expansion was tightly regulated by government plans to monitor both domestic and oversea investment markets. Plenty of regulatory plans were issued by multiple controlling agencies (State Administration of Foreign Exchange; State Planning Commission etc). The main aim is to introduce foreign business plans, to synchronize two levels that maximize efficiencies for both domestic economy and foreign investors welfare. While most investment enterprises were State-Owned Enterprises or Collectively owned Enterprises, these models have however facilitated the coordination efforts (Pei Zheng, 2015).

Starting from 1981, in which total accumulated outbound FDI since that year was 39,36 million dollars, while in 1982, total outbound FDI flow reached more than 44 million dollar. (Table 2). The data provided by the study of Pei Zheng (2015) suggested that early stages of reform was primarily intended to develop international trade outlets and networks.

In 1982, total accumulated outbound foreign investment reached $44,000,00 USD, while total amount flied to $3.625 billion under 1982-1989 period, (Pei Zheng, 2015). In the late 1980s, sino-foreign joint ventures began appearing. In 1988, total M&As reached 16.5 million dollar, which mostly were contributed by

Chinese SOEs. In the following year, total M&As raised to more than 202 million dollar. In the following time-series analysis, outbound FDI investment reached its peak in 1998, 2001, 2005 and 2007. This chart does not follow a gradual growth, and same results are found in overseas M&A flow that peaked in 1998, 2003 and 2006. In 1985-1989, there were a rapid increase in the Chinese companies that engaged in outbound FDI. This sharp increase can be observed in table 4 for data collected between 1979-1989.

Table 2. Changes in China's outbound FDI flow and accumulated total, 1981-2012 (Unit: USD million adjusted with exchange rates of each year)

Year	Outbound FDI flow	Overseas M&A flow	Accumulated outbound FDI total
1981	–	–	39.36
1982	44	–	44
1983	93	–	137
1984	134	–	271
1985	629	–	900
1986	450	–	1,350
1987	645	–	1,995
1988	850	16.5	2,845
1989	780	202.1	3,625
1990	830	60.3	4,455
1991	913	3.2	5,368
1992	4,000	572.7	9,368
1993	4,400	484.7	13,768
1994	2,000	307	15,768
1995	2,000	249.1	17,768
1996	2,114	451.4	19,882
1997	2,562.49	798.8	22,444.49
1998	2,633.807	1,276.2	25,078.3
1999	1,774.313	101	26,852.61
2000	915.777	470	27,768.39
2001	6,885.398	452.435	34,653.79
2002	2,518.407	1,046.515	37,172.19
2003	2,854.65	1,646.524	33,222.22
2004	5,497.99	1,125.11	44,777.26
2005	12,261.17	5,278.97	57,205.62
2006	21,160	14,904.29	73,330
2007*	22,468.86	6,300	95,798.86
2008*	52,150	30,200	147,948.9
2009*	48,000	19,200	229,600
2010*	68,810	29,700	317,210
2011*	74,650	27,200	424,781
2012*	87,800	27,600	531,940

Source: UNCTAD, Outbound FDI/TNC database (www.unctad.org/outboundFDIstatistics)
Note: the numbers with * are Outbound FDI statistics released by the Ministry of Commerce (MOFCOM) and only include statistics about companies registered at, or inspected annually by, relevant government agencies. Numbers from such government agencies generally are much smaller than the actual ones, as a great deal of companies are established overseas without approval by, or registration at, these agencies (Xiong/Zhipen 2004), making it impossible for the latter to collect investment and operating statistics about these companies

The year-end number of companies that engaged in FDI businesses experienced a vast increase over time, as Table 3 illustrates, that, by the end of 1989, total year-end umber of companies reached 645 with

accumulated investment to $951 million. Between 1985-1989 period, there was a rapid increase in the number of Chinese companies making outbound foreign investments. Same growth pattern can be observed respectively in year-end accumulated total investment, reaching 2223 million USD in 1989 (Pei Zheng, 2015).

In November 14th, 1993, The Central Government adopted new exchange rate policy, which lowered the RMB/Dollar exchange rate from 5.8 yuan/dollar to 8.7 yuan/dollar. This RMB depreciation imposition has lasted over decades that pegging its international value on dollars (Docs, February 2019).

Table 3. China's non-trade outbound FDI, 1979-1989

Year	Year-end number of companies	Year-end accumulated total investment	Incl. year-end accumulated investment from Chinese companies
1979	4	1.21	0.53
1980	17	69.2	31.7
1981	30	76	34.2
1982	48	82	37.2
1983	66	101.2	46
1984	113	204	127
1985	189	296	197
1986	221	407	230
1987	345	1,780	640
1988	524	1,898	715
1989	645	2,223	951

Source: Deng Liqun, Ma Hong and Wu Heng: *International Economic Cooperation in Contemporary China*, China Social Sciences Press, 1989; the *Yearbook of China's Foreign Economic Relations and Trade 1986–1990*
Note: this table only includes statistics about companies registered at, or inspected annually by, relevant government agencies

The Outbound FDI then was shifted to market rules regulation in the following decade, between 1990-1999 (Table 4). The Chinese FDI business became an immense transaction portion that total accumulated of Chinese Outbound FDI arrived at $26.8 billion in 1999. In the decade of 1990s, the number of Chinese companies involved in outbound foreign investment was nearly thousand more than 1980s. The SOEs still played a crucial role in 1990s, however, both COEs and private/joint-stock companies also made aggressive investment businesses. Total year-end number of companies accumulated until 2616 in 1999 (Pei Zheng, 2015).

Table 4. China's non-trade outbound FDI, 1990-1999

Year	Year-end number of companies	Annual investment flow	Year-end investment total
1990	801	75	1,058
1991	1,008	367	1,395
1992	1,363	195	1,591
1993	1,657	117	1,687
1994	1,764	77	1,785
1995	1,882	130	1,858
1996	1,985	350	2,152
1997	2,143	196	2,349
1998	2,396	259	2,583
1999	2,616	591	3,174

Source: the *Yearbook of China's Foreign Economic Relations and Trade 1991–2000*
Note: this table only includes statistics about companies registered at, or inspected annually by, relevant government agencies

Between 2000 and 2010, the outbound FDI was under rapid acceleration in globalization policy adoption. The Chinese policy was driving by major concern of internationalizing transactions and participating actively in global economy forum. Most regulatory concerns were focused on export and import facilitations, aiming at peaking its own production and transaction capacity. Table 5 provides several data concerning the China's outbound FDI between 2000 and 2012. Both year-end number of companies engaged in outbound FDIs and total annual investment flow follow the increasing trend. At the end of 2012, the annual investment flow reached 87,8 billion USD, while total year-end accumulated investment reached 531,94 billion USD. (Pei Zheng, 2015)

Table 5. China's outbound FDI, 2000-2012 (Unit: USD in billion)

Year	Year-end number of companies	Annual investment flow	Year-end accumulated total investment
2000	2,859	0.551	3.725
2001	3,091	0.708	4.433
2002	6,960	2.70	29.90
2003	7,470	2.85	33.20
2004	5,163	5.50	44.80
2005	6,426	12.26	57.20
2006	Nearly 10,000	21.16	90.63
2007	Over 10,000	26.51	117.91
2008	Over 12,000	55.91	183.97
2009	Over 13,000	56.53	245.75
2010	Over 16,000	68.81	317.21
2011		74.65	424.78
2012		87.8	531.94

Source: the *Yearbook of China's Foreign Economic Relations and Trade 2001–2012*; the *2013–2012 Statistical Bulletin of China's Foreign Outbound Foreign Direct Investment*
Note: this table only includes statistics about companies registered at, or inspected annually by, relevant government agencies

The annual outbound investment flows increased from $0.55 billion in 2000 to $87.8 billion in 2010, increasing by more than 158 times through 10 years. Total accumulated investment peaked at $531.94 billion. Both annual outbound investment flows and year-end accumulated total investment were bounded upward, (Pei Zheng, 2015).

In July 2019, the foreign investment enterprises have implemented the Banking settlement and sale systems to regulate foreign currency reserves quantity. That highly monitoring exchange system has however impeded the freely currency movement. The Chinese Government has long strived in getting more internationalized to conceive a better internationalization process.(Docs, China, February 2019).

The Chinese Government strived in regulating RMB internationalization process so far, and both currency and investment restrictions were freed by a certain extent. From historical perspective, the RMB development was lessened by invisible hand control. While in January 2020, the US Federal Government withdrew the declaration, that regarded the China as Exchange Rate manipulator, confirmed Chinese Government in liberalizing its domestic currency exchange rate attempt, (Xinhua News, 14th January 2020).

3.4 Will China move to a flexible exchange rate regime in the near future?

China has been incentivized in global forum the engagement and trade cooperation. A better economy promotion model has altered its original restriction in economy manipulation. The Chinese Authority has long been in balancing private free economy incentives and social welfare maximization. This equilibrium adjustment can be observed in SOEs and public supports for financial depressions. While the flexible exchange rate will promote the RMB internationalization process, making the Chinese currency investment more attractive, this global shifting would however alter the domestic financial stability. The flexible exchange rate policy is considered more like a two-extreme policy: it figures out the obvious advantages, and at the same time, its effectiveness will be discounted by the potential weaknesses.

The RMB exchange rate policy would so far heavily depend on its own domestic financial environment; the internationalization engagement degree; the foreign trade freedom and RMB in international participation degree. The Chinese government has to evaluate to what extent the economy will be affected by new exchange rate policy. The 2015 exchange rate reform has however made an insight in future RMB policy development, but the certainty is still too early to confirm. The US toward Chinese economy hostility is still a fervent dispute; while the Brexit would also unveil the global trend in a more closed-economy prone. The global mixture attitudes would become the internationalization obstacle, that, the RMB policy revolution is still obscure and unforeseeable.

In the analysis conducted by researchers group of Urban J. Jermann, etc., (April 2019), it is found out that Chinese government is conducting a "two-pillar policy", aiming at balancing RMB index stability and exchange rate flexibility. The two-pillar policy consists both: "*the closing rates of the previous business day to reflect changes in market demand and supply conditions",* and *"as a means to maintain thee overall stability of the RMB to the currency basket.",* as announced in the first quarter of 2016 by the PBOC's Monetary Policy Report. The Urban group acknowledges the 2005 and 2015 reforms have improved the mechanism of setting the RMB central parity. The empirical analysis is conducted on the way of observing the variation swaying from the central parity. The group developed a tractable no-arbitrage model f the RMB under the two-pillar policy, using sample data collected between December 11, 2015 and December 31, 2018. The analysis is conducted in a way of observing how credible the two-pillar policy is viewed by financial market participants: the estimated probability was fluctuating between 60% and 90% for policy continuation until the unexpected change in central parity conducted in May 2017. This outcome confirmed, as the paper stated, the no-arbitrage model is outperforming the random walk model in observing RMB policy. With the model constructed, the group reinstate the empirical evidence for the two-pillar policy implementation aiming at balancing between flexibility and stability against RMB index (Urban J. Jermann, April 2019).

Furthermore, the no-arbitrage model also confirmed the markets' views about the sustainability of the current policy, with average probability of 66% of that policy being in place three months later (Urban J. Jermann, April 2019).

These empirical outcomes further affirmed the main target of monetary policy in Chinese governmental plan is equilibrating the flexibility and stability. This character will eventually put RMB as second option for international currency reserves, as there's less relevance in RMB satisfying all international currency reserves aspects. Even in recent future, Chinese government is less likely devoting entirely in flexible exchange rate, that main target of internationalize RMB as one of the main foreign currency reserve still keeps in future booklet.

Conclusions

As exchange rate system is centrally linked with a nation's economic and political strategies, eventual adjustments will certainly generate immense changes both from macro and micro economic point of view. This argument however occupies in a dominant international management position. Chinese government is experiencing a rapid economic growth, a new exchange rate system is held on call for new adaptive model.

This paper occupies with the argument of whether Chinese government will adopt the new flexible exchange rate system in near futures. This issue departs from the recent Chinese development with adaptive policy adjustment implemented by the Chinese government, that gave a step at advance for the purpose of new flexible exchange rate system.

What the paper mainly argues is the respective weight attributed to flexibility and stability of one exchange rate policy. To be a main type of international currency reserve, the RMB still lacks automatically self-regulatory function. In balancing both stability and flexibility in the monetary policy, Chinese government will probably continue the mechanism of discounting its currency flexibility, in order to compensate for the currency stability.

A provocative environment will also tighten a nation's eventual economic policy adjustment. The external unpredictability however will mitigate its prospective in the future. From recent studies, a total flexible RMB exchange rate system is unlikely to be implemented, this attitude can be observed in Chinese political behaviour in balancing both flexibility and stability of its domestic currency.

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