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The Interaction between CFETS RMB Index and USDCNY

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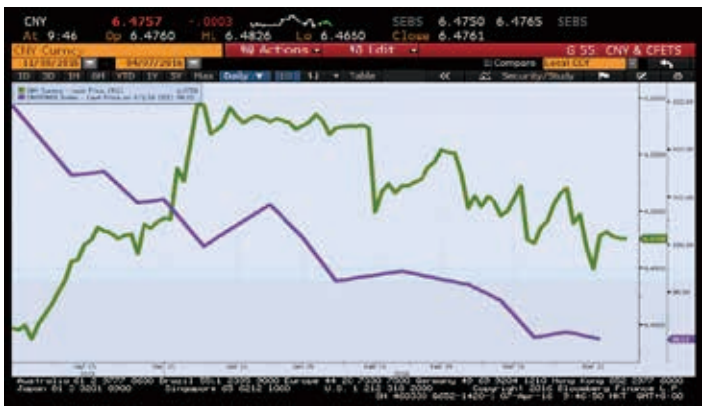
On December 11, 2015, China Foreign Exchange Trade System launched the CFETS RMB Index, aiming at shifting the market's sole focus on the exchange rate between the RMB and the USD to the RMB's performance against a basket of currencies. At that time, the forex market had reversed its expectation of the RMB from one way appreciation to one way depreciation against the USD.

Divergence

CFETS RMB Index's currency basket includes the 13 currencies currently listed and directly trading against the RMB in CFETS. Generally speaking, the more currencies are included, the lower the volatility of an exchange rate index. And bilateral exchange rates will likely top the basket in terms of volatility. Accordingly, CFTES RMB Index may even move in the opposite direction of USDCNY.

Nevertheless, the forex market's focus is still squarely on USDCNY. This is because firstly, the weight given to the USD in an index will ultimately decide whether it rises or falls. But the assignment of weightings is subjective without consensus. Each exchange rate index such as BIS or SDR's gives different weightings to the USD, resulting in markedly different results. Secondly, be it in the onshore or offshore markets, more than 90 percent of forex trading involving the RMB is against the USD. Thirdly, CFETS RMB Index is not tradable. Therefore, in terms of exchange rate stability, stabilizing USDCNY is as important as CFETS RMB Index itself.



Sources：Bloomberg, BOCHK Research

From November 30, 2015 to April 1, 2016, CFETS RMB Index has been trending downwards and giving up earlier gains. Meanwhile, CNY also depreciated modestly as a whole, but demonstrating the exact opposite pattern of reversing most of the earlier losses. The market sentiments stabilize as a result, suggesting that right or wrong, the forex market is still fixated on USDCNY.

CFETS RMB Index is reported once a week, with the starting point on November 30, 2015. On that day, it was at its record high of 102.93, showing the RMB had gained against a basket of currencies by 2.93%. Since then, the index embarked on a downward track, rebounding somewhat during the course before resuming the decline. On April 1, 2016, it stood at 98.01, depreciating by 1.99% against the basket. From the record high, the decline of the index totaled 4.92%, not a small amount given that it was against a basket of currencies. And it was not small either for CNY, because similar depreciation of about 6.1% from August 11, 2015 to January 7, 2016 rattled the market's nerves.

As for the market focus on USDCNY, it is another story. Up till January, CNY continued its weakness by depreciating 3.0% more since late November last year. Then under the effective stabilization measures imposed by the authorities, it began to rebound, gaining 2.2% till April 1, and narrowing the cumulative loss since late November last year to 1.3%. When compared to the level at yearend 2015, CNY was even slightly up, breaking the one way depreciation expectation that had plagued the RMB for half a year. And at the end of February this year when the POBC cut the reserve requirement ratio, CNY not only did not weaken, it continued to gain some ground, suggesting exchange rate stabilization has been achieved. At the end of last year and beginning of this year, reports were plenty on how hedge funds were positioning to profit from the weakness of the RMB. But since March, related reports were shifting their tones to how the hedge funds got burned.

The interaction between CFETS Index and USDCNY

Currently, 13 currencies are included in CFETS RMB Index, with weightings assigned based on trade weighted average taking into account of re-exports. As China is one of the world's largest trading nations, it can be expected that more currencies can be traded directly with the RMB given further developments in China's forex market and the RMB internationalization. Accordingly, the basket may include more currencies. However, now that the current 13 currencies include all of the world's major reserve currencies such as the USD, EUR, JPY, GBP, CHF, CAD, AUD, etc., and combined they account for more than 80% of the basket, the inclusion of smaller currencies may not affect the index movement much.

Monetary authorities such as the Federal Reserve, ECB, BOE, compile their own exchange rate index with high transparency. The currency composition for the basket and their respective weightings are for all to see. However, they do not have exchange rate mandate, and do not target certain levels for their currencies or currency indices. Instead, they all adopt floating exchange

rates, and exchange rate indices are for reference only. The same can be said about the BIS or SDR currency indices. CFETS RMB Index has the same transparency, and it is designed with the aim to diversify the market's sole attention on USDCNY. As a result, its practicality should be substantially higher than other currency indices.

The RMB's exchange rate mechanism is neither pegging to the USD nor free floating, but rather managed float. After the launch of CFETS Index, there is the added mandate of referring more to the index and maintaining its stability. Under such a mechanism, it involves leading the market to calculate the level of USDCNY in order to maintain the stability of the index, requiring market makers to take into such considerations when they submit their central parity rate bids (not just the CFETS Index, but also the BIS and SDR indices), and the central bank targeting the stability of the index when it intervenes. As a result, the RMB should exhibit stability against the basket while USDCNY exhibiting two way volatilities.

Then the next question is whether it still counts as stability given CFETS RMB Index has been down by 4.9% from late November last year, and giving up all its gains while CNY recovering most of its losses.

CFETS RMB Index

Currencies	Weight	Changes (11/30 /2015 - 4/1/2016)
USD/CNY	26.4%	-1.3%
EUR/CNY	21.4%	-9.2%
JPY/CNY	14.7%	-11.7%
HKD/CNY	6.6%	-1.3%
GBP/CNY	3.9%	4.3%
AUD/CNY	6.3%	-7.6%
NZD/CNY	0.7%	-6.2%
SGD/CNY	3.8%	-5.8%
CHF/CNY	1.5%	-8.8%
CAD/CNY	2.5%	-4.0%
CNY/MYR	4.7%	-11.0%
CNY/RUB	4.4%	0.3%
CNY/THB	3.3%	-3.5%

Sources: Bloomberg, BOCHK Research

Regarding bilateral exchange rates, the RMB appreciated against only two currencies within the basket during the period, namely the British pound and Russian ruble. It was down against the other eleven currencies. Yet, it depreciated by less than the index's 4.9% loss against the USD, HKD, CAD and THB, which combined account for 47.1% of the index. This suggests that the softness of the index comes mainly from the greater depreciation of the RMB against the rest of the basket. An important factor is the rolling over of the USD that results in passive weakness in the RMB. During the four months, the Dollar Index declined from the high of 100 to 94.6%, or more than five percentage points. It depreciated more against the likes of EUR, JPY and CHF. Meanwhile, CNY was down by only 1.3%, remaining relatively stable.

Back to CFETS RMB Index, PBOC explains that exchange rate stability does not mean the index can only fluctuate within a narrow range around 100. Rather, it means market makers need to make adjustments based on the previous day's close of CNY and the mandate of stability of the index within 24 hours when they submit their central parity rate bids. Or course, the BIS and SDR indices also need to be considered. So in practice, if the Dollar Index rises, USDCNY central parity rate will depreciate in order to maintain stability of CFETS RMB Index, and vice versa.

By doing so, the central parity rate can avoid the downward spiral caused by pegging to the previous day's close even if the market is still dominated by one way depreciation expectation. Both CNY and CFETS Index regain stability. Moreover, the unique feature of this mechanism is stability of central parity rate fixing, rather than the index only being able to fluctuate within a narrow range. Otherwise, it will mean the RMB exchange rate pegging or half pegging to the basket, and the central bank will have to intervene from time to time to maintain the peg, defeating the original purpose of greater market orientation in the exchange rate mechanism.

Lower predictability, but higher market orientation

Under this mechanism, CFETS RMB Index needs to maintain stability in the very short term only, while cumulatively it can record substantial increase or decrease. And USDCNY can also record substantial increase or decrease given the dollar's strength or weakness and the CFETS Index's stability. Thus, it becomes more unpredictable for both the CFETS RMB Index and CNY. And one way appreciation or depreciation expectation may be a thing of the past. All the parties involved will have to get used to this development, which is exactly what market oriented reform calls for.

The forex market is obviously less sensitive to the changes in CFETS RMB Index than USDCNY. For example, there has been little concern when CFETS Index was down by 4.9% since late November last year as long as CNY was down by only 1.3%. But prior to January 11 this year when CNY lost 6.1%, the market was jittery. This is partially due to the old habits of forming one way expectations and insufficient preparations for two way volatilities.

According to Bloomberg's historical volatilities calculation that measures deviation over a period from the average rates, USDCNY is the least volatile currency measured from 10 days to one year out when compared to other major currencies such as EUR, JPY, GBP, CHF, CAD, AUD, etc. The longer the measuring period, the greater the divergence. The volatilities of other major currencies could easily be multiple times of that of the RMB over a longer period of time. This could easily breed one way expectations, which was manifested last year. Thus, all market participants need to make adjustments in order to adapt to the new development of greater two way volatilities for the RMB exchange rate.

主要經濟指標 (Key Economic Indicators)

一．本地生產總值 GDP	2014	2015	2015/Q3	2015/Q4
總量（億元）GDP($100 Million)	21,946	22,464	5,716	5,967
升幅(%) Change(%)	2.6	2.4	2.2	1.9
二．對外貿易 External Trade	**2014**	**2015**	**2016/2**	**2016/1-2**
外貿總值（億元）Total trade($100 Million)				
港產品出口 Domestic exports	553	469	27	61
轉口 Re-exports	36,175	35,584	2,018	4,982
總出口 Total exports	36,728	36,053	2,045	5,043
進口 Total imports	42,190	40,464	2,376	5,548
貿易差額 Trade balance	-5,463	-4,411	-331	-505
年增長率(%) YOY Growth(%)				
港產品出口 Domestic exports	1.7	-15.2	-8.4	-17.2
轉口 Re-exports	3.2	-1.6	-10.5	-6.5
總出口 Total exports	3.2	-1.8	-10.4	-6.6
進口 Imports	3.9	-4.1	-10.1	-9.5
三．消費物價 Consumer Price				
綜合消費物價升幅(%) Change in Composite CPI(%)	4.4	3.0	3.1	2.9
四．樓宇買賣 Sale & Purchase of Building Units			**2016/3**	**2016/1-3**
合約宗數（宗）No. of agreements	81,489	76,159	3,154	8,860
年升幅(%) Change(%)	15.6	-6.5	-49.2	-60.8
五．勞動就業 Employment			**2015/11-2016/1**	**2015/12-2016/2**
失業人數（萬人）Unemployed(ten thousands)	14.95	12.2	12	12.1
失業率(%) Unemployment rate(%)	3.2	3.3	3.3	3.3
就業不足率(%) Underemployment rate(%)	1.5	1.4	1.4	1.3
六．零售市場 Retail Market			**2016/2**	**2016/1-2**
零售額升幅(%) Change in value of total sales(%)	-0.2	-3.7	-20.6	-13.6
零售量升幅(%) Change in volume of total sales(%)	0.6	-0.3	-19.5	-12.3
七．訪港遊客 Visitors				
總人數（萬人次）arrivals (ten thousands)	6,084	5,931	430	952
年升幅(%) Change(%)	12	-2.5	-20.5	-13.6
八．金融市場 Financial Market			**2016/1**	**2016/2**
港幣匯價(US$100=HK$) H.K. Dollar Exchange Rate (US$100 = HK$)	775.6	775.1	778.6	777.6
貨幣供應量升幅(%) change in Money Supply(%)				
M1	13.0	15.4	14.1	15.9
M2	9.5	5.5	5.8	4.9
M3	9.6	5.5	5.7	4.9
存款升幅(%) Change in deposits(%)				
總存款 Total deposits	9.7	6.7	7.3	6.8
港元存款 In HK$	9.3	10.7	8.7	9.4
外幣存款 In foreign currency	10.1	3.1	6.0	4.5
放款升幅(%) in loans & advances(%)				
總放款 Total loans & advances	12.7	3.5	2.3	1.4
當地放款 use in HK	12.1	3.5	2.1	2.1
海外放款 use outside HK	14.2	3.6	2.7	0
貿易有關放款 Trade financing	-1.4	-16.3	-24.4	-20.6
最優惠貸款利率(%) Best lending rate (%)	5.0000	5.0000	5.0000	5.0000
恆生指數 Hang Seng index	23,605	21,914	19,683	19,112