

## Attila Tapaszi – Zsanett Sütő: Push and pull! Developments in the renminbi exchange rate

*The liberalisation of the Chinese capital and foreign exchange markets, the global enhancement of the role of the renminbi, as well as the rebalancing of the economy requires the co-ordination by Chinese decision makers of numerous, frequently conflicting goals and interests affecting different time horizons. The necessary consequence of this process is the emergence of volatility in certain economic and financial variables which cannot be considered extreme by global standards, but might appear unusual in relation to the China of the past decades. Since August 2015, the Chinese central bank has managed the exchange rate leaving more room for market supply and demand. This has been reflected in the depreciation of the renminbi by 5-6 per cent and the higher volatility of the exchange rate ever since. This article examines the changes brought about by the responses given to economic challenges (rebalancing, trilemma, variable capital flows) in the Chinese foreign exchange market.*

### Rebalancing and its restricting framework: the so-called trilemma

It is a well-known and often repeated fact that in the past decades Chinese growth has been investment-oriented (the drive for exports is also a decisive, but not the primary factor). The measures taken in the framework of the economic liberalisation launched in 1978, technological advancement and the enormous buffer on the labour market ensured outstanding growth for China for almost three decades; then, however, it inevitably led to the ever increasing pace of indebtedness and the build-up of excess capacity. This process was no longer accompanied by a similar expansion of the economy and debt servicing capacity. The investment dynamics of state owned entities largely contributes to growing indebtedness, which aims to counterbalance the dwindling investment rate of the private sector (e.g. the structural transformation of the housing market). Chinese decision makers recognised the limitations of such structure of growth and have set a number of goals to manage the situation.

As indicated in an [article](#) published earlier, the Chinese economy faced the problem of the so-called trilemma (the maintenance of independent monetary policy, an open capital account and a fixed exchange rate cannot be realised at the same time). The preservation of the Chinese decision makers' credibility plays a key role in the resolution of this problem. Without controlling the process and faith in its manageability, the necessary social costs of liberalisation are likely to be too high to avoid putting the most crucial goal at risk: the rebalancing of the economy. In light of this the slow, managed depreciation of the renminbi as well as the fact that a more intensive and potentially sharp depreciation of the renminbi would presumably go against the efforts made to transform the economic structure become clear.

In this regard, special attention is to be paid to the promise to realise a supply side reform, the enhancement of productivity, stronger market development, a reduction in the contribution of investment, the increase in household consumption, "exports" of excess domestic capacity by creating new markets (e.g. the One Belt, One Road initiative) and the strengthening of the Chinese "soft power" in a broader sense. However, the question arises as to how will the costs of the transformation - during which the economic expansion slows - be allocated among economic agents.

This might hit the more prominent actors of the former structure most adversely in certain cases (it is the so-called "vested interest"), which indicates the economic and political challenges and the implementation risk reforms carry for Chinese decision makers.

## Volatility of capital flows

One of the important aspects of the general assessment above and also a sign of the need to restructure the economy is recent developments in the renminbi market. Before 2014 significant appreciation pressure was concentrated on the Chinese currency - thanks to the current account surplus over the long period of time and the managed closed capital account - that was slowed by the Chinese central bank by interventions and the latter was reflected in record high foreign exchange reserves. (At its peak in June 2014 Chinese foreign currency reserves amounted to USD 3,993 billion, while currently it is around USD 3,200 billion.) However, after 2014 a constant change could be observed in the factors previously supporting strengthening. On the one hand, this is the consequence of the economic policy described above, and, on the other, the change observable in the global competitive environment. The latter was among other things reflected in the slow changes in expectations related to Fed's monetary policy that has not yet manifested itself in actual measures, the strengthening of the U.S. dollar and the slowdown of world trade growth.

According to certain calculations,<sup>1</sup> while the combined amount of the Chinese current account surplus and net foreign direct investment (FDI), constituting the fundamental factors of developments in the exchange rate, amounted to 12.7 per cent of GDP in 2007, it only showed a surplus of 1.1 per cent in March 2016. This decline can be attributed to two factors: first, the direction of net capital flows (FDI) has reversed and second, the balance of services, playing an increasing role in the current account, shows rising deficits.

The former is the necessary consequence of the cautious opening-up of the capital account. The global growth of Chinese investments can obviously be considered as a favourable process, as in the last decades the amount of Chinese gross global investments has been far below the volume of foreign investments made by the great economic powers: Japan, Germany, USA, the UK. Thus this tendency can be interpreted as some kind of an investment requirement pent up over the decades, which might have a strengthening effect on the renminbi in the long term due to the repatriation of earnings (profit etc.). The deterioration in the services balance is a sign of the rebalancing of the economy (the sharp increase in tourism, use of legal, financial and other services etc.), while currently the domestic service sector is not able to fully meet the requirements of the economic agents slowly moving to a higher level in the value chain.

### **“Tribalancing” - or why is the renminbi exchange rate so volatile?**

**In Chinese economic policy it is not only rebalancing the real economy but also finding balance of the three positions of “impossible trinity” that poses also a challenge.** To put in simpler terms, the theory of “impossible trinity” states that the following three aims cannot be achieved at the same time:

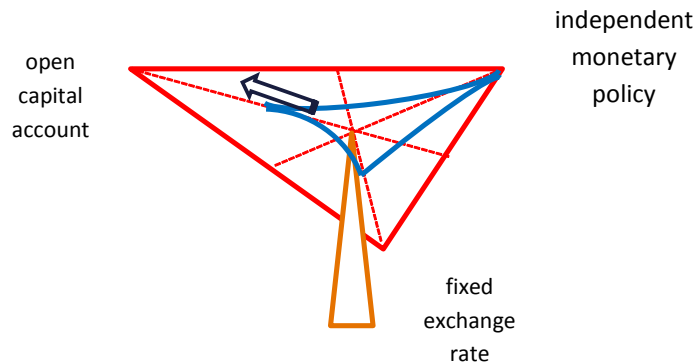
- independent monetary policy
- open capital account
- fixed exchange rate system

Contradicting the theory, China seems to be attempting to move closer to all three positions at the same time. **Balancing between the positions of the impossible trinity, that can also be called (tri)balancing, is in effect an iterative (“trial and error”) approach. By virtue of its nature this is almost certain to bring about greater volatility temporarily on the financial markets.**

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<sup>1</sup> BNP Paribas, Chi Time, 27.07.2016.

**Chart 1: Trilemma**



*Source: edited by the author*

However, it can also be concluded that Chinese authorities had implemented measures aimed at soothing market concerns that could also contribute to the decrease in volatility. They demonstrated a strong commitment to a stable renminbi exchange rate and took specific actions to that effect. Furthermore, the market continued to open up towards foreign investors. From the spring of 2016 onwards more investors have been able to participate in the RQFII (renminbi qualified foreign institutional investor) and QFII (qualified foreign institutional investor) programmes providing access to the Chinese onshore securities markets. The opening-up of the securities market could contribute to the easing of concerns relating to capital outflow; however, the trends in capital flow (first and foremost capital outflows promoted by the global diversification mentioned above) are a driving force that might continue to have a significant effect on Chinese economic developments and the exchange rate of the renminbi.

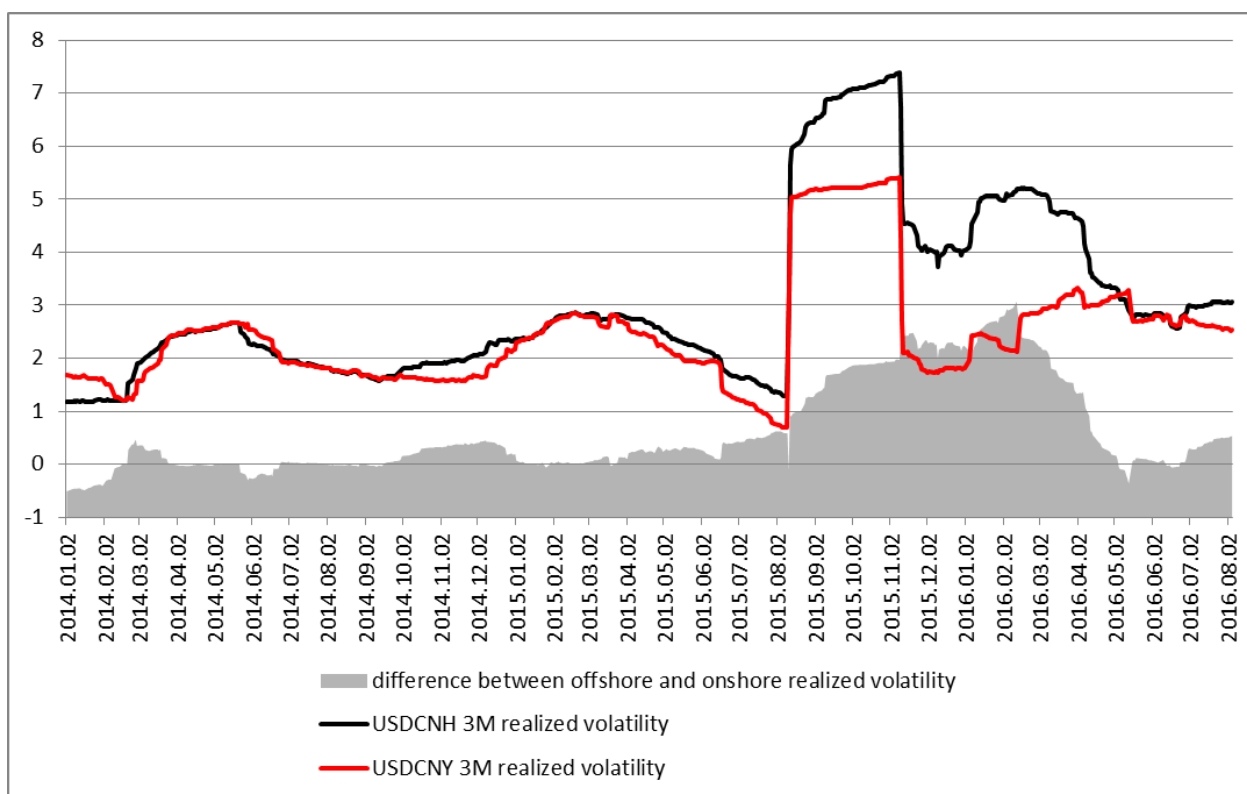
### **How volatile is the renminbi exchange rate?**

More answers are available to the above question depending on whether the exchange rate of the offshore or the onshore renminbi is under examination, and which currency the change in the exchange rate is examined against.

On the offshore FX market, the exchange rate of the renminbi can fluctuate mostly in a way determined by market forces, while on the onshore market it can do so within a specified band during a day. The amount of the shift in the exchange rate should be interpreted against a spot FX market and its value may vary by currency pairs.

In general, exchange rates are more volatile on the open offshore market (see Chart 2). It should be noted that in turbulent times the volatility can be much higher on the offshore market, than on the onshore market, where the Chinese central bank can intervene using several instruments to stabilise it. As the strains in financial markets eased, the difference between the volatility on the onshore and the offshore markets decreased significantly by the second half compared to the levels in the turbulent times at the beginning of the year.

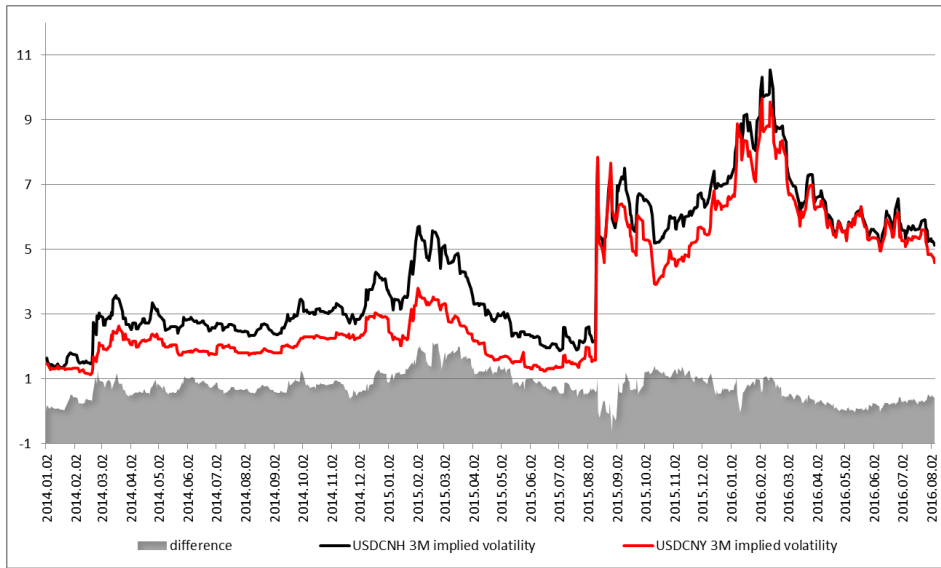
**Chart 2: The volatility of the RMB/USD rate on the onshore and the offshore spot foreign exchange market based on historical data**



Source: Bloomberg

Apart from the actual volatility of exchange rates it is worth examining market participants' expectations relating to the future volatility of the exchange rate, which can be captured by the so-called implied volatility (see Chart 3). It was in August 2015 when the Chinese authorities announced that more room would be left for the market forces to take hold in the official onshore exchange rate fixing in the future. Looking ahead, the majority of market participants expected much more volatile exchange rate developments compared to earlier trends, which could be captured in the sharp increase in implied volatility. Then at the beginning of 2016 volatility was at higher levels than earlier. Concerns about the performance of the Chinese economy, developments in capital flows, the weakening of the renminbi, as well as the market turbulences at the beginning of 2016 might have contributed to this phenomenon. Subsequently in the spring of 2016 the value of volatility returned to the levels observed in 2015 Q4, then it decreased further in the summer of 2016. The decline in implied volatility might indicate a decrease in market uncertainty, and the fact that the renminbi did not undergo a large-scale depreciation and that concerns related to the flight of capital and the performance of the Chinese economy eased by the summer of 2016 may have played a role in this. The decline in the difference between onshore and offshore market volatility might indicate that, looking ahead, the role of market forces is expected to increase on the onshore market as well and, furthermore, it may also suggest that the market does not expect significant tensions over the short term.

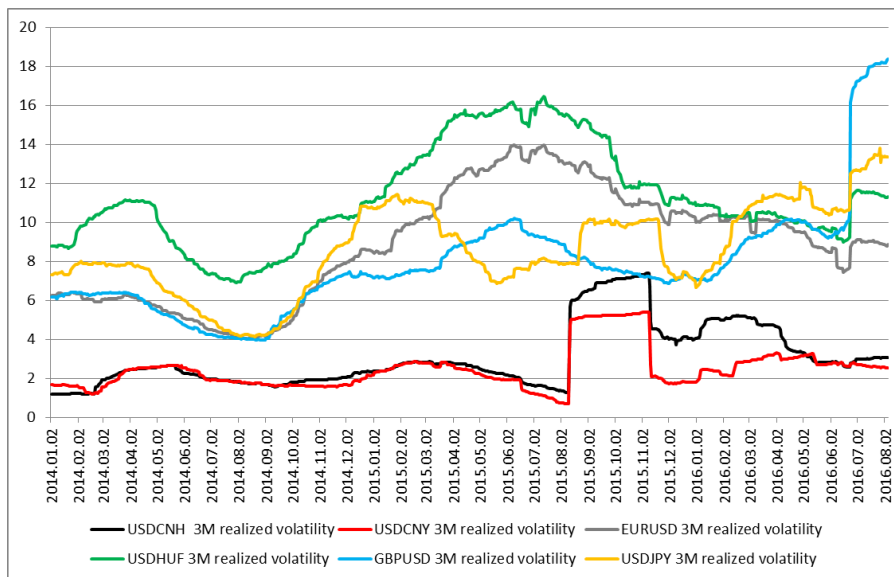
**Chart 3: The development of market expectations related to the volatility of the USD/RMB exchange rate on the Chinese onshore and offshore foreign exchange markets**



Source: Bloomberg, authors' calculation

It might be useful to compare the volatility of the renminbi exchange rate with that of other currencies. Chart 4 shows the volatility of offshore and onshore renminbi and other currencies against the US dollar. It can be seen on the Chart that in the past two years although sometimes close the renminbi exchange rate was mostly below the values observed on other floating currency markets even in supposedly turbulent times, which can be the obvious consequence of a managed exchange rate regime. Over the longer term, if the opening up of the foreign exchange market continues, the volatility of the renminbi might converge towards levels observed in the case of the major currency pairs, which may assign a higher value to the application of risk management techniques. Hedging instruments are available for a specific group of currencies on the onshore foreign exchange market and there are additional possibilities on the offshore market as well.

**Chart 4: The volatility of the Chinese onshore and offshore exchange rate in international comparison**



Source: Bloomberg

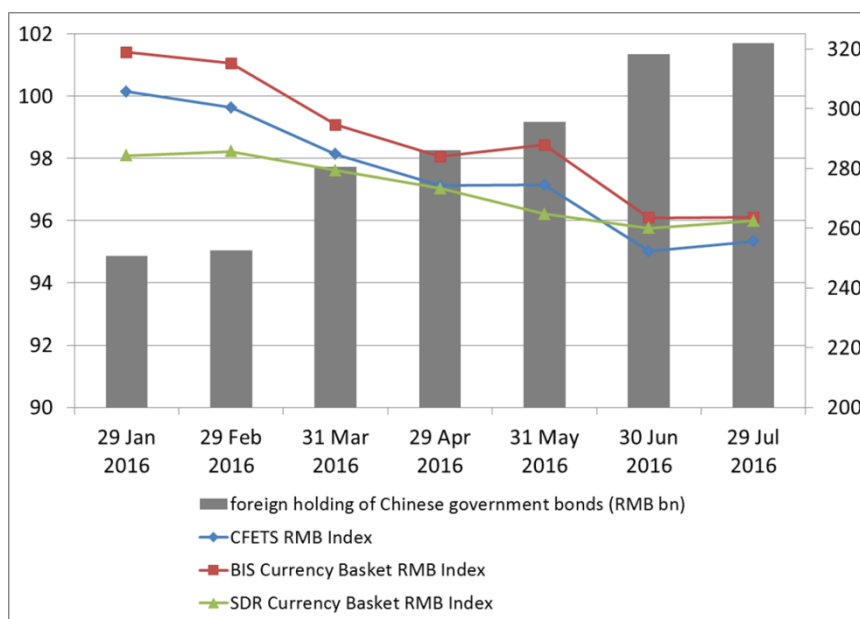
## Where to now, renminbi?

The Chinese currency is one of the most widely used settlement currencies in the world according to the data published by SWIFT in June 2016, but there is still some room for growth in renminbi usage. A further step towards the internationalisation of the renminbi is the widespread use of renminbi denominated assets. It is supported by the Chinese currency being included in the SDR basket. In the course of renminbi usage there might be uncertainty related to the exchange rate developments: the exchange rate level and its volatility.

In relation to the developments in the renminbi exchange rate the Chinese central bank noted that developments in the exchange rate of the Chinese currency are monitored not only against the US dollar, but also against other currencies. This might contribute to the preservation of credibility, because it makes an additional instrument available for decision-makers and so they can make adjustments taking into account the indices in the light of global trends during exchange rate management. Recently all three indices have shown the depreciation of the renminbi at different rates.

Nevertheless, foreign investors' demand for opportunities on the Chinese bond market continues to rise: In 2016, foreign investors' government securities purchases were continuously on the rise as the market was opening up (see Chart 5), which was not fully able to eliminate the factors pointing to currency depreciation before; however, it appeared as a counterbalancing force.

**Chart 5 Developments in the CNY exchange rate against several currency baskets and the changes in foreign investors' government bond holdings in 2016**



Source: CFETS, Calculations performed on the basis of Chinabond data

Considering the volatility of the exchange rate it should be noted that while its stabilisation remains a priority in the future, there might be periods when the exchange rate may be more volatile, because striking the balance between the goals of financial market tribalancing and real economy rebalancing might pose several challenges. In addition, it should be noted that the Chinese regulatory authorities have managed to mitigate the volatility of the renminbi in several cases.