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Research Report

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RMB Internationalization Report 2016

Currency Internationalization and Macro Risk Management

Press Release

International Monetary Institute, Renmin University of China

24th, July, 2016

Contents

※ This is an excerpt from RMB Internationalization Report 2016, prepared for the Press Conference of RMB Internationalization Report 2016. For the full report, please refer to the RMB Internationalization Report 2016 published by Renmin University of China in July, 2016.

1. Introduction

Introduction

2015 was an eventful year. After the Federal Reserve decided to raise interest rates, the US Dollar Index continuously rose, US dollar-denominated assets were chased after and international capital flow experienced profound adjustments. All these have exacerbated gravely the pressure of capital outflow in China. Recovery in Europe were hindered by the refugee crisis and faced further uncertainties with the possibility of Brexit. The ECB has adopted negative interest rates. As the EU is China's largest trading partner, the substantial depreciation of the euro hit China's export greatly. The sluggish international economy further burdens China's economy in its difficult transition. On one hand, problems like overcapacity decreased private investment and increased banks' non-performing assets became more prominent; on the other hand, the domestic financial market suffered turbulences. In the first half of 2015, high leverage and margin trading led to the stock market crash where more than 20 trillion RMB in share value evaporated; in the second half, exchange rate overshooting erupted because of market panic and offshore RBM liquidity contracted acutely. Confidence from home and abroad for China's growth and financial stability was undermined.

RMB internationalization has still maintained its momentum. By the end of 2015, RII, a comprehensive quantitative indicator of RMB international acceptability, reached 3.6, an increase of more than ten times during only five years. The proportion of RMB settlement in China's foreign trade approached 30%, driving the proportion of RMB settlement in global trade to nearly 3.38%. RMB outward direct investment (ODI) reached 736.2 billion yuan, an increase of 294.53% over the previous year. Meanwhile, the share of RMB in global credit, bond and note transactions increased rapidly, driving the share of RMB in international financial transactions to 5.9%. The balance of currency swap agreements signed by the PBOC has reached 3.31 trillion yuan.

On 30th, November, 2015, the IMF announced to include RMB into the SDR basket (RMB's share being set at 10.92%) and the decision will come into force on 1st, October, 2016. The inclusion is a milestone in integrating China's economy into the global financial system and a win-win result for both China and the world. Although RMB is officially recognized as a "freely usable currency", the recognition may not inevitably lead to the "market status" of RMB as an international currency. The inclusion of RMB in the SDR basket does not mean the completion of RMB internationalization. To realize the ultimate goal of matching the status of RMB with China's economic and trade power, there's still a long way to go. Whether RMB can become a major international currency still depends on RMB usage and RMB reserve in the international market.

Generally speaking, issuing countries for major international currencies should meet the following conditions: strong economic power, prominent trading status, currency stability, free capital flow and competence in macro management. Seeing from the experiences of the past few years, China has achieved a lot concerning the five aspects but in the long run, macro management may become a deficiency. As macro management will influence other aspects including currency stability and capital flow, we should prioritize enhancing macro-management so as to win the confidence of the international community for RMB's long term prospect.

The RMB Internationalization Report 2016 themes on "currency internationalization and macro risk management", focusing on macro management and discussing adjustments of macro financial policies at the new stage of RMB internationalization and possible macro financial risks in the internationalization process. The report points out that we should establish a macro-prudential policy framework based on China's national strategies and guard against systemic financial crises so as to lay a solid foundation for the steady growth of the real economy and the ultimate completion of RMB internationalization.

According to classical theories of international finance, monetary authorities of an open economy can only achieve two of the following three policy objectives: monetary policy independence, fixed exchange rate and free capital movement. As shown in the experiences of German and Japan, during currency internationalization, monetary authorities inevitably face profound changes in the cross-border capital flow and exchange rate regime and have to adjust their policy objectives accordingly. Germany and Japan were at similar starting points but chose different paths of policy adjustment, which exerted different influence on the domestic economy and finance of the two countries. Therefore, the result of currency internationalization in Germany and Japan differ dramatically.

At the initial stage, Germany regarded exchange rate stability as its top priority. To maintain this stability, Germany even reintroduced capital control, suspended the expansion of the financial market and used its foreign reserves to intervene in the market. These measures have created favourable conditions for Germany to maintain foreign trade advantages, improve the competitiveness of industrial production and boost real economy growth. Such measures have also offered staunch support for a stable Deutsche Mark over the long term. However, Japan took a radical approach and over-estimated its real economy's resistance to yen's appreciation. Therefore, Japan failed to maintain exchange rate stability. In addition, misguided macro-economic policies greatly damaged Japan's real economy. As a result, Japanese yen internationalization was only in blossom for a while but soon withered.

In recent years, RMB internationalization has progressed steadily and may enter a new stage after RMB's inclusion into the SDR currency basket. Against this backdrop, we are now at a critical period for policy adjustment. Germany and Japan have adopted different measures in policy adjustment and achieved different results: this offers us invaluable experience to draw upon. We must be patient in policy adjustment and can only liberalize the exchange rate and capital account when the real economy, the financial market and relevant authorities are fully prepared. Therefore, as we are changing the current macro policy mix of "independent monetary policy, managed floating exchange rate and limited capital flow" into one of "independent monetary policy, floating exchange rate and free capital flow", we have to tackle exchange rate fluctuations' impact on domestic economy and finance. We also need to adapt as soon as possible to the new mechanism where cross-border capital flow influences domestic financial markets, financial institutions and the real economy. In particular, we need to prioritize preventing and managing systemic financial risks.

This report has discussed the above mentioned issues which have drawn close attention from the market and exerted substantial influence on RMB internationalization. Based on studies of historical facts, literatures, theories, empirical evidences and policies, the report maintains that to secure the ultimate completion of RMB internationalization, we should establish a macro-prudential policy framework to offer institutional support, step up our effort to manage macro financial risks with exchange rate management as the focus and capital flow management as the key entry point and vigorously prevent and resolve systemic financial risks.

Specifically, we conclude and suggest the following:

First, on RMB exchange rate and its management. The determinants of RMB exchange rate have changed a lot. The fundamentals determine long term rate while cross border capital flow and spill-over of other nations' policies cause short term fluctuations. However, arbitrages bring the rate back to the long term equilibrium. With more flexibility, exchange rate volatilities now exert a substantially increased influence on economic stability.

We should further liberalize the exchange rate and improve the RMB exchange rate system, transforming from a managed float regime to a floating regime. We should mainly adopt indirect intervention instead of direct intervention in realizing the objectives of exchange rate policies. We should step up expectation management to maintain long term stability at the equilibrium rate. We also need to heed policy spill-over and strengthen policy communication and coordination between nations so as to pursue the objectives of exchange rate policies that are in keeping with the optimal monetary policies.

Second, on the relationship between cross border capital flow and the robustness

of domestic financial markets and institutions and the real economy. We should liberalize the capital account in coordination with the reform of the exchange rate regime and take a “gradual, controllable and balanced approach”. In this process, we should heed the needs for domestic economic and financial development and adapt to the changes in the global economy.

According to relevant studies, previously China enjoy continuous net capital inflow, driving the price and leverage ratio in the capital market; after the RMB depreciation on 11th August, 2015, the price, leverage ratio and cross border capital flow exert circular influence on each other and short term capital flow (both inward and outward) can impact the price and leverage ratio of the domestic capital market. The price co-movement among domestic financial markets and between the domestic and foreign market becomes more evident; so does the transmission of financial risks. Therefore, the market is even more sensitive to the impact of cross boarder capital flow. We should not be so anxious in opening up the capital account. Instead, we should better monitor cross border capital flow and obtain comprehensive information.

In capital account liberalization, Chinese banks can gain more space for development on the international arena; however, they also have to face domestic and international risks. It is more difficult to find the balance between market expansion and risk control. Systemically important banks should seize the opportunity to expand their international business; meanwhile, they should also improve risk management mechanisms to avoid becoming the magnifier of external shocks or the trigger of systemic risks.

The more complicated and frequent capital flow has exacerbated the volatility of the real economy. We should clarify the focus of the supply side reform and utilize both domestic and international resources to promote technological development. We should insist that the financial sector should support the real economy and should avoid economic bubbles and excessive reliance on the financial sector. Currently, the development model needs adjustment; the ability of innovation is weak; international trade boasts volume but not quality; private investment is shrinking. All these problems should be properly solved so as to reduce the risks for the real economy. In terms of direct investment, technological advancement and international trade, RMB internationalization and the supply side reform can form a synergy which turns the risks into opportunities; they can jointly promote the structural adjustment and transition of China’s economy.

Third, on the management of macro financial risks during RMB internationalization. Financial stability is the prerequisite for the completion of RMB internationalization. Therefore, in macro financial management, the core task of monetary authorities is to establish a macro-prudential policy framework that is more comprehensive and targeted.

External risks like cross border capital flow and internal risks of domestic financial markets, financial institutions and the real economy are intertwined and closely linked. As a result, the possibility is ever increasing that risks in a single market or sector can cause chain reactions and lead to systemic risks. We need to draw up China’s index for systemic risks to better evaluate and monitor systemic risks. We should establish a macro-prudential policy framework that is in keeping with China’s actual conditions, thus offering institutional arrangements to prevent and manage systemic risks.

Currently, multiple authorities are bearing regulatory responsibilities; such responsibilities are not clear-cut and can be overlapping; rules and regulations issued by different authorities are inconsistent. To tackle these problems, we should draw upon international practices and clarify the principles of the current reform of financial regulation. We should establish a macro-prudential policy framework that is in keeping with China’s actual conditions. By so doing, we offer institutional arrangements for stepping up the management of systemic risks. Specifically, we should incorporate “macro-prudential regulation” into the current financial regulation framework and determine the competent department to adopt macro-prudential policies. Apart from maintaining currency stability, the central bank should bear more responsibilities including securing financial stability and enhancing financial supervision. We should discern monetary policy, macro-prudential policy, micro-prudential policy and behaviour regulation as they have different functions and implementing mechanisms; we should also enhance the coordination between the four aspects. We should improve the accessibility and accuracy of financial data so as to offer timely and comprehensive information for monitoring, analysing and evaluating systemic risks. Meanwhile, we should establish an effective mechanism of crisis intervention and step up the protection of financial consumers.

RMB internationalization bears the responsibility of both realizing China’s interests and reforming the international monetary system; it is an important plan put forward by China as an emerging major country of the 21th century. To support RMB internationalization, we should bear in mind our national strategy, better manage macro financial risks and improve the competence of monetary authorities in macro management.

It is a dynamic process for the international currency system to feature multiple major international currencies; changes in international trade pattern and turbulences in the global financial market may both contribute to adjustments in the international currency system. The more complicated the international finance becomes, the more we need to be calm and resolute in adjusting our policies and managing macro risks. We must keep the bottom line that no systemic financial crisis happens. Steady progress in RMB internationalization is the best response to any doubts.

2. RMB Internationalization Index

2.1 RMB Internationalization Index and Comparison of Major Currencies

When compiling the RMB Internationalization Index (RII), we base our calculation on the theoretical analysis of currency's functions as a measure of value, a medium of exchange and a store of value and take into account the share of RMB in the denomination of international trade and international finance and in the official foreign reserves. RII ranges from 0 to 100. If RMB were to be the world's only international currency, all RII indicators would be at 100% and the index would be at 100; if RMB is not at all internationalized, the index would be at 0. The rise of the index means that RMB is increasingly internationalized and takes more of an international currency's functions. By end 2015, RII has reached 3.60, a year-on-year increase of 42.9% and an increase of more than 10 times over the past five years (Figure 1).

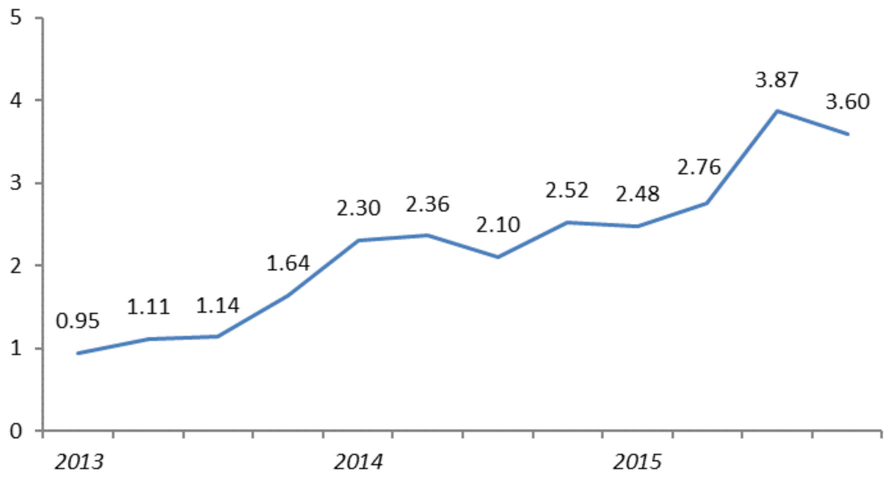

Figure 1 RMB Internationalization Index (RII)

Note: RII has made the following adjustments: (1) Due to the rapid development of offshore markets in recent years, statistics concerning RMB assets becomes more complete. The RII indicator of international credit incorporates not only previous statistics from the mainland and Hong Kong but also information of relevant markets such as Macau (China), Taiwan (China), Singapore and London (Britain). (2) In 2015, China started to adopt BPM6 in calculating its international balance of payments. Therefore, RII indicator of direct investment now refer to BPM6 instead of BPM5. (3) RII is adjusted due to raw data adjustments.

Seen from the description above, changes in global trade and financial denomination and in the share of RMB in official foreign exchange reserves will all influence RII results. At the initial stage of RMB internationalization, the increased use of RMB in international trade denomination drove the RII up. As the internationalization progresses, the increased use of RMB denomination in both international trade and international finance jointly drive up the index. In 2015, the use of RMB in direct investment and overseas loans increased substantially, becoming the most important factor in keeping the rapid rise of RII. Meanwhile, the proportion of RMB assets in other countries' official reserves continuously increase. According to the IMF, RMB now takes up 1.1% of official foreign exchange reserves. On 30th, November 2015, the IMF announced to include RMB into the SDR currency basket (RMB's share being set at 10.92%) and the decision will come into force on 1st, October 2016. This is an important milestone in integrating China's economy into the world financial system and a win-win result for both China and the world. RII has kept a rising trend despite occasional fluctuations. Globally, although the overall internationalization index of major international currencies (US dollar, euro, British pound Japanese yen) registered a year-on-year growth of 5%, the performance for respective international currencies remained divergent (Table 1). In the US, the recovery remained strong and the Federal Reserve started to raise the interest rate. The ensuing strong performance of US dollar drove the dollar internationalization index up from 54.17 of the previous year to 54.97 of 2015. The status of US dollar as an international currency experienced a rebound. In the euro zone, the recovery was mild while the performance of member states remained divergent. Difficulties in Greece and the refugee crisis posed daunting challenges for the prospect of the Europe. The euro continued to depreciate, harming the world's confidence in the currency. The euro index dropped from 24.69 of the previous year to 23.71 of 2015. Euro was less used in the world. In Japan, weak global economy and insufficient demand led to weak economic performance. However, Japanese yen were increasingly regarded as a safe haven currency. The yen index stabilized at 4.29. In Britain, the economic performance surpassed expectations and trade and investment increased rapidly. However, as the Brexit referendum approached, the political and economic prospect became increasingly unclear, driving the pound low. The pound index dropped from 4.79 at the beginning of 2015 to 4.53.

Table 1 Internationalization Index of Major International Currencies

	2014Q1	2014Q2	2014Q3	2014Q4	2015Q1	2015Q2	2015Q3	2015Q4
Dollar	53.58	53.47	54.78	54.17	55.66	55.91	54.56	54.97
Euro	26.57	25.00	24.30	24.69	24.09	22.39	24.68	23.71
Yen	4.44	4.40	4.11	4.33	4.12	4.08	4.10	4.29
Pound	5.58	4.56	4.54	4.25	4.79	4.74	4.83	4.53

Total	90.17	87.44	87.74	87.44	88.66	87.12	88.17	87.49

2.2 Impetuses for RII

China's economy maintained a steady performance and the financial reform advanced in an orderly manner. In 2015, despite mounting downward pressure, China's economy was still the most stable in the world, laying a solid foundation for RMB internationalization. As a flagship in the emerging markets, China saw its GDP grow by 6.9% in 2015, an increase that led the world. China has continued its supply side reform and maintained the prudential monetary policy. China's financial system showed its resistance in risk prevention efforts. All these have provided continued driving forces for RMB internationalization. China's current account surplus reached USD 293.2 billion, a year-on-year growth of 33.5%. China's outward direct investment (ODI) registered a year-on-year growth of 14.7%. China has maintained the balance of international payments and the cross border capital outflow has returned to the level consistent with the economic fundamentals. In terms of financial reform, 2015 represented a critical period. In 2015, we removed the cap on the deposit rates of commercial banks and rural cooperative financial institutions and basically removed interest rate control. We improved the formation mechanism of RMB central parity rate and further liberalized the exchange rate regime. We effectively adjusted the market rate and offshore rate in reference to the central parity rate and onshore rate. We released RMB exchange rate index in reference to CFETS (China Foreign Exchange Trade System) basket currencies, improved PBOC's management of the foreign exchange market and fought against overseas bids to short RMB. All these efforts helped to lead the market expectation back to a reasonable level. We undertook pilot programs to facilitate innovation and then introduced successful practices all around the country, gradually promoting RMB convertibility under the current account.

We further improved policies on cross border RMB businesses under the capital account. Despite the exacerbated fluctuations in domestic and foreign financial markets and the mounting pressure of capital outflow, we still made breakthroughs in improving policies on cross border RMB use, which helped to expand RMB backflow channels, optimize the allocation of enterprises' funds and boost real economy development. In 2015, we further relaxed the control on enterprises to issue bonds in overseas markets and on the two-way cross border RMB cash pooling so as to allow enterprises more independence and offer them more assistance in overseas fundraising. We allowed overseas central banks (monetary authorities) and other official reserve management entities, international financial organizations and sovereign wealth funds to participate in China's interbank foreign exchange market according to relevant laws and regulations. These institutions can undertake foreign exchange transactions including spots, forwards, swaps and options. By opening the interbank FX market, we tried to make RMB more representative and enhance its function as an international reserve currency. The Shenzhen QDIE (Qualified Domestic Investment Enterprise) pilot program were officially launched and the Shanghai-Hong Kong Stock Connect were operating smoothly. Therefore, China’s asset allocation has become more diversified.

We have improved the RMB infrastructure and aligned supporting mechanisms with international standards. China’s financial infrastructure and supporting mechanisms have been enhanced, offering both physical and institutional support for RMB internationalization. We have established clearing banks and optimized their layout, forming an international network of RMB clearing and ensuring sufficient liquidity in offshore RMB markets. In October, 2015, China has launched the first phase of the RMB Cross-border Interbank Payment System (CIPS) which offered clearing and settlement service to domestic and foreign financial institutions in their cross-border and offshore RMB businesses. The system covered all major financial centres apart from the US and represented a major step forward in the development of RMB payment system. Meanwhile, we have vigorously introduced international standards in terms of data collection and dissemination. We adopted IMF’s Special Data Dissemination Standard (SDDS) and participated in BIS’s International Banking Statistics (IBS) and survey on currency composition of official foreign exchange reserves. We have fully introduced the BPM6 (Balance of Payments and International Investment Position Manual, Sixth Edition). Therefore, we have improved our data collection, declaration and review and made financial and economic statistics more standardized and transparent. In addition, the index system for the financial market has become more diversified. Multiple indexes have been launched including the CFETS RMB Index, Bank of China’s CIFED Index (Credits Investment & Financing Environment. Difference), the UBS Index on International Banks’ Demand and the DBS RMB Index for Winning Enterprises (DRIVE), which offered reference to global investors in understanding and using RMB.

As the One Belt and One Road Initiative steadily progresses, the economic and financial cooperation between China and Europe is experiencing a burgeoning wave. Since the initiative was launched, China has signed agreements and memorandums of understanding with 31 countries and regions and many key projects have been implemented. All these have helped deepen regional economic and trade exchanges. The AIIB has started operation, offering a solid platform for capital market connectivity through RMB in areas along the One Belt and One Road. In 2015, the China-Australia and China-South Korea Free Trade Agreement have officially started their implementation. China has signed agreements on production capacity cooperation with 10 plus countries and on currency swap agreements with Suriname, Armenia, South Africa, Chile and Tajikistan. China has also accelerated the development of free trade zones and financial pilot zones, further enhancing RMB’s status in international payment, settlement, investment and fundraising. Sino-European financial cooperation has made a great step forward and this is especially worth noting. The EU has become China's largest trading partner, largest source of technology importation and key investment partner. In 2015, China-Europe business cooperation amounted to USD 169.2 billion. Leaders of China and European countries have maintained frequent exchanges of visit and dialogues on the economy and finance. All these have further boosted the offshore RMB markets in the Europe and deepened bilateral cooperation in terms of market access, cross border supervision, investment platform and supporting facility. RMB has also been accepted by Central European countries. The Fourth Meeting between China and leaders from Central and Eastern European (CEE) Countries held in November 2015 proposed to establish finance corporations for 16+1 capacity cooperation and explored the possibility of establishing a RMB fund in support of 16+1 cooperation. The meeting supported CEE countries to establish RMB clearing arrangements, thus offering a favourable policy environment for RMB offshore markets in CEE countries.

Against the backdrop of financial turbulences and a strong US dollar, RMB denomination has increased in commodity trade. Although international oil price remained low and petrodollar kept contracting, the RMB usage actually increased in the Middle East. In 2015, the Qatar RMB Centre was established and China signed a memorandum of understanding with the central bank of UAE. Therefore, RMB became the currency of choice in UAE's and Qatar's payments to Mainland China and Hong Kong. In 2015, the UAE's use of the RMB accounted for 74% of payments by value to the mainland and Hong Kong, an increase of 52% compared to 2014. In Qatar, the RMB was used for 60% of such payments, a huge rise of 247% compared to 2014. Serbia has initiated RMB settlement programs. In Russia, RMB has been increasingly accepted and become the most welcomed currency only next to the US dollar and euro. Moscow Exchange has also launched RMB-Rubble futures trading. London Metal Exchange has accepted RMB as collateral. In July, an international market for commodities' spot trading was launched at China (Shanghai) Pilot Free Trade Zone. As a result, RMB-denominated commodities took a substantially enhanced position in global trading.

3. Current Situation of RMB Internationalization

3.1 RMB Settlement of Cross Border Trade

RMB settlement has increased in volume and seen its proportion fluctuate. In 2015, RMB settlement of cross border trade has continued to increase in volume. The whole year aggregate reached RMB 7.23 trillion, a year-on-year growth of 10.38%. (Figure 2). RMB settlement accounts for 29.36% of China's foreign trade, an increase of 4.6% over 2014. The share of RMB settlement of cross border trade in the world's total increased from 3.04% of Q4 2014 to 3.38% of Q4 2015.

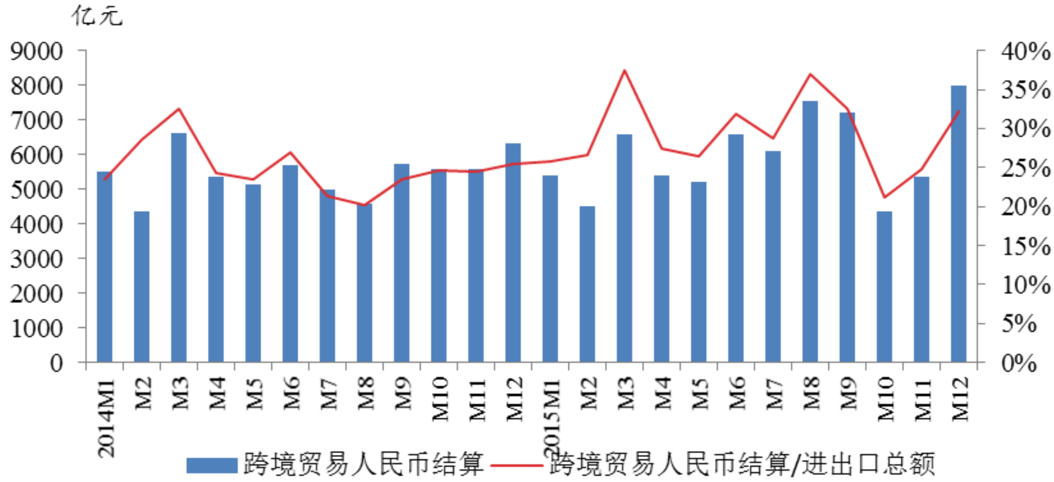

Figure 2: Volume of RMB Settlement of Cross Border Trade

Source: People's Bank of China, Ministry of Commerce

(Unit: RMB 100 million. Blue for RMB settlement of cross border trade and red for the share of RMB settlement of cross border trade in foreign trade)

RMB settlement of trade in goods took the dominant position while RMB settlement of trade in services witnessed small-scale growth. In 2015, the accumulated RMB settlement of cross border trade in goods reached RMB 6.39 trillion, accounting for 88.34% of RMB settlement of cross border trade. The accumulated amount of RMB settlement of trade in services and other items under the current account reached RMB 843.2 billion, accounting for 11.66% of RMB settlement of cross border trade. Against the backdrop of global economic sluggishness, China's foreign trade dropped dramatically in October and November 2015, dragging down the settlement of cross border trade. As the drop of trade in goods far exceeded the drop of trade in services, the proportion of RMB settlement of trade in services increased on a small-scale (Figure3, 4).

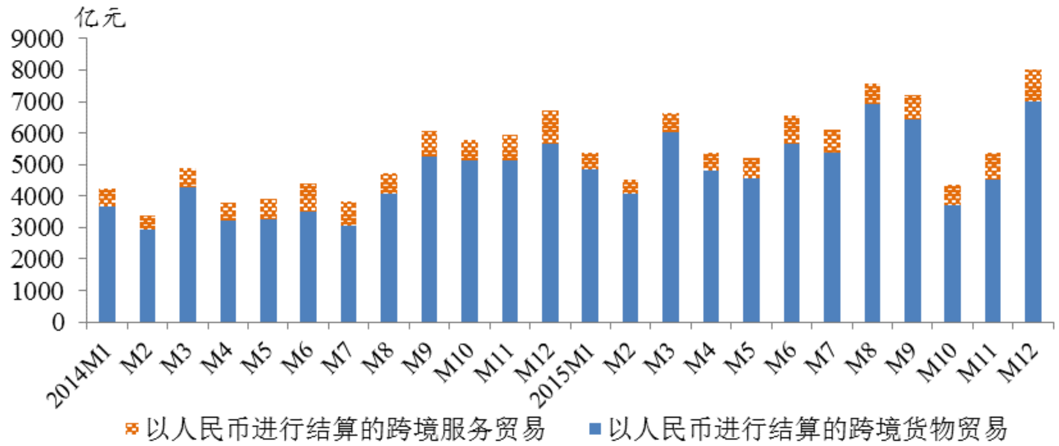

Figure 3 Cross border trade in goods and services settled in RMB

Source: People's Bank of China, Ministry of Commerce

(Unit: RMB 100 million. Blue for cross border trade in services settled in RMB, orange for cross border trade in goods settled in RMB)

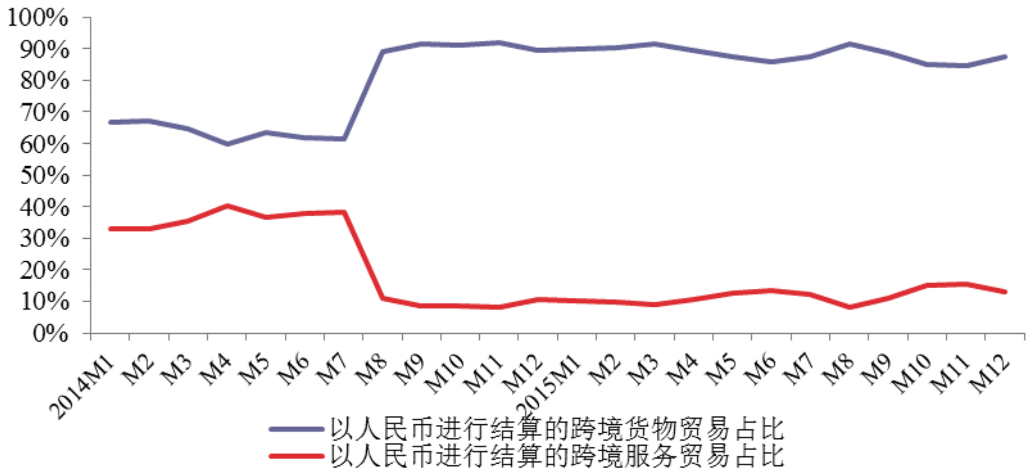

Figure 4: Share of trade in goods and services settled in RMB

Source: People's Bank of China, Ministry of Commerce

(Blue for the share of trade in goods settled in RMB, red for the share of trade in services settled in RMB)

The balance between receipt and payment first reversed and RMB settlement of exports surged. By the end of 2015, the actual receipt of cross border RMB settlement reached RMB 6.19 trillion, a year-on-year growth of 126.74%; the actual payment reached RMB 5.91 trillion, a year-on-year growth of 54.71%. The receipt/payment ratio dropped substantially from 1:1.40 in 2014 to 1:0.96 in 2015. For the first time since the initiation of RMB internationalization, the actual payment of cross border RMB settlement exceeded the actual receipt, which showed a decrease of arbitrage capital inflow. RMB receipt and payment has become more balanced (Figure 5).

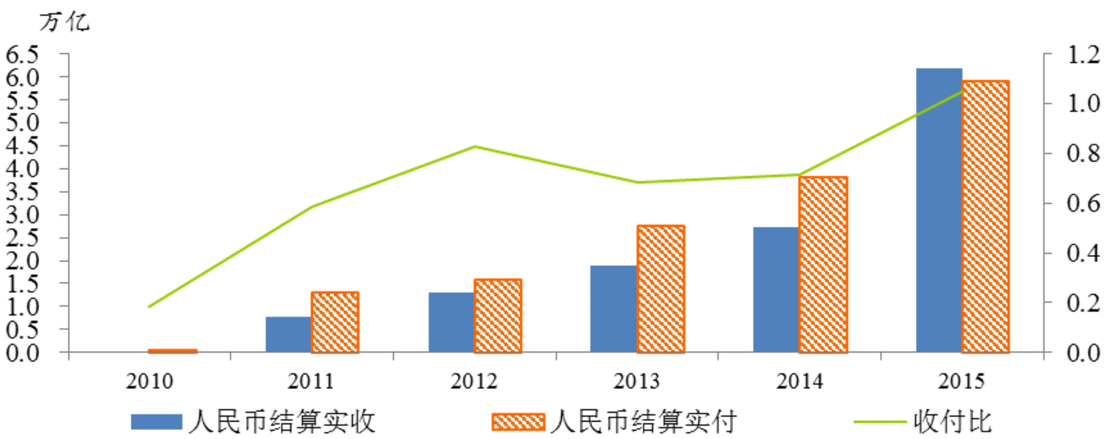

Figure 5: Receipt/Payment ratio of RMB settlement in cross border trade

Source: People's Bank of China

(Unit: RMB 100 million. Blue for actual receipt in RMB settlement, orange for actual payment in RMB settlement and green for receipt/payment ratio)

3.2 RMB-denominated Financial Transactions

In 2015, RMB's usage in international financial denomination and settlement has been greatly expanded. RMB has been more widely used in international credit, direct investment and transactions of bonds and notes and this expansion has been substantial. By end 2015, the comprehensive indicator of RMB usage in international financial denomination and settlement as defined by the above mentioned three aspects reached 5.9%, a year-on-year growth of 107.3% (Figure 6).

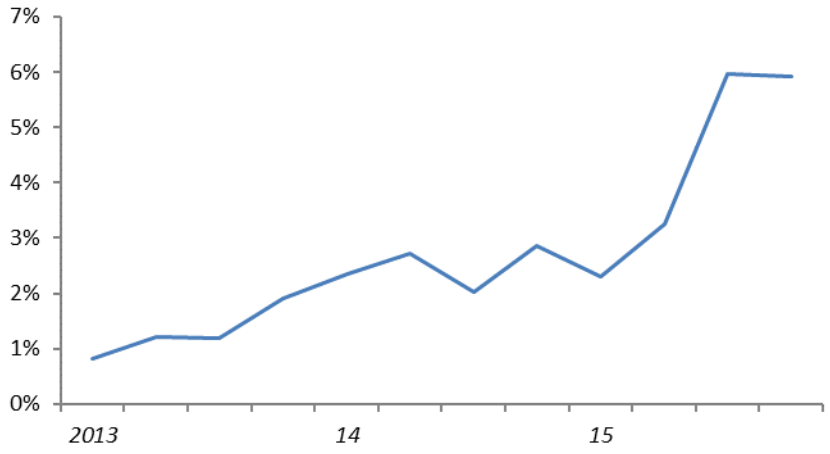

Figure 6: the comprehensive indicator of RMB usage in international financial denomination and settlement[1]

3.2.1 RMB Direct Investment

ODI (Overseas Direct Investment) settled in RMB

China's total ODI and ODI settled in RMB have both increased substantially. According to the Ministry of Commerce, China's domestic investors have invested directly in 6532 overseas enterprises in 155 countries and regions, achieving a non-financial direct investment of RMB 735.08 billion and a year-on-year growth of 16.3%. The ODI settled in RMB reached RMB 736.2 billion, an increase of 294.53% over the previous year (Figure 7). In August 2015, China reformed the formation mechanism for RMB central parity rate. Under this reform, multiple enterprises accelerated their effort to allocate their assets on a global scale. Therefore, the volume and proportion of ODI settled in RMB showed an inverted V-shape trend. Particularly in August and September, RMB ODI surged from RMB 85.1 billion to RMB 207.8 billion, hitting the peak since RMB internationalization was initiated.

[1] The comprehensive indicator incorporates RMB's share in international credit, in the issuance of international bonds and commercial papers and in international direct investment

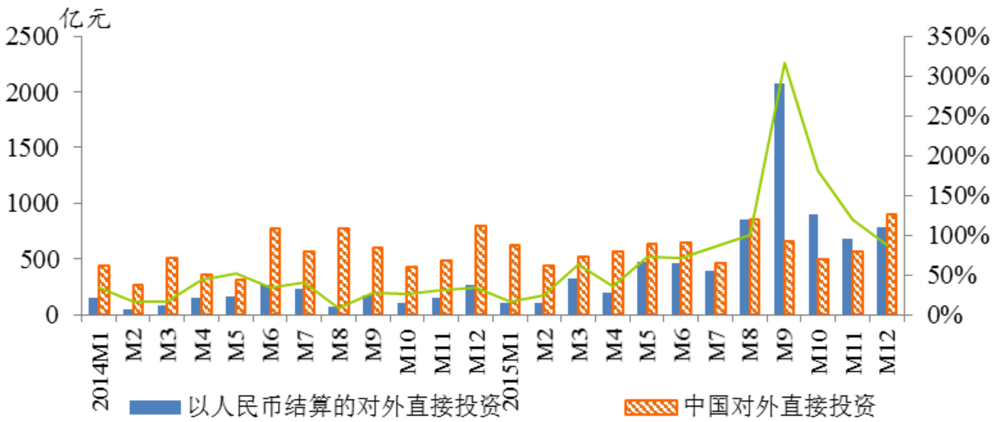

Figure 7: the share of ODI settled in RMB in China's total ODI

Source: People's Bank of China, Ministry of Commerce

(Unit: RMB 100 million. Blue for ODI settled in RMB and orange for China's total ODI)

Foreign Direct Investment (FDI) settled in RMB

In 2015, China actually used USD 126.25 billion of FDI among which the FDI settled in RMB increased substantially. The FDI settled in RMB has accumulated to RMB 1587.1 billion, an increase of RMB 725.1 billion and of 84.12% over 2014 (Figure 8). As China reformed the formation mechanism of RMB exchange rate in August, foreign investors turned to RMB settlement in making FDI so as to avoid exchange rate risks. Therefore, the FDI settled in RMB peaked in September.

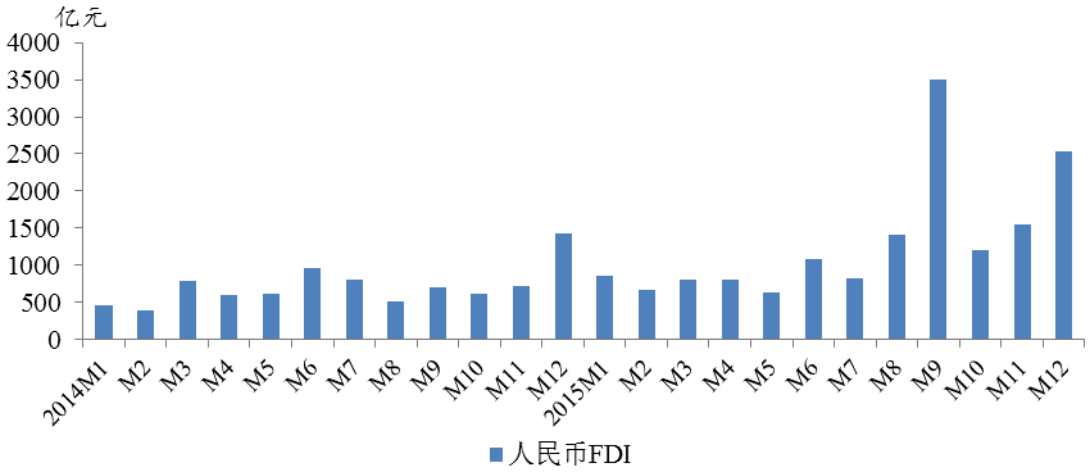

Figure 8: RMB settlement

Source: People's Bank of China, Ministry of Commerce

(Unit: RMB 100 million. Blue for RMB FDI)

3.2.2 RMB Securities Investment

International markets of bonds and notes

As RMB became more internationalized and China's capital market became more liberalized, the Panda bond market saw its first peak of issuance in its ten years' history. In 2015, 6 domestic and foreign financial institutions issued Panda bonds in China's interbank bond market. The aggregate issuance reached a record high of RMB 15.5 billion. The stock of international bonds and notes in RMB increased steadily. According to BIS, the stock reached USD 124.792 billion, an increase of USD 29.409 billion over end 2014 and a year-on-year growth of 30.8%. The share of RMB stock in the overall stock of international bonds and notes reached 0.59% (Figure 9). In international bond and note markets, RMB still lagged far behind major international currencies. By end 2015, US dollar accounted for 43.73% of the overall stock of international bonds and notes; the euro, 38.48%; British pound, 9.55%; and Japanese yen, 1.91%.

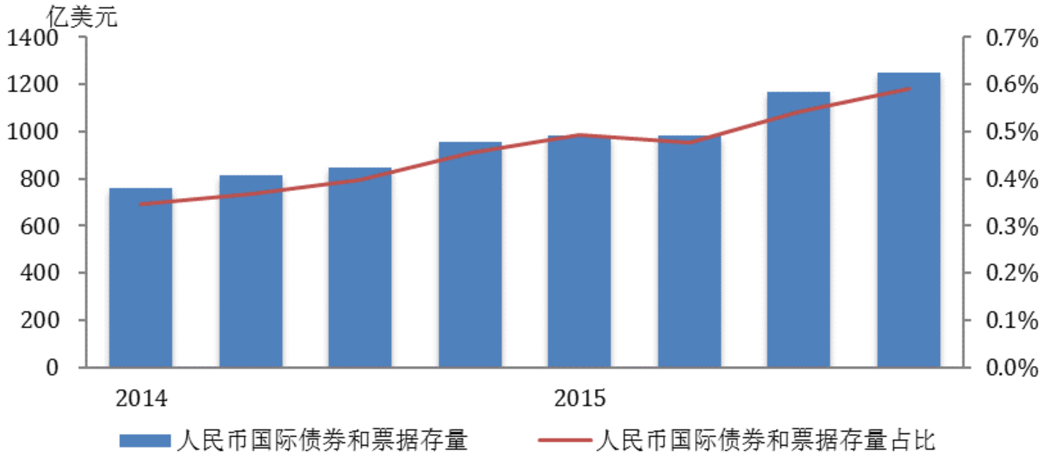

Figure 9: the stock of international bonds and notes in RMB and its share in the overall stock

Source: IBS

(Unit: USD 100 million. Blue for the stock of RMB international bonds and notes and red for its share in the overall stock)

Offshore markets are the major place for the issuance of RMB international bonds. In 2015, multiple international financial centers started offshore RMB businesses and the deposit volume of offshore RMB expanded rapidly. All these have laid favorable conditions for the issuance of RMB international bonds. In addition to Hong Kong, RMB offshore markets including Singapore, London, Taiwan, Seoul, Frankfurt and Luxembourg have expanded substantially, market players and investment products becoming more diversified. However, Hong Kong remained the largest RMB offshore market. In 2015, the stock of RMB bonds in Hong Kong increased from RMB 386.087 billion at the end of 2014 to RMB 397.116 billion, an increase of 2.85%. The stock of RMB financial institutions bonds witnessed the most obvious increase from RMB 111.227 billion of 2014 to RMB 120.324 billion in 2015. Financial institution bonds' market share also increased by 5 percentage points (Table 2)

Table 2 the scale and structure of RMB bonds in Hong Kong in 2015

Category	Stock (RMB 100 million)	Share %	Bonds number	Share %
Corporate Bond	1,761.22	44.35	154.0000	43.87
Government Bond	934.00	23.52	37.0000	10.54
Financial Institution Bond	1,203.24	30.30	152.0000	43.30
Convertible Bond	72.70	1.83	8.0000	2.28
Total	3,971.16	100.00	351.0000	100.00

Source: WIND Information

Stock Market

China's financial structure has been adjusted in line with the overall structural adjustment. Indirect fundraising has been gradually transformed to direct fundraising and fundraising in the capital market has been enhanced. At the end of 2015, the aggregate market capitalization of A shares and B shares totaled RMB 53.1 trillion. The circulation value totaled RMB 41.8 trillion, an increase of RMB 10.2 trillion and of 32.41% compared to the end of 2014. Trading in China's stock markets was burgeoning due to higher stock prices and the turnover continuously set new records. In 2015, the accumulated turnover in Shanghai and Shenzhen stock markets reached RMB 255.1 trillion, an increase of RMB 180.7 trillion and of 242.85% over 2014. Average daily turnover reached RMB 1045.303 billion, a year-on-year growth of 244.26% (Figure 10),

In 2005, China's stock market saw large-scale, irrational fluctuations. Margin trading and securities lending led to high leverage and wide-spread optimism drove the stock market up. On 12th, June 2015, the SSE Composite Index hit 5178.19 point, the highest point of the year. After the CSRC regulated OTC margin trading and securities lending, China's stock market plunged. On 26th, August 2015, the SSE Composite Index hit 2850.71 point, the bottom of the year. Within only two months, the index dropped 44.9% and the turnover contracted substantially.

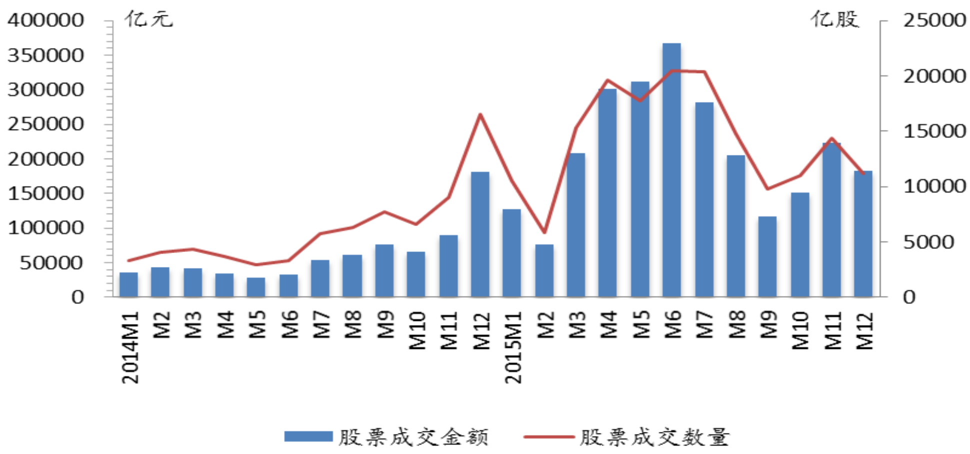

Figure 10: Transactions in China's stock market

Source: China Securities Regulatory Commission

(Unit：RMB 100 million/ 100 million shares. Blue for the turnover volume and red for the quantity of transactions)

Capital market and direct fundraising played a more important role in corporate financing. In 2015, among the 224 newly-listed companies, 90 were listed in SSE major board, 45 in CZSE (Shenzhen Stock Exchange) SME board, and 86 in HKEx Growth Enterprise Market (GEM). Newly listed companies raised RMB 176.691 billion in the stock market. Private placement of existing listed companies also increased greatly and reached RMB 670.948 billion, an increase of 66.43% over 2014 (Table 3).

Table 3: Fundraising in China's stock market

Year	Initial Offering			Subsequent offering					
				A shares				B shares	H shares
	A shares	B shares	H shares	Public offering	Private placement	Allotment	Exercise of warrants		
2013	0	0	113.17	80.42	2246.59	475.75	0	0	59.51
2014	668.89	0	128.72	18.26	4031.3	137.98	0	0	212.90
2015	1766.91	0	236.19	0	6709.48	42.33	0	0	227.12

Source: China Securities Regulatory Commission

Derivatives Market

By Q4 2015, the outstanding balance on the international OTC market of interest rate derivatives reached USD 384 trillion among which derivatives in US dollar, euro, Japanese yen and British pound accounted for 36.19%, 30.69%, 10.05% and 9.93% respectively and in other currencies combined accounted for around 10%. China's derivative market with its small scale lagged far behind developed countries'. Therefore, the BIS has not yet accounted RMB derivatives separately.

To satisfy the market's need to avoid RMB exchange rate and interest rate risks, innovative derivatives in RMB offshore markets abound. On 17th, March, 2015, Moscow Exchange launched RMB-Rubble futures trading. On 20th, July, Taiwan Futures Exchange launched two RMB FX futures, the USD/CNT FX futures and the USD/CNH FX futures with contract sizes of USD 20,000 and USD 100,000 respectively. Currently two RMB derivatives are traded in Hong Kong, the USD/CNH Futures and CES China 120 Index Futures. In 2015, the former's turnover reached 262433 hands, an increase of 67384 hands and of 34.55% over 2014; the latter' reached 27427 hands with a consecutive decrease for each season (Table 4).

Table 4 Transactions of USD/CNH Futures and CES China 120 Index Futures *Unit: hand*

	2014				2015			
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
USD/CNH Futures	75498	33359	42843	53349	58303	34390	86580	83160
CES China 120 Index Futures	9824	8678	10935	10756	14375	9403	3363	286

Source: HKEx

In 2015, the asset market saw a burgeoning performance of RMB interest rate swaps and an ever increasing market enthusiasm. The trading volume of RMB interest rate swaps reached RMB 8.22 trillion, an increase of RMB 4.18 trillion and of 104% over 2014 (Table 5).

Table 5 Interest rate swap on interbank markets *Unit: RMB 100 million*

	2014				2015			
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
Interest rate swap	8044.5	8908.53	9577.68	13786.59	16597.79	19319.37	22519.47	23721.98

Source: China Foreign Exchange Trading Center

In 2015, the turnover of CSI 300 Index futures increased rapidly, reaching RMB 439.67 trillion, an increase of RMB 276.54 trillion and of 170% over 2014. The positive correlation between the CSI 300 Index futures and their turnover remained strong, which showed that such futures played a positive role in hedging against risks. Government bonds were the major choice for overseas institutional investors. In 2015, the turnover of government bond futures reached RMB 4.36 trillion, an increase of 396% over the previous year (Table 6).

Table 6: 2014-2015 transactions in stock index and government bond futures Unit: RMB 100 million

	2014				2015			
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
CSI 300 Stock Index futures	272821	275356	348607	734601	882766	1546583	977621	989717
Government bond futures	1083.95	1078.99	1322.63	5299.58	6778.97	7167.55	4334.30	25314.17

Source: China Financial Futures Exchange

RMB Financial Assets with Foreign Investments

As China's financial market becomes increasingly open, non-resident investors are more enthusiastic to invest in China's stocks and bonds, leading to an ever growing investment scale. Currently, non-resident investors can invest in RMB stocks through three channels: QFII (Qualified Foreign Institutional Investor program), RQFII (RMB Qualified Foreign Institutional Investor program) and the Shanghai-Hong Kong Stock Connect. QFII and RQFII are reserved for institutional investors and the Stock Connect are open to individual investors.

In 2015, the QFII and RQFII program grew rapidly. 20 new QFIIs were registered, an increase of 7.27% over 2014. Total QFIIs reached 295 institutions. 68 new RQFIIs were registered, an increase of 57.63% over 2014. Total RQFIIs reached 186 institutions.

By the end of 2015, 40 QFIIs, 131 RQFIIs, 84 overseas banks and 16 overseas insurance companies have been granted access to China's interbank bond markets. In 2015, spot transactions in China's interbank bond markets participated in by foreign institutions reached 177625 hands, with a total volume of RMB 15931.655 billion (Figure 11).

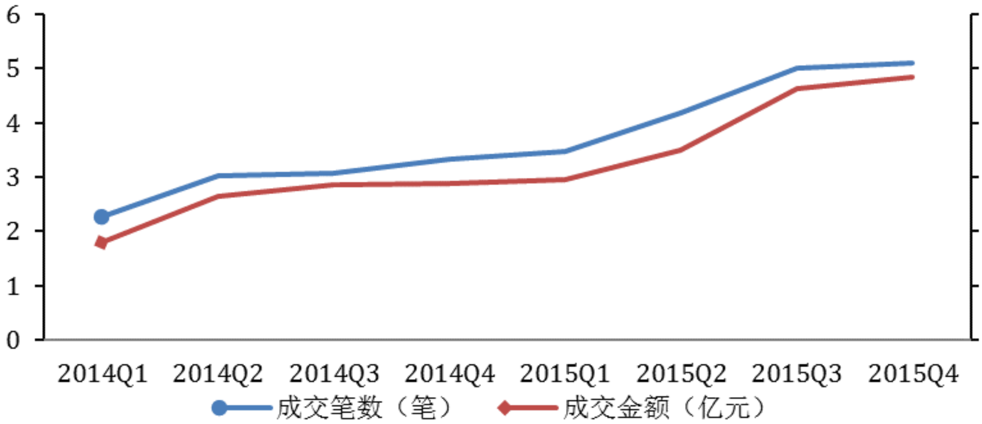

Figure 11: Spot transactions participated in by foreign institutions in the interbank bond market

Source: China Foreign Exchange Trade Center

(Blue for the quantity of transactions and red for the value of transactions)

Due to the 2015 stock market turbulence and the expectation of RMB depreciation, non-resident investments in China's stock market dropped sharply and resident investments in overseas markets surged. According to HKEx statistics on the Shanghai-Hong Kong Stock Connect, in December, 2015, the Northbound turnover was RMB 62.527 billion, a decrease of 46% over December, 2014 while the Southbound turnover was HKD 45.235 billion, an increase of 145% over December 2014.

Generally speaking, RMB assets became increasingly attractive to international investors. Domestic stocks, bonds and loans held by overseas institutional and individual investors all increased (Table 7).

Table 7 RMB assets held by overseas institutional and individual investors *Unit: RMB 100 million*

Category	2014Q1	2014Q2	2014Q3	2014Q4	2015Q1	2015Q2	2015Q3	2015Q4
Stock	9790.76	10426.99	13332.98	15313.38	20121.46	24325.43	16782.28	16513.76
Bond	14003.20	16295.90	17979.59	19600.92	21345.98	22478.36	23402.83	22718.63
Loan	21299.51	24945.63	26129.73	24900.87	26174.44	26899.73	28661.28	26942.65
Deposit	55576.06	60215.43	65126.38	70538.32	63386.11	63844.34	54574.54	46635.06

Note: the stock value balance was adjusted as the stock value balance of non-residents' Northbound holdings was included

3.2.3 RMB Overseas Credit Market

By the end of 2015, the balance of RMB overseas loans for domestic financial institutions reached RMB 315.347 billion, a year-on-year growth of 58.49%. The share of RMB overseas loans in financial institutions' total loans reached 0.34%, a rapid growth over end 2014 (Figure 12). Due to the low interest rate for overseas RMB and the expectation of RMB depreciation, enterprises now demand more overseas RMB loans to reduce financing cost. Enterprises in pilot areas including Tianjin, Guangxi and Yunnan had already been granted access to cross border RMB loans in Southeast Asia and other RMB offshore markets. In 2015, the PBOC also authorized the Nansha New Area in Guangdong and the Hengqin Sub-district in Zhuhai to start pilot programs of overseas RMB loans. Enterprises in this two areas have been allowed to borrow RMB fund from banks in Hong Kong and Macau and the fund can only be used within these two authorized areas or in overseas markets. The fund should be used in line with macro-control policies and industrial adjustment policies. All these were policy measures to further liberalize credit and an important reason for the substantial increase of RMB overseas loans in 2015.

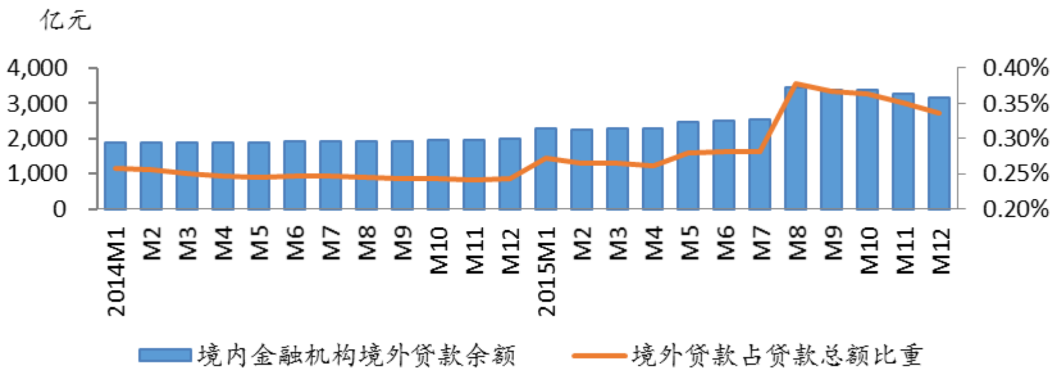

Figure 12 Balance and share of overseas RMB loans for domestic financial institutions

Source: The People's Bank of China

(Unit: RMB 100 million. Blue for the balance of overseas RMB loans and orange for the share of such loans)

3.2.4 RMB Foreign Exchange Market

In 2015, the PBOC reformed the formation mechanism for RMB central parity rate. As of 11th, August 2015, when quoting price to the China FX Trade Center, market makers should mainly refer to the previous day's closing rate at the interbank FX market; they should also make minor adjustments considering the previous day's FX changes of major international currencies and the FX supply and demand. As the exchange rate fluctuated at a wider range and the Federal Reserve was expected to raise interest rates, the market expectation of RMB exchange rate became divergent. As a result, the trading volume of RMB against different currencies differed in 2015

(Table 8). Spot RMB transactions reached RMB 4.86 trillion, a year-on-year increase of 18.23%.

Table 8 2015 trading volume of RMB against various currencies in the interbank spot FX market

Unit: RMB 100 million

Currency	USD	EUR	JPY	HKD	GBP	AUD	NZD	SGD	CAD	MYR	RUB	CHF
Trading volume	46131	678	537	278.97	1245	160	27	605	20	2	35	23
Year-on-year increase	19%	33%	-27%	-15%	-44%	-34%	-39%	345%	818%	23%	-11%	-44%

Source: WIND Data

Derivatives are attracting more and more attention in FX risk management. Among China's FX derivatives, swap takes the largest share and transactions are undertaken mainly against the US dollar. In 2015, RMB/USD swap transactions reached USD 8.34 trillion, a year-on-year growth of USD 3.88 trillion and of 86.8%. RMB/USD forwards reached USD 37.199 billion, a year-on-year decrease of USD 15.646 billion and of 29.6%. In 2015, transactions of foreign currency pairs reached USD 191.518 billion, a year-on-year increase of USD 26.762 billion and of 16.24%. Among such transactions, USD/EUR transactions enjoyed the largest volume and reached as much as USD 84.141 billion, accounting for 43.93% of transactions of foreign currency pairs (Figure 13).

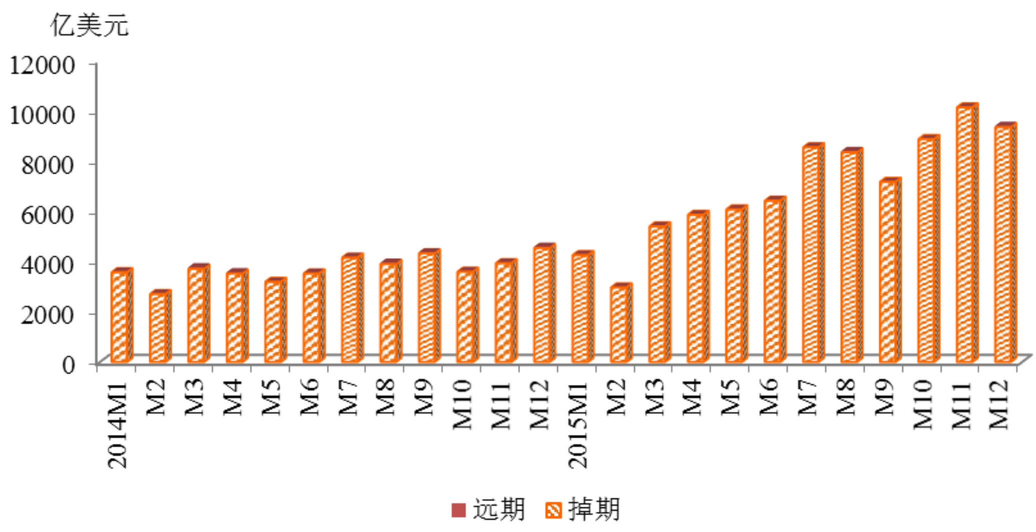

Figure13 2014-2015 RMB FX derivative market

Source: China Foreign Exchange Trade Center

(Unit: USD 100 million. Red for forwards and Orange for swaps)

3.3 RMB in Global Foreign Reserves

3.3.1 Enhancing Monetary and Financial Cooperation

By the end of 2015, the People's Bank of China has signed the bilateral local currency swap contracts with monetary authorities from 33 countries and regions, with a total amount of RMB 3.31 trillion yuan (Figure 14). Among which, it was the second time the People's Bank of China sign the agreement with Belarus, the United Arab Emirates, Turkey, Australia, Ukraine and the UK, and the third time with Malaysia. These agreements are different from those signed among developed economies in that they aim to maintain regional financial stability and promote bilateral trade and investment as well.

Besides the currency swap contracts at the central banks' level, the RMB settlement bank system has also provided guarantee for liquidity of RMB. In 2015, the People's Bank of China authorized to establish RMB settlement banks in Kuala Lumpur, Bangkok, Sydney, Qatar, Chile and South Africa to facilitate the use of RMB in local markets. On November 30th, 2015, several US financial and business leaders announced to set up an RMB trade and settlement work group for exploring the possibility of establishing an RMB trade and settlement mechanism in the US to enable US institutions to use RMB, reduce transaction cost and improve efficiency.

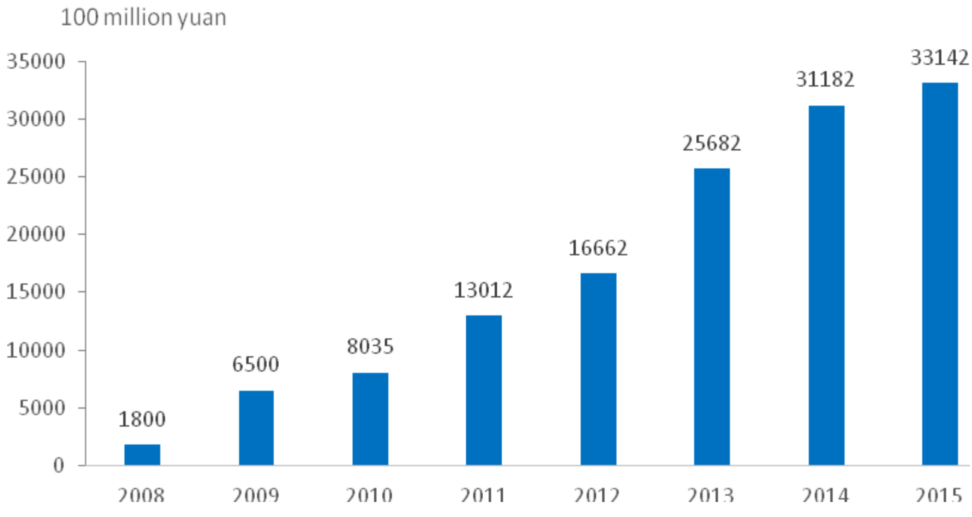

Figure 14: Amount of currency swap between PBC and other monetary authorities

Source: The People's Bank of China

3.3.2 Diversification of International Reserve Currencies

By the end of 2015, among the allocated reserves of IMF, dollar reserve was USD4.36

trillion, accounting for 64.06%; euro was USD1.35 trillion, accounting for 19.91%; pound was USD0.33 trillion, accounting for 4.88%; yen USD0.28 trillion, accounting for 4.08%; Swiss francs was USD21.034 billion, accounting for 0.31%; Canadian dollar was USD0.13 trillion, accounting for 1.88%; Australian dollar was USD0.13 trillion accounting for 1.90% (Table 3-10). Compared with 2014, the share of US dollar and that of the pound are on a sharp increase of over 1%, while the share of the euro suffers a drastic decline of over 2.3%. The shares of other currencies remain stable.

4. RMB Internationalization and Macro Financial Risk Management

4.1 RMB Internationalization Needs the Protection from Macro Financial Risk Management

The classical theories and the history of Germany and Japan prove that with the internationalization of RMB, the monetary authority will inevitably face the challenges from macro financial policy adjustment and the macro financial risks caused by it. We should use the macro-prudential policy framework as an institutional guarantee, take exchange management as the main tool for macro financial risk management and focus on the management of capital flow as the key entry point, so as to prevent and settle disruptive systemic financial crises and ensure RMB internationalization.

With the advances of RMB internationalization, issuing countries have to make a new choice among three macro financial policy goals: opening the capital account, maintaining stable exchange rates and keeping monetary policies independent. History told us that Germany and Japan chose different policy paths, which exerted rather different influences on their economic and financial operation and created a huge gap between their currency internationalization.

Germany internationalized the Deutsche Mark before it wholly opened up its capital account. During this period, Germany was almost obsessed with stable exchange rates and monetary policies, and took a prudential attitude to opening and adjusting the capital account. Such a strategy not only earned Germany a golden era to sharpen core industrial competitiveness, but also created sufficient technical means and policy tools for financial market fluctuation after the internationalization of the Deutsche Mark; it won the Deutsche Mark and Germany the position in the global financial market. Japan, on the other hand, took a more radical approach. From the 1960s on, it tried a drastic liberalization of the capital account and overestimated the capacity of its real economy against the impact of exchange rate appreciation, and thus failed to maintain the stability of the yen. The excessively rapid appreciation of the yen caused industrial transfer and hollowed out the real economy. Though Japan tries to stimulate its economy through loose monetary policies and opening up the financial market in the 1980s, it could not stop the recession of the real economy. In the end, the internationalization of the yen ended in smoke, and the development of Tokyo's financial market was dragged down.

After a currency becomes a main international currency, the monetary authority usually has to adopt a macro financial policy portfolio consisting of free capital flow, floating exchange rates and independent monetary policies. This principle also applies to China. However, liberalizing the capital account and RMB exchange rates without consideration is likely to cause systemic financial crises, which would jeopardize the development of the real economy and finance, and bring RMB internationalization to a halt. Therefore, instead of adjusting policy in a hurry, we should wait to liberalize exchange rates and the capital account after the economy, financial market and regulatory institutions of China are fully prepared for the shock of global capital.

At present, the core task of the monetary authority in macro financial management is to establish a more comprehensive and targeted macro-prudential, pursue financial stability and create all necessary conditions for RMB internationalization. On one hand, we should coordinate exchange rate policies with monetary policies and financial policies and keep prices, exchange rates and macro economic growth steady for the ultimate goal of financial stability. On the other, we need to continue to improve micro-prudential regulatory policies, attach importance to risk control and management of financial institutions, protect the rights and interests of financial consumers, explore macro-prudential regulatory policies, focus on sound operation of the financial system, strengthen synergetic development of finance and the real economy and prevent systemic financial risks to support financial stability.

4.2 Exchange Rate Management Should Be a Major Tool for Macro Financial Risk Management

For an issuing country, the first challenge it encounters in currency internationalization is exchange rate fluctuation. Excessive exchange rate fluctuation will have a negative impact on the financial market, and hinder sound growth of the real economy. At the initial stage of RMB internationalization, we should draw a lesson from Germany, and take exchange rate stability as a priority.

As the RMB exchange rate formation mechanism improves and the capital account opens, the determinants of RMB exchange rate will change markedly. International experience proves that the macro-economic fundamentals can explain long-term exchange rate changes, but have a weak influence on short-term exchange rate fluctuation. Short-term exchange rate fluctuation is mainly affected by cross-border capital flow and the spillover effects of other countries' policies, but market arbitrage can bring exchange rates to a long-term equilibrium. Exchange rate volatility has a little impact on short-term capital flow, but a big one on the stability of economic growth, especially on FDI.

As RMB continue to serve as an international currency, its exchange rate will not only influence domestic economic and financial activities, but have a considerable spillover effect on the exchange rates of neighboring countries, regional trade and investment, or even the global financial market. Therefore, it is essential to strengthen the management of RMB exchange rate expectations. On December 11th, 2015, China Foreign Exchange Trade System published the CFETS RMB Exchange Rate Index, which transforms the reference frame of RMB exchange rate from RMB's rate against the dollar to an effective rate based on a basket of currencies, and helps the market to understand and accept the new exchange rate formation mechanism.

We should further promote the market-based reform of the exchange rate market, optimize the RMB exchange rate system, enhance management of market expectations, maintain long-term exchange rates stable above the equilibrium level and pursue exchange rate policy goals suited to the best monetary policy goals.

First, we should optimize the exchange rate formation system, further liberalize RMB exchange rate and allow the exchange rate to fluctuate more flexibly in two directions within a wide range, develop enterprises' awareness to enhance exchange rate risk management and use RMB in international transactions, and facilitate financial institutions' innovation of exchange rate risk management tools and RMB capital management business on a global scale.

Second, the RMB exchange rate system should transform from a managed floating system to a free floating one, and the exchange rate policy goals should be realized through indirect interference rather than direct one. Market arbitrage can bring exchange rates to a long-term equilibrium, and the central bank should quit normalized direct interferences, with measures to prevent the negative impact of excessive exchange rate fluctuation to the financial market and the real economy. We must optimize China's managed floating exchange rate system and win time and space for the transformation and development of China's real economy. In the future, after the capital account is opened in order, we will mainly use a portfolio of monetary policies, financial policies and income policies to maintain the stability of the long-term exchange rate above the equilibrium level. At the same time, in cases of speculative shocks or crises in the exchange market, we will maintain necessary foreign exchange intervention and capital control, strengthen the use of technical management tools and take decisive and effective measures to keep the RMB stable.

These are necessary measures against financial crisis expansion and systemic financial risks.

Third, in implementing exchange rate policies, we must pay attention to policy exchange and coordination at the global level. We should keep an eye on the spillover effect of the US macro policies, intensify communication with the US government, push forward the establishment of a dollar-RMB exchange rate coordination mechanism to reduce the negative impact of excessive exchange rate fluctuation on the economy and finance of both countries. We should actively respond to the negative interest rate policies, call for monetary policy coordination among founders of the SDR basket, avoid currency wars between major currencies and minimize the beggar-thy-neighbor effect. At the same time, we must consider the spillover effect of China's monetary and exchange rate policies on other emerging market economies. We will give priority to domestic demands, and consider the interest demand of others through proper communication and coordination mechanisms, so as to reduce policy friction and achieve win-win results.

4.3 Capital Flow Management Should Be a Key Entry Point for Macro Financial Risk Management

As the capital account opens, China's foreign exchange market and capital market will be the main target of overseas hot money and venture capital. We should draw a lesson from the crisis of emerging market economies caused by the shocks of international capital flow, and stay highly vigilant against international capital flow, especially short-term capital flow. We must identify and monitor the chain reaction in the domestic financial market resulted from cross-border capital flow, and enhance macro-prudential financial regulation to avoid systemic financial crises.

A more flexible RMB exchange rate system has upgraded the connection between cross-border capital flow and the financial market, making price coupling effects stronger and risks more contagious between the foreign exchange market, the currency market and the capital market, and between the off-shore and on-shore financial markets. The domestic financial market thus has vulnerability that cannot be overlooked. Studies prove that after the exchange rate reform on August 11th, the relation between China's capital market price, leverage ratio and cross-border capital net inflow has transformed from a unidirectional one to a circular correlation, a significant positive correlation. The shock to a certain variable shows a trend of reflexivity and growth. There is an interaction between market yield rate and short-term capital flow, which indicate that the shocks of short-term capital flow can influence the prices and leverage level of the capital market. The price difference between CNH and CNY and the uncovered interest arbitrage rate in the exchange market which had a great influence on capital market yield rate, leverage ratio and capital flow are becoming less prominent.

Therefore, the opening of the capital account should match with the exchange rate system reform, adhere to the principle of ‘gradual progress, controllability and coordination’ and meet the need of China’s economic and financial development and global economic environment changes. In a time when domestic financial market is not mature, the financial regulatory system is incomplete and measures against cross-border capital flow shock are limited, we should not open the capital account without full consideration. We should have a clear understanding of the net capital outflow in the short term and the influence of the ‘two-way’ fluctuation of cross-border capital flow on China’s economy. We must maintain prudential regulation of the capital account and keep the risks of capital flow shocks within an acceptable range.

In the current new situation, we should attach great importance to the possible systemic financial risks caused by large-scale short-term capital flow. We should master and utilize the linkage between capital market yield rate and exchange rate, enhance the coordination between monetary policies and exchange rate policies and sharpen the government’s ability to harness short-term capital flow. In managing capital flow, we should reduce its cost and expand its yield, and increase the cost of speculative capital flow. We must closely watch capital inflow and supervise all possible channels so that effective measures could be formulated in the case of capital outflow. Since the flow of QFII capital is a major leading indicator of the capital waiting to be invested, we must use big data technology to run high frequency data statistics and strengthen the regulation over and guidance for QFII.

We will make full use of the time window of rapid RMB internationalization to develop off-shore RMB market and provide more investment tools and channels to meet the rising demand for investment and trade. We will push forward the development of a self-circulation system of RMB to provide enough liquidity for off-shore market. We need to make special policy arrangements to coordinate between off-shore and in-shore markets and establish a mechanism with which in-shore prices can guide off-shore prices.

In developing the ‘international circulation’ mechanism of RMB, we should take Hong Kong as the center, develop the international capital market of RMB through the Shanghai-Hong Kong Stock Connect Program and establish the oversea RMB circulation mechanism under the capital account. From a broader perspective, we should make efforts to develop a Greater China Currency Region consisting mainland China, Taiwan, Hong Kong and Macau, and take peripheral use of RMB as a interim strategic choice.

We will enhance off-shore RMB market development in main international financial centers in Europe. We will facilitate the cooperation between domestic security and commodity exchanges with Frankfurt Exchange, Luxembourg Exchange and London Exchange, provide international RMB bonds, stocks, funds and structured securities and RMB-denominated gold, oil and other commodity futures, make full use of local marketing channels to expand the transaction scale of RMB products, create RMB network effects and promote the development of off-shore RMB market in both scope and depth.

After RMB was included in the SDR basket, the international community has a higher expectation for China to play the role of a superpower, and the requirement for RMB as an international currency is rising. We will channel international capital to One Belt and One Road projects and facilitate the international use of RMB through the AIIB, the Silk Road Foundation and the practical and effective operation of the cross-border RMB payment system. China will take this opportunity to actively participate in international financial governance, play a bigger role in the policy-making and negotiations of the IMF, the World Bank, the Bank for International Settlements and other international financial institutions and add to its voice in international financial system reform.

The inclusion of RMB in the SDR basket will inspire the willing of more countries and regions to cooperate with Chinese financial institutions and bring great internationalization opportunities for Chinese banks to expand overseas business and widen income channel in terms of both customers and products. In this proves, Chinese banks will inevitably face more complicated market environment and regulatory requirements, which change the quantity and structure of banks' risk exposure. Since China's economy is at a stage of de-capacity and deleveraging, banks will be challenged by the dual risks from home and abroad in internationalization, and problems such as asset deterioration, profit growth slowdown and liquidity risk increase may occur, which will reduce the banks' ability to resist risks. For systematically important banks, if risk control problems are left unsolved, these banks will lose their international competitiveness, miss the opportunity for internationalization and influence the stabilization of the domestic financial system. Risk control problems can even escalate into the amplifier of external shocks and the blasting fuse to systemic risks.

Chinese banks should grasp the opportunity to accelerate internationalization, provide all-round financial services for Chinese enterprises in the global market and help them establish their brand in this market. Chinese banks should formulate and adjust development strategies based on their characteristics and the external environment, add to relevant products and services, diversify the income structure, sharpen core competitiveness in the global financial market and improve the global influence of Chinese financial institutions. Since the overseas business environment is more complicated and risky, Chinese banks should improve awareness of risks, establish a right concept of performance and develop a complete risk management information system covering domestic and overseas business to regulate overseas operation and avoid operation risks. Political risks and compliance risks are prominent problems in cross-border operation; we should formulate laws and regulations related to cross-border operation of financial institutions and establish a complete overseas investment insurance system. Regulatory departments should level up the regulatory standards for capital adequacy ratio and liquidity of banks and enhance cross-border financial supervision cooperation, so as to ensure Chinese banks' internationalization.

4.4 Laying the Real Economic Foundation for RMB Internationalization Through Supply-side Reform

Sustainable mid-to-high growth of the real economy is the solid foundation for RMB internationalization, and the real economy is the basis of the internationalization of a currency. Strong economic power, large international trade volume, stable currency value, free capital use and effective macro policies are all necessary preconditions for currency internationalization.

Since the global financial crisis in 2008, the international economic environment changes have brought China's traditional economic growth pattern, mainly driven by export and investment, a mire of structural obstacles and emerging risks. The problems include: 1. China has weak innovation abilities and cannot stay on the top or in the middle of the international industrial chain. 2. The economic structure is unbalanced, with an excessively high saving rate, consumption is not enough to prop up economic growth and some industries suffer from overcapacity. 3. Small and medium sized enterprises have difficulties financing, and private investment shrinks. 4. China lacks global trade organizers and pricing power, and its trade is large in volume but not strong in power. At the same time, China's main trade partners are also suffering from a sluggish economy and slow recovery; as a result, the driving force from export weakens. Advanced economies take measures to revitalize the manufacturing industry, deleverage and focus on the real economy, which piles great pressure on China in global competition.

At the same time, empirical study on cross-border capital flow of G20 countries proves that since RMB internationalization started, the shock from capital flow has become more complicated and frequent, and added to the volatility of the real economy. Besides, with a comparatively highly virtualized global economy, China must prevent capital flow from further virtualizing the domestic economy.

Supply-side structural reform is the only way to create new growth momentum and develop a new structure for sustainable development. We should identify three handles in the supply-side reform and make achievements. First, we need to increase R&D investment, strengthen overseas M&A and take measures both at home and abroad to promote technology. A core task of the supply-side reform is to make up for the defects, which should be carried out both in and out of the country. Inside China, we will add to R&D investment, carry out institutional reform, encourage enterprises to develop technology, improve innovation capacity, improve all factor productivity and increase the core competitiveness of China's manufacturing. On the global level, we will encourage enterprises to go global, enhance M&A of high-end manufacturing in advanced economies and add to high-tech supply. Second, we must attach importance to financial structural adjustment, expand financing channels, reduce capital cost and let the financial sector further serve the real economy, so as to prevent any virtualization, or even bubbles in this sector. We should vigorously develop the factor market, make more use of the interest rate leverage to adjust supply and demand of fund and improve the economic efficiency of resource allocation. We will promote financial liberalization and innovation, encourage enterprises to raise funds overseas while keeping the risks under control, take advantage of the low interest rates in overseas markets to aid heavily indebted enterprises to deleverage, reduce capital cost and improve the vitality and competitiveness of enterprises. We should also accelerate the internationalization of financial institutions to provide cross-border enterprises and enterprises in the global market with all-round financial service, help them expand overseas markets, elevate their status and influence in the international labor division, and entitle them higher power and a greater say in trade activities. Third, we will coordinate and combine financial instruments with fiscal measures, encourage private enterprises to make direct investment, and use both domestic and overseas markets to optimize production factor allocation. On one hand, we must enhance brand development and management to meet the domestic demand for high-quality daily goods and luxuries, and gradually replace imported goods with domestic goods. On the other, we will design a reasonable foreign aid model to expand the PPP model overseas, help enterprises with global capacity cooperation, extend the life cycle of traditional competitive products and increase the all factor economic efficiency.

China must stick to the guiding thinking that finance serves the real economy and RMB internationalization serves the real economy. The rapid progress made in RMB internationalization will add to the faith of the international community in China and the motivation to invest. At the same time, RMB internationalization will help Chinese enterprises make outbound RMB investment more conveniently and receive stable returns. In particular, it will change the tradition of commodities to use the dollar in settlement, and bring a more stable supply mode to China's economy. Since the One Belt and One Road countries are now more willing to use RMB, China can promote the use of RMB in valuation and settlement in bilateral crude oil transactions with Russia, the Middle East and Central Asia, develop the crude oil futures price of Shanghai International Energy Center into another benchmark price after WTI and Brent, and improve the crude oil pricing power of China and these countries.

In the long run, the supply-side reform can settle the accumulated risks in China's real economy. The establishment of a innovative industrial system will ensure sustainable economic growth and create a material basis for RMB internationalization; the steady progress of RMB internationalization has not only added to the global demand for and faith in China’s economic growth, but also brought convenience to trade pricing and settlement and investment that can facilitate foreign trade and international cooperation, promote cross-border M&A and technological development, form new supply models of commodities and optimize resource allocation in the broader domestic and overseas markets. RMB’s appreciation in the process of internationalization has impelled the trade structure to upgrade from the bottom of the industrial chain to the middle and top of the chain, and formed a mechanism to speed up the transformation of the driver of China’s economic growth. Therefore, in a sense, RMB internationalization and supply-side reform are mutually reinforcing, and RMB internationalization itself is a major engine for the upgrading and transformation of China’s real economy.

4.5 It Is Urgent to Build a Macro-prudential Policy Framework Suited to China’s Reality

External shocks such as cross-border capital flow are intertwined with domestic financial market risks, institution risks and real economic risks, raising the possibility of systemic risks caused by the chain shocks from individual markets or partial risks. Therefore, it is urgent to build a macro-prudential policy framework suited to China’s reality, so as to prevent and manage systemic risks at the institutional level.

There is a possibility for the whole financial system to suffer from fierce fluctuation, or even crises caused by the entanglement of external factor shocks and internal factors. With the progress in China’s financial reform and RMB internationalization, cross-border capital flow has caused rising systemic financial risks inside China. Once impacted by these risks, not a single financial institution can avoid the suffering. In other words, systemic risks can influence several financial sectors or even the real economy at the same time. Whether a risk is a systemic one depends on whether several financial sectors witness abnormal trends at the same time.

Due to the diversified origin of systemic financial risks, we must have an overall control of the systemic risk assessment. We use the weighted average method to conduct a comprehensive assessment in terms of the financial policy environment, the financial market, financial institutions and foreign exchange market risks, so as to develop the integrated risk index of China and provide scientific reference for the precise and objective assessment of systemic risks. The result of the study shows that from July, 2005 to December, 2015, China went through 7 periods with high systemic risks. In specific, on July 21st, 2005, China adopted a managed floating exchange rate system with market supply and demand as the basis and the currency basket as reference. With this system, RMB was no longer pegged against the dollar. This exchange rate system reform brought great shocks and gave rise to the systemic risks of the month. The two systemic risk rises in October of 2007 and December of 2008 were attributable to the outbreak and spread of the US subprime crisis. The rising systemic risks early in 2010 originated from high inflation. After a period of stability from mid-2010 to early 2013, liquidity risks emerged in June, 2013 and caused an increase in systemic risks. The latest two risk rises were caused by the violent fluctuation in the stock market in mid-2015 and RMB depreciation at the end of 2015.

Though there are several temporary systemic risk rises, the main risks were all from single markets, and they have not caused risks in several financial sectors at the same time or resulted in the outbreak or a continuous increase of systemic risks. But we must notice that in the second half of 2015 alone, two major systemic risk rises occurred twice. Such a high occurrence frequency is rarely seen in history, and we must pay great attention to it.

The international financial crisis gave a heavy blow to the financial regulatory concepts, and the global community has basically reached the consensus that monetary stability cannot guarantee financial stability and the soundness of individuals cannot guarantee the soundness of the whole system. The call for financial stability has caused a reform in macro-prudential regulation. China has also actively participated in the global macro-prudential regulation reform, and released a series of macro-prudential policy tools in the domestic practice, which, to some degree, prevented the accumulation of systemic risks. In view of the problems caused by multiple regulatory agencies, such as divided policies from various sources, power overlaps, unclear responsibility and differentiated standards, we should draw upon international experience, identify the principles for China’s financial regulatory reform, establish a macro-prudential policy framework suited to China’s reality and provide an institutional guarantee for strengthening systemic risk management.

We should add a ‘macro-prudential’ dimension to the existing financial regulatory framework and identify the departments responsible for the implementation of macro-prudential policies. Since the crisis, the regulatory reform in all countries have identified these departments by enhancing the macro-prudential dimension of the existing regulatory framework, strengthening systemic risk supervision, assessment and prevention and establishing specific committees or prudential regulation bureaus.

Besides maintaining currency stability, the central bank should be granted more functions to guarantee financial stability and enhance financial regulation. After the crisis, main economies have focused on preventing systemic risks and maintaining financial stability as the core tasks of regulatory system reform, strengthened the central bank’s function to maintain stability and regulate the financial sector, and further facilitated the coordination between macro-prudent regulation reform and macro-economic policies.

We must identify the relation between monetary policies, macro-prudence, micro-prudence and behavior regulation in terms of both functions and mechanism, and strengthen the coordination and cooperation among them. This has become the main task of the financial regulatory system reform in all countries. In order to do this, we can incorporate monetary policies, macro-prudence and micro-prudence into a greater central bank model, establish a financial stability regulatory committee to strengthen the central bank's financial regulation and adopt a two-peak regulatory model consisting of prudential regulation and behavior regulation.

We must improve the accessibility and accuracy of financial data to provide comprehensive and timely information for the supervision, analysis and assessment of systemic risks. The Financial Stability Board, the International Monetary Fund, the Bank for International Settlement, the World Bank and other major economies are enhancing data accessibility and promoting the sharing and coordination of financial information by strengthening the central bank's functions, revising legal frameworks, improving the statistical system and expanding the statistical range.

We will also be dedicated to establishing effective crisis settlement mechanisms and enhance protection for financial consumers. From the perspective of the regulatory reform of major economies, the Federal Reserve and the Federal Deposit Insurance Corporation are jointly responsible for the treatment of systemic risks in the US; the Bank of England is responsible for dealing with financial crises and formulating financial institution treatment strategies in the UK; The EU established the European Banking Union to integrate banking regulation, treatment and the deposit insurance system. Besides, some countries have also set up specific institutions to further protect financial consumers. For example, the FED has established an independent consumer financial protection bureau to protect the interest of consumers.

5. Timeline of RMB Internationalization 2015

Time	Event
January 5th, 2015	PBOC designated BOC as the RMB business settlement bank in Kuala Lumpur.
January 6th, 2015	PBOC designated ICBC as the RMB business settlement bank in Bangkok.
January 12th, 2015	Serbia began to use RMB in international settlement.
January 21st, 2015	HSBC launched free trade account service.
January 21st, 2015	PBOC signed the Memorandum of Understanding with the Swiss National Bank; Swiss was granted 50 billion yuan RQFII quota.
January 28th, 2015	The Qualified Domestic Investment Enterprise (QDIE) project was implemented.
February 9th, 2015	The RMB clearing bank in Sydney opened.

February 13th, 2015	Trust companies provided RMB international venture loan service for the first time.
February 16th, 2015	China Foreign Exchange Trade System (CFETS) provided standardized RMB-foreign exchange swap transactions in the interbank foreign exchange market.
February 19th, 2015	Hungarian National Bank launched RMB projects
March 4th, 2015	The CCB became the first Chinese institution to acquire a RQFII license in Europe.
March 6th, 2015	The first non-financial institution issued RMB bonds in Korea.
March 16th, 2015	Samsung participated in the direct RMB-won transactions.
March 17th, 2015	Moscow Exchange launched RMB/Rubble futures transactions.
March 18th, 2015	PBOC signed a bilateral currency swap agreement with the Central Bank of Suriname.
March 19th, 2015	BOC took the lead to release the Credits Investing & Financing Environment Difference Index (CIFED).
March 24th, 2015	The China-Myanmar currency exchange centre was established in Ruili, Yunnan.
March 25th, 2015	PBOC signed a bilateral currency swap agreement with the Central Bank of Armenia.
March 25th, 2015	ICBC signed the Memorandum of Understanding with Toronto Stock Exchange.
March 25th, 2015	The first RMB RQFII Exchange Traded Fund in Europe was listed.
March 28th, 2015	The One Belt and One Road Roadmap was officially disclosed.
March 30th, 2015	PBOC and the Reserve Bank of Australia renewed the currency swap agreement.
April 7th, 2015	China launched the China-Ukraine currency swap agreement to aid Ukraine out of poverty.
April 10th, 2015	PBOC and South African Reserve Bank signed the currency swap agreement.
April 14th, 2015	The first RMB settlement bank in the Middle East was launched.
April 14th, 2015	The RMB settlement bank in Kuala Lumpur was launched.
April 17th, 2015	The PBOC and Bank Negara Malaysia renewed the currency swap agreement.
April 21st, 2015	Guangdong Free Trade Zone opened.
April 22nd, 2015	The RMB settlement bank in Bangkok was launched.
April 29th, 2015	Luxembourg was granted 50 billion yuan RQFII quota.
May 1st, 2015	The Deposit Insurance Regulations were implemented.
May 10th, 2015	PBOC and the National Bank of Belarus renewed the currency swap agreement.
May 15th, 2015	PBOC and the National Bank of Ukraine renewed the currency swap agreement.

May 20th, 2015	The Ministry of Finance issued RMB national debt in Hong Kong.
May 22nd, 2015	The AIIB Constitution was released.
May 25th, 2015	The yield curve of the RMB Formosa Bonds was disclosed.
May 25th, 2015	PBOC and the Central Bank of Chile signed the currency swap agreement. Chile was granted 50 billion yuan RQFII quota.
May 25th, 2015	PBOC designated CCB as the first RMB settlement bank in South America.
June 3rd, 2015	PBOC released the Circular on the Participation of Overseas RMB Business Settlement Banks and Overseas Participating Banks in the Bond Repurchase Transactions in the Interbank Foreign Exchange Market.
June 24th, 2015	Japan issued the first RMB bonds “Fujiyama Bonds”.
June 24th, 2015	Mongolia first issued RMB bonds.
June 27th, 2015	PBOC and the Central Bank of Hungary signed the currency swap agreement. Hungary was granted 50 billion yuan RQFII quota.
June 30th, 2015	CCB launched the RQFII currency market exchange fund denominated by RMB in Euronext in France.
June 30th, 2015	ICBC and Euronext signed a strategic cooperation agreement.
July 3rd, 2015	The first bank in Swiss announced to provide RMB account service.
July 7th, 2015	PBOC signed the Memorandum of Understanding on RMB settlement arrangements with South African Reserve Bank.
July 8th, 2015	PBOC designated BOC as the RMB settlement bank in South Africa.
July 9th, 2015	Korea launched the real-time RMB bond settlement system.
July 10th, 2015	The central banks of BRICS signed the Contingency Reserves Arrangement.
July 13th, 2015	The cross-border RMB loan policy of Nansha Hengqin Free Trade Zone was implemented.
July 14th, 2015	Quanzhou Financial Reform Pilot Zone was authorized to carry out the cross-border RMB loan pilot project.
July 14th, 2015	PBOC printed and issued the Circular on Issues Concerning the RMB Investment in the Interbank Foreign Exchange Market of Overseas Central Banks, International Financial Institutions and Sovereign Wealth Funds.
July 20th, 2015	The Singapore branch of ICBC finished the first RMB bond repurchase.
July 20th, 2015	BOC Hong Kong prolonged the clearing service period for RMB real-time payment settlement system.
July 22nd, 2015	Xiamen launched the cross-border RMB loan pilot program for Taiwan.
July 23rd, 2015	ICBC launched an RMB clearing mechanism in Pakistan.
July 24th, 2015	Crude oil futures trade was denominated and settled by RMB inside China.

July 28th, 2015	London Metal Exchange accepted RMB as a pledge currency.
July 31st, 2015	Shanghai Free Trade Zone cross-border RMB commodity spot transactions were launched.
August 4th, 2015	ICBC Singapore branch launched 24-hour RMB clearing service.
August 9th, 2015	The Suifenhe Rouble Cash Use Pilot Project was launched.
August 11th, 2015	PBOC improved the quote of RMB-dollar central parity rate.
August 13th, 2015	The Mongolian cash swap and use service was officially launched within China.
September 3rd, 2015	PBOC and the Central Bank of Tajikistan signed the currency swap agreement.
September 7th, 2015	PBOC adjusted the cross-border two-way RMB capital pool business policies.
September 15th, 2015	The filing system of foreign bonds issued by corporations was introduced.
September 17th, 2015	The new currency basket of the ECB granted RMB a bigger weight.
September 17th, 2015	PBOC signed the Memorandum of Understanding on RMB settlement arrangements with the Central Bank of Argentina.
September 18th, 2015	ICBC launched the RMB settlement banking service in Argentina.
September 18th, 2015	The NDRC published the Notice on Promoting the Registration and Management System of Foreign Bonds Issued by Corporations
September 19th, 2015	The RMB Exchange Traded Fund made new progress in Guangxi.
September 22nd, 2015	International commercial banks are authorized to issue RMB bonds in the interbank foreign exchange market.
September 23rd, 2015	BOC Xinjiang branch provided the quote of RMB-PKR cash exchange rate.
September 29th, 2015	Hong Kong and Shanghai Banking Corporation Limited and BOC (Hong Kong) issued “panda bonds” of international commercial banks.
September 29th, 2015	PBOC and the Central Bank of Zambia signed a Memorandum of Understanding on RMB settlement arrangements.
September 30th, 2015	PBOC allowed overseas central bank institutions to enter the interbank foreign exchange market.
October 6th, 2015	RMB surpassed Japanese yen to become the fourth largest payment currency.
October 6th, 2015	China released data on the basis of SDDS standards.
October 8th, 2015	The RMB cross-border payment system was officially launched.
October 20th, 2015	BOC disclosed the RMB stock exchange indices.
October 20th, 2015	PBOC and the Bank of England renewed the currency swap agreement.
October 20th, 2015	PBOC issued RMB-denominated central bank bills overseas for the first time.
October 22nd, 2015	The executive meeting of the State Council decided to launch the overseas QDII2 pilot programs.

October 23rd, 2015	The cross-border transportation channels of RMB cash to Russia was established.
October 23rd, 2015	The first non-financial off-shore corporate RMB bonds of mainland China was issued in Singapore.
October 24th, 2015	The deposit interest rate cap was liberalized.
October 29th, 2015	Shanghai Stock Exchange, Deutsche Börse and CFFEX jointly established the CEINEX.
October 30th, 2015	Shanghai Free Trade Zone released 40 regulations on the new financial reform.
November 2nd, 2015	Korea's RQFII quota was increased to 120 billion yuan.
November 2nd, 2015	Taiwan loosed the close position for RMB participating banks and RMB settlement banks.
November 9th, 2015	The interbank foreign exchange market carried out RMB-Swiss franc direct transactions.
November 16th, 2015	PBOC and the Central Bank of Turkey renewed the currency swap agreement.
November 17th, 2015	Singapore's RQFII quota was increased to 100 billion yuan.
November 18th, 2015	China Europe International Exchange opened.
November 23rd, 2015	Malaysia was granted 50 billion yuan RQFII quota.
November 25th, 2015	The first batch of overseas central bank institutions entered China's interbank foreign exchange market.
November 26th, 2015	PBOC and the ECB finished the bilateral currency swap test.
November 27th, 2015	British Columbia of Canada registered in China's interbank foreign exchange market and issued RMB bonds worth 6 billion yuan.
November 27th, 2015	The Ministry of Finance disclosed the 3-month and 6-month national debt treasury bonds return rates for the first time.
November 30th, 2015	The executive board of the IMF decided to incorporate RMB into the SDR currency basket.
November 30th, 2015	The US established an RMB trade and settlement work panel.
December 3rd, 2015	BOC released the first One Belt One Road RMB exchange rate index.
December 13th, 2015	The cross-border currency settlement between China and Tajikistan was launched.
December 14th, 2015	PBOC and the Central Bank of UAE signed the currency swap agreement. UAE was granted 50 billion yuan RQFII quota.
December 15th, 2015	Korea issued the first "panda bonds" of sovereign states.
December 17th, 2015	Thailand was granted 50 billion yuan RQFII quota.
December 18th, 2015	The US Congress approved the IMF's 2010 Quota and Governance Reform Plan.
December 21st, 2015	China exempted Zimbabwe from debts worth 260 million yuan.
December 25th, 2015	The AIIB was officially established.
January 4th, 2016	The trading period of China's interbank foreign exchange market will be prolonged.

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