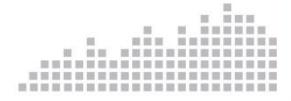


Research Digest Growing Trend of Globalization and the Need for Strengthening Onshore Currency Markets Jan 2014, Vol 2. Issue 1 (Monthly)

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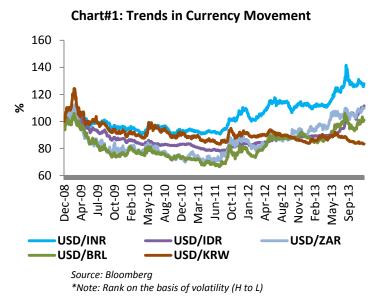


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RESEARCH DIGEST

Growing Trend of Globalization and the Need for Strengthening Onshore Currency Markets

Trends in Currency Movement: Until 2010, emerging market currencies being the flavor of investors had an appreciating phase, but the onset of 2011 reversed the trend for all these currencies studied. USDINR being the most affected of them. South Korea faced a different problem of a significant KRW appreciation.



Table#1: Performance Study (Dec 2008 - Dec 2013)

Rank*	Country (Currency)	Volatility	Percentage Change
1	South Africa (Rand)	1.06%	9.83%
2	Brazil (Real)	0.93%	0.91%
3	South Korea (Won)	0.69%	-16.60%
4	Indian (Rupee)	0.60%	27.93%
5	Indonesia (Rupiah)	0.40%	11.51%

Table#2: Recent Measures Taken by Central Banks towards Stabilizing Currency Flows

Country	Date	Measure
South Korea	Oct 2013	The Central Bank of Korea entered into currency-swap agreements with Malaysia, Indonesia and the UAE, bringing the number of currency-swap partners to five (including China and Japan). More deals are likely to follow; agreements with Australia and New Zealand are already on the table.
South Africa	Feb 2013	In the 2013 Budget review, the National Treasury proposed that each JSE listed entity would be entitled to establish one subsidiary to hold African and offshore operations, which will not be subject to foreign exchange restrictions.
South Anica	May 2013	JSE cut fees for interest rate and currency derivatives: The JSE has a history of reducing fees for both currency and interest rate derivatives in order to remain competitive while attracting OTC business onto the exchange.
Indonesia	Dec 2013	Indonesia announced that it will allow increased levels of foreign investment in the country's pharmaceutical companies to 85% (from 75%), and advertising agencies to 51% (from 49%).
Brazil	Dec 2013	The government removed the 1.5% tax on the conversion of local shares into depositary receipts. Brazil is unwinding capital controls that had sought to limit dollar inflows as the real climbed to a 12-year high in July 2011. The government cut a tax on foreign investment in fixed income in June and two months earlier eliminated levies on loans for the purchase, production and leasing of capital goods.

Source: Respective country's central banks and related press releases

Onshore Vs Offshore trading – Snapshots in to the history: A comparative analysis into the percentage share of forex trading in offshore and onshore markets since the 2007 i.e. before the start of financial crisis and post the QE roll out clearly shows that offshore markets have grown rapidly as compared with the onshore markets in all the currencies being compared and that INR is no exception to it.

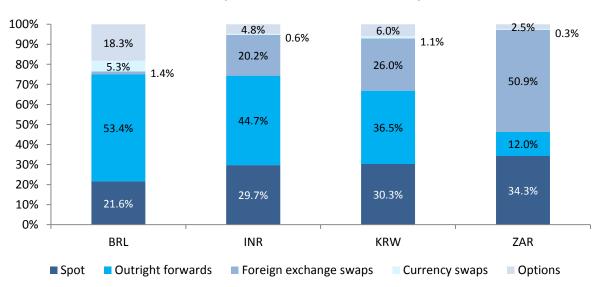
Rank*	СҮ	20	13	2010		2007	
капк	Country (Currency)	Offshore	Onshore	Offshore	Onshore	Offshore	Onshore
1	Brazilian (Real)	79.6	20.4	67.6	32.4	64.7	35.3
2	South African (Rand)	79.5	20.5	73.9	26.1	74.6	25.4
3	Indian (Rupee)	53.0	47.0	45.5	54.5	24.2	75.8
4	Korean (Won)	42.7	57.3	42	58	32.1	67.9

Table#3: Offshore and Onshore share of total FX turnover (%)

Sources: BIS, Triennial Central Bank Survey (December 2013), IMF, FOW Trade calculations. Note: Data not available for Indonesia; *Ranking on the basis of offshore 2013 data (H to L)

Of the other market forms, NDF markets accounts for a major share of the offshore markets

According to latest <u>BIS survey</u> (December 2013), after BRL in which NDF Market has the highest share among all the offshore instruments at 53.4%, NDF market for INR stands second constituting about 44.7% of the Total offshore forex market. Interestingly, ZAR which has largest share of offshore currency markets among the currencies under comparison herewith has a lowest share of NDF volumes but the highest share of foreign exchange swaps market.



Chart#2: Composition of Offshore Markets (April 2013)

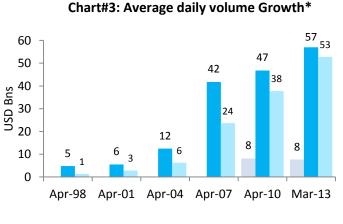
Source: BIS and Trinneial Survey (December 2013)

Note: The above turnover is inclusive of trades against USD only



Different Markets for INR with Different Set of Players with Different Rules of the Game

Growth in offshore markets continued to outpace the growth of the onshore markets since 2007 largely due to the quantitative easing policies of the west. While OTC and Exchange Traded Markets (ETMs) moved in tandem, growing influence of information and communication technology (ICT) and the recent central bank research indicates that despite having different set of stakeholders with different regulations influence each other.







Chart#4: Turnover: OTC and ETMs# (USD Bn)

Exchange Traded Markets OTC Markets Offshore

*Source: RBI database, SEBI bulletin, BIS and Trinneial Survey (December 2013) #Source: SEBI bulletin and RBI database; *Note: Data considered Offshore and ETM is for April 2013 and OTC data for March 2013

Currency Markets Across Performance Parameters: Exchange traded volumes thrive on volatility but its volatility had remained relatively lower than OTC forward markets from 2010 through 2013. On the contrary, continued development of ETMs have narrowed down the spreads in the OTC markets which have always thrived on spreads for their growth. Recent fall in the ETM volumes is seeing the OTC markets returning back to the higher spread era.

Table#4: Historical Volatility - Average Daily Volatility

СҮ	Volatility*		Average spread (in bps)#		
Cr	ОТС	ETMs	ОТС	ETMs	Offshore
2010	0.491%	0.478%	0.02841	0.01089	0.00085
2011	0.487%	0.487%	0.02332	0.00943	0.00073
2012	0.630%	0.610%	0.02076	0.01071	0.00062
2013*	0.786%	0.759%	0.02395	0.01042	0.00081

Source: Bloomberg; () Data for Calendar year 2013, considered till 4th Dec, 2013 # Note: spread of monthly BID-Ask average; offshore markets considered are NDF markets **OTC and CDS markets**: Despite the strengthening of ICT and increasing transparency, lack of arbitration facility effectively led to a decline in correlation between both the markets.

Table#5: Strengthening of the OTC and CDS markets					
OTC ETM					
Transparent to	Participants	All			
Participants	Banks, Hedgers, and other participants	All eligible participants			
Correlation between OTC and ETM	99.97%				
Correlation between OTC and ETM	3 months prior to Issuance of Circular	3 months post to Issuance of Circular			
Circular: May 21st, 2012*	99.77%	97.17%			
Circular: July 8th, 2013#	99.74%	99.47%			

Source: Bloomberg

*May 21st, 2012: The positions in the exchanges (both Futures and Options) cannot be netted /offset by undertaking positions in the OTC market and vice-versa. The positions initiated in the exchanges shall be liquidated /closed in the exchanges only. #July 8th, 2013: Banks restricted from carrying out any proprietary trading in the currency futures / exchange traded currency options markets.

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Alternative Exchange Traded Platforms Emerging for Trading USDINR futures: With increasing commercial potential, today USDINR has been allowed by several regulators abroad, DGCX is a case in point. However, the advantage of longer trading hours and regulations abroad are making it attractive for participants from abroad.

Table#6: Turnover: Offshore Exchange Traded Platform for USD/INR (in USD Millions)

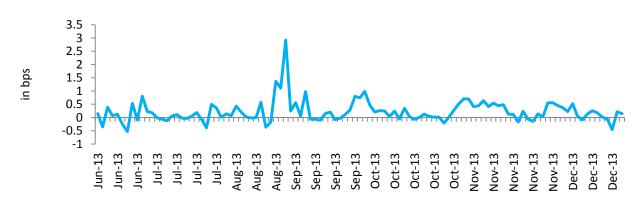
СҮ	Onshore ETMs	Offshore ETMs
2010	6837.51	86.39
2011	6742.69	469.04
2012	4690.5	1265.14
2013	4052.29	1747.15
CAGR	-16.0%	172.5%

Source: Bloomberg

Note: Onshore markets data considered till 23rd December 2013.

Onshore Vs Offshore Exchange Traded Currency Derivatives Segment. As the volumes in the offshore exchanges grew, the price gap between the offshore close and onshore OTC open has been narrowing indicating that the price signals from the offshore markets have an increasing influence in the onshore markets. Added to it, the latest <u>RBI study</u> indicates the increasing influence of NDF markets in signaling onshore currency markets.

Chart#5: Offshore ETM vs. Onshore OTC market (Close to Open Price Gap)



Source: Bloomberg; Note: Offshore ETM market considered is DGCX and Onshore OTC includes interbank and merchant transactions; Close to open Gap: Close is Offshore and Open is Onshore OTC, an average of 10 minutes trading

Volume Strengethened during Non-Indian Market Hours in Offshore ETMs for USD/INR: Volumes in the offshore ETMs during the non-Indian market hours have grown to a significant 40 percent of their daily volumes signifying the importance of economic information from the western markets.

Table#7: Strengthening Non-Indian Market Hours Volumes in Offshore ETMs for USD/INR

	Indian Timings	Non-Indian Timings
Average daily price volatility	0.00091	0.00165
Average daily volumes (in lots)	60%	40%
Spread	0.00031	0.00039

Source: Bloomberg; Data considered for the period June-Dec 2013; Note: Data range June-Dec 2013

Table#8: Comparative Study on USD/INR Contract Specifications:

Exchange	Open position limits	Tradin g Hrs.	Contract Size	Daily Price Limits
SGX	10,000 contracts	11:55	INR 2,000,000	Nil
ICE	<u>Spot Month</u> : 2,000 contracts; <u>Other months</u> : 10,000 contracts	9:00	INR 2,000,000	NA
CME	Position Accountability trigger level: 6, 000 contracts Position Limit in the spot month on or after the day one week prior to the termination of trading day: 20,000 contracts	11:00	Standard Futures: INR 5,000,000	NA
DGCX Future	<u>Banks</u> : 4,000 contracts <u>Other entities</u> : 10,000 contracts	15:00	<u>Standard Futures</u> : INR 5,000,000 <u>E-micro Futures</u> : INR 1,000,000	NA
DGCX Mini Future	<u>Banks</u> : 4,000 contracts <u>Other entities</u> : 10,000 contracts	15:00	INR 2,000,000	NA
MCX-SX	<u>Clients</u> : Lower of 6% of total open interest or USD 10 million <u>Trading</u> : Lower of 15% of the total open interest or USD 50 million <u>Trading Members Banks</u> : Lower of 15% of the total open interest or USD 100 million	8:00	INR 200,000	<u>Tenure up to 6</u> <u>months</u> : +/-3 % of base price <u>Tenure greater</u> <u>than 6 months</u> : +/- 5% of base price

MOOT POINT: With increasing spread of tools of information and communication technology, not only that information continued to be effectively converged into markets but also that participants have got an opportunity to converge them in real time fueling USDINR trading in the offshore markets that operate during extended hours. With increasing capital flows across the borders, it has become inevitable to strengthen the onshore markets for USDINR to enable stakeholders discover the exchange rates after effectively balancing it for domestic and global fundamentals.

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