

**US FED RATE HIKE**  
**TIMING, IMPLICATIONS, HANGOVER**

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**Abstract**

This purpose of this paper is to understand the implications of a US Federal Rate Hike in general and specifically on India. The monetary policies have huge impact not only on the domestic market but also affects the other economies that have trading relations with the concerned nation. This paper will help in clearly understanding the effects of the US Federal Rate Hike , what other things get affected and how India has handled these over the times.

## Introduction

Post the Financial Crisis in 2008, the US and other Advanced Economies of the world faced an economic slump beginning with an almost near collapse of the banking systems. As profits tumbled across industries, unemployment rose and falls in consumption and investment brought global growth to almost a standstill accompanied by dangerously low inflation. In response to this economic gloom, major central banks across the world took it upon themselves to bring these big economies back on their feet. Central Banks in the hopes of boosting the economy adopted an accommodative stance by lowering interest rates to near-zero levels. The expectation was that low interest-rate scenario would provide ground for pick-up in the investment and consumption cycle as the economy progressed towards full employment and households experienced wage growth.

However, this step did not yield expected results and we witnessed the beginning of the QE series. The combined impact of these two steps has managed to achieve one of the intended objectives of achieving optimum employment while the other objective of targeting inflation has not worked out that well largely due to unexpected developments in crude prices. This is however not likely to be a major detractor from the Fed's monetary policy action course.

The actions taken by the Federal Reserve Bank took time to achieve the intended objectives of growth and employment but seven years down the line, the scenario looks a lot brighter. Not only did these steps help in bringing the economy back on track by keeping rates low across the curve but also helped the emerging markets to benefit from foreign inflows. EMs have been attracting foreign inflows across asset classes because of the higher yields on offer compared to the developed economies. Also, chronic problems in the Eurozone and recovery niggles in the US have aided fund flows into the EMs. The Indian economy, as well, benefitted from this interest with significant inflows observed in each of CY 2010, 2011 and 2012. Total Debt inflows during this period totaled around INR 1.2tn. The momentum sustained as long as cheap funds were available and QE continued. News of tapering in 2013 however reversed investor sentiments as money flowed out of EMs and India bore the brunt of weak macros on both internal and external fronts. However, as the effect of tapering tapered off and elections brought about an improvement in macros, investor sentiment swayed again in favor of India with FII inflow in debt segment totaling INR 1.7tn in FY15.

The next event that has markets on the edge and can induce significant volatility in EMs is the Fed starting on its rate-hike cycle. Markets have been trying to anticipate the date of lift-off but the Fed has been patient in its approach towards a hawkish stance. However, with the labor market showing significant improvement, it seems ever more likely that the Fed will act on rates this year. However, the pace at which subsequent hikes will be made is likely to be gradual. This is likely to have an impact on inflows into EMs.

This report touches upon probably the three most important issues pertaining to the Fed-Rate Hike cycle:

- Overview of past Fed rate hike cycles
- Expected Time of the Fed raising rates
- Expected Implications for India
- Expected Longevity of Impact

## Summary

The commentary of the US Fed at the June 2015 monetary policy meet did not change much from the previous monetary policy statement. The Fed reiterated that an increase in Fed funds rate would be determined by further improvement in the labor market and a gradual rise in inflation toward 2% in the medium term. But, the rate action by the Fed would be data-dependent. On balance, while a rate hike in 2015 is pretty much on the cards, the weak inflation and labor market outlook could defer the lift-off towards December 2015.

As the US Fed embarks upon the monetary policy normalization after keeping it accommodative with Federal Funds rate near zero for a prolonged period of time, India is expected to sail through the impact of policy normalization by the Fed. The improved and improving macroeconomic fundamentals and continued efforts of the government to push through reforms bode well for India. Compared with other EMs, India is expected to outperform on the economic barometer.

We do not foresee a significant impact on India from the likely normalization in the US Federal funds rate later this year. India is well poised and fundamentally well placed to absorb any shocks emanating from Federal Reserve's first rate hike after June 2006. Besides, we expect the US Fed's rate tightening cycle to be a gradual one, unlike the one seen in 1994-95 which took market participants by a surprise – both on the aggressiveness and the timing of the monetary tightening.

Given the gradual and steady pickup in employment and a fall in jobless claims, the US Fed is expected to take a balanced approach and not tighten the strings as aggressively as it did in the previous cycles.

Divergent monetary policies within the G-4: The G-4 countries would pursue divergent monetary policies in the milieu of evolving macroeconomic dynamics in their respective countries. On one hand, the US Fed is expected to normalize interest rates around mid- 2015. On the other hand, the European Central Bank (ECB) and the Bank of Japan (BoJ) would continue with their accommodative monetary policy stance by way of quantitative easing (QE).

Implications of divergent monetary policies and interest rate reversal by the US Fed on India look limited barring knee jerk market volatility. India, since January 2014, has remained in the top three beneficiaries of capital inflows and we expect India to continue to be an outlier amongst the EMs - given the strong political mandate, the intent and the belief in federalism and a free-market economy as reflected in the spate of reforms announced by the government, the improving macroeconomic fundamentals especially an improvement in current account deficit (CAD), fiscal deficit and inflation. Most of the EMs, including India, have eased their monetary policy in the wake of falling inflation. The RBI has reduced policy rates by a cumulative 75bps to 7.25% in 1H CY15 already. The frontloading of these rate cuts would in turn reduce the volatility and sudden outflows from India.

## Overview of Fed cycles since 1994

Over almost 20 years, three different tightening cycles have taken place. The federal funds rate rose by an average of 3.0% in those cycles and lasted for approximately one year; the only exception was the 2004 tightening cycle which lasted longer. It is worth noting that while each tightening cycle has been driven by different factors, historical observation may provide guidance on what to expect when rates eventually tread higher. As the old adage goes, history doesn't repeat itself, but it often rhymes.

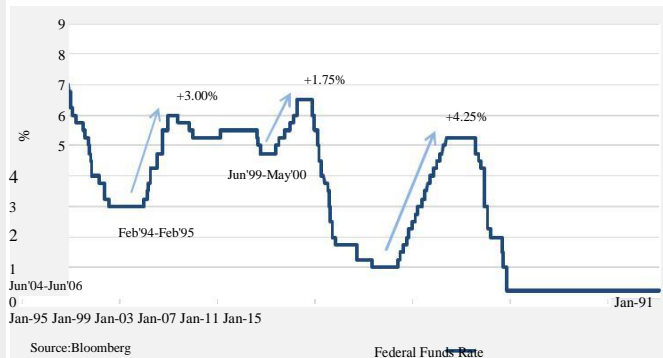
Since 1990, the steepest rise in the federal funds rate occurred during 1994-95, when the US Fed hiked interest rates by 3.0% in a span of 12-months; negatively surprising the markets.

The 2004-06 tightening lasted longer with gradual increase in rates. Besides, transparency by the US Fed and communication had somewhat prepared the markets for the rate hikes.

Timing and magnitude of Fed rate hikes

| Start-date | End-date  | Total Rate Increase | Duration in months |
|------------|-----------|---------------------|--------------------|
| 4-Feb-94   | 1-Feb-95  | 3.00%               | 12                 |
| 30-Jun-99  | 16-May-00 | 1.75%               | 11                 |
| 30-Jun-04  | 29-Jun-06 | 4.25%               | 24                 |

Fed cycles



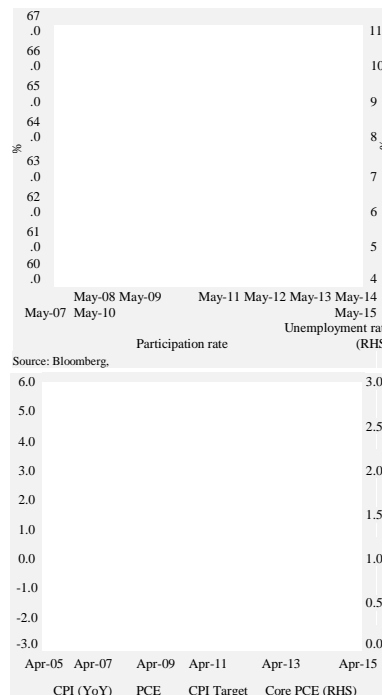
Why is the Fed likely to raise rates soon?

The strengthening of the labor market as indicated by falling unemployment and also a pick-up in non-farm payrolls are likely to be the two key factors that would navigate the US Fed’s monetary policy stance. A hike in the FFR would indicate that the US economy is picking up and the overall macroeconomic environment is growth supportive.

Besides, it is also likely that the US Fed’s decision to hike rates would be to take a pre-emptive approach on the inflation front and choosing not to react to rising inflationary pressures later on as growth momentum picks-up.

Labor markets show a sustained improvement. The unemployment rate has been dropping, albeit gradually and continues to remain sticky. Indicators like the labor participation rate, non-farm payrolls, jobless claims, too, continue to show an improvement. The participation rate is now trailing above the unemployment rate, after coinciding in Dec’13; indicating improved employment conditions and job prospects.

Inflation in the US continues to run below the US Fed’s 2.0% long-term inflation target; one of the reasons being softer crude oil and other commodity prices. However, the Fed considers these to be transitory in nature and as the impact of softer commodity prices dissipates inflation is expected to move towards its long term mandate of 2%.



Unemployment rate and inflation

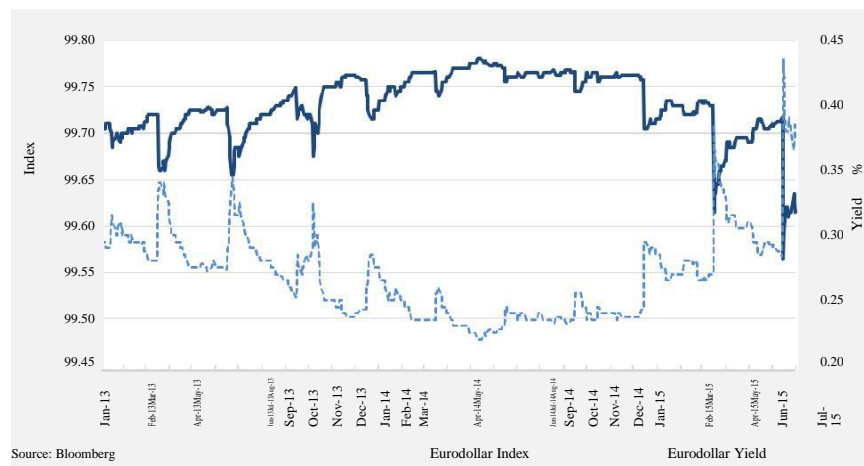


## When will the Fed actually raise rates?

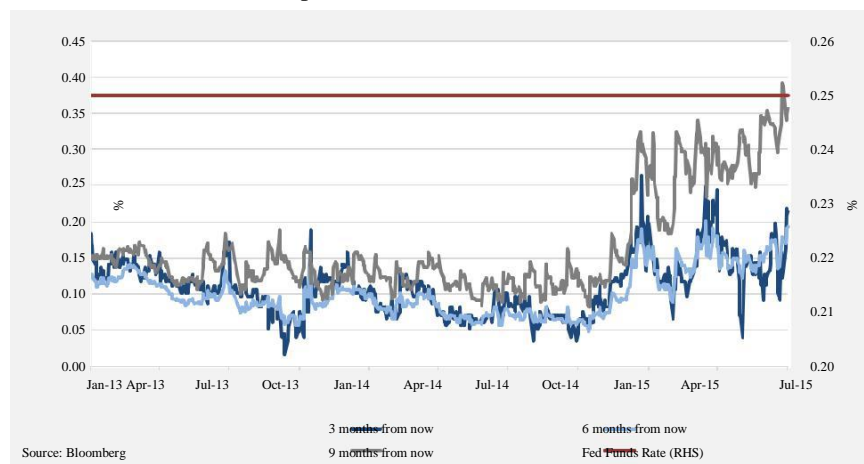
The Fed has kept the Funds Rate in the range of 0% to 0.25% since December 2008. After the FOMC meeting in January 2015, it is clear that the economic growth is picking up albeit at a modest pace. Labor market conditions have improved further, with strong job gains and a lower unemployment rate. Household spending is rising moderately and declines in energy prices have boosted household purchasing power. However, inflation targeting has not worked out well largely due to a sharp dip in oil prices. This is not a cause of worry for the Fed as it does not consider the dip in oil prices to be a major threat to its inflation target over the long-term. This suggests that United States economy is firmly set on the recovery path. Our prediction is that the Fed Funds Rate will most likely be hiked in the month of Sep'15.

The prediction is based on movement of 3M Eurodollar futures since 1995. Apart from the correlation between the Eurodollar Futures and Fed Funds Rate which comes to an almost perfect negative correlation, it can also be observed that the Futures forerun the action of the Fed from 1996 onward (around the time when the FOMC became more transparent in conveying its rationale). There have been three rate-hike and three rate-cut cycles post 1996. Eurodollar futures have been charting a southward trajectory since Dec'14 and comparable historical data points in which the lag between the initial movement in Eurodollar future and Fed Rate action is more than 120 days goes on to show that in such cases, the Eurodollar leads Fed rate action by an average of 223 days (~7 months). The significant slide in the Future contracts in the month of March puts the possible time of the rate-hike at Sep'15.

Eurodollar futures and the federal funds rate



Forward rates indicate a September lift-off



The 3M forward curves derived from the 3M, 6M and 12M spot T-Bill rates indicate the same timeline for the Fed embarking on its rate-hike cycle. The three 3M forward rate curves (3\*3, 6\*3, 9\*3) spike and stay elevated post September crossing which highlights the perception of increase in rates later this year. The Implied 3M Forward T-Bill curves are strong indicators of the rate cycle as investors demand higher yield in anticipation of the expected Fed's action and projections. Both the studies support the same finding of Sep'15 being the possible timeline of Fed rate lift-off

## Comparison with previous hiking cycles

The FOMC currently expects a slower pattern of tightening as evident in its June economic projections. Even as the debate over the timing and aggressiveness of the rate tightening cycle continues, it is expected to be a gradual exit from its unconventional ultra-low interest rate cycle. Also, the US Fed is expected to keep its balance sheet inflated and continue to re-invest in maturing assets even as it starts with the process of normalizing interest rates.

**Gradual exit:** Unlike the 1994-95 monetary tightening cycle, this rate hike cycle is expected to be a gradual one. The Fed took markets by surprise in the 1994-rate hike cycle - in terms of both the aggressiveness as well as the timing of the rate hike cycle; the sharp fall in the S&P 500 as well as the spurt in the yields reflect the impact of the sudden rate hike cycle. The 2004-06 cycle, on the other hand, did not take markets by surprise – neither on the magnitude nor on the timing of the rate hike.

### 2004-06 cycle and India:

Between 2004 and 2006, the Fed hiked rates from 1% (then a historic low) to 5.25%. As the US Fed tightening cycle ended, the Indian 10-year yield had spiked to ~8% from a low of ~5% in 2003. In a span of 12-months, starting June 2004 when the US Fed raised FFR, yields on Indian G-sec rose by about 170 bps to 7.0% from 5.2%. This was the period when the markets adjusted to the change in domestic and global monetary policy. In comparison to the 2001-03 period when rates came down in India and the US, rates were expected to rise in 2004 on account of increasing inflationary pressures. As a result, we saw a sharp repricing in the bond markets.

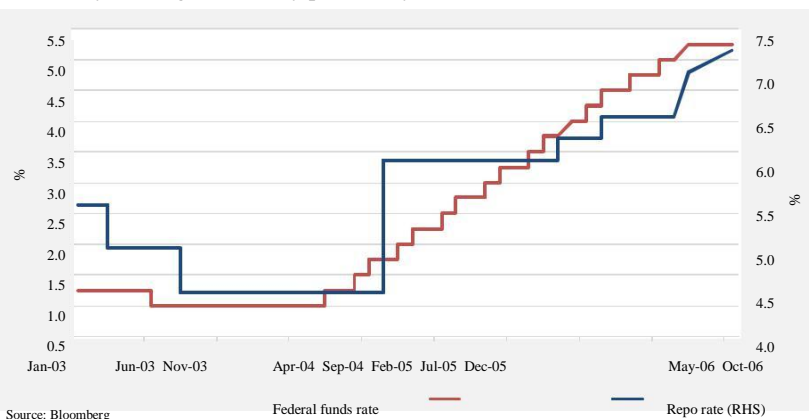
The period 2004-06 saw a convergence in monetary policy, globally, with many central banks raising key policy rates as the global economy was heating up. Specifically RBI and the Fed were hiking at the same time as inflation rose in both countries.

At present, we are facing very different monetary policy regimes wherein the monetary policies are diverging globally not only amongst the G-4 nations but also the G-20 nations. While the Fed is likely to increase rates in 2015, RBI has embarked upon monetary easing and lowered repo rate by a cumulative of 75bps in 1HCY15. Markets continue to fear that a fall in the yield differentials and tighter monetary policy by the US Fed could lead to outflows from India. However, we believe improved macros would limit the retreat in flows.

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2004-06 cycle - Tight monetary policies by India and the US





While the uncertainty over the timing of the first rate hike remains a key risk, not just to India but also to other EMs, India is expected to be preferred over other EMs in 2015 as well

- Notwithstanding the rate hikes of 2004-06, FII's continued to invest in India
- Also, back in 2004 at the start of the cycle, FFR was at 1% and Repo at 4.5%; implying a differential of ~350 bps. And towards the end of the tightening cycle in the US, the yield differential narrowed to ~125 bps
- Currently, the FFR is at the zero lower bound and Repo rate at 7.25%, yielding a differential of ~700bps which is much higher

### **The tumultuous episode of the taper tantrum**

During the “taper tantrum” period of May’13 to Jun’13 (whose impact on India started to dissipate post Sept’13), many emerging economies witnessed sharp depreciation in their currencies, bond spreads widened, capital flows reversed and volatility shot-up. While the initial reaction to the taper tantrum was indiscriminate outflow from EMs, however, after a period investors started to differentiate between economies especially those with stronger fundamentals. In this backdrop, a lift-off by the US Fed is unlikely to be uniform for all the EMs. When we take into consideration the most recent episode of the taper tantrum and its impact on EMs sovereign yields and currency, we believe that the implications remain broadly uniform albeit of varying magnitude.

The US Fed’s tightening cycle is expected to be tempered and also more predictable than previous cycles. The US Fed is likely to be mindful of possible disruptions to the financial markets worldwide. The Fed has repeatedly stated that it will raise rates, thus a rate hike in the near-term should not surprise markets. For the past several months, through the use of forward guidance, the Fed has been attempting to manage expectations of a first rate hike. As the US Fed wound down the QE-program, it used forward guidance to limit surprises and also manage market sentiments. The same process is being broadcasted for a rate increase, which should limit the overall potential damage to the financial markets, globally.

#### Impact of taper-talk on India and other EMs:

The chart alongside reflects that India and Indonesia were amongst the most impacted nations especially on the exchange rate front. India’s CAD burgeoned to an all-time high of 4.8% of GDP. The widening of the CAD along with weaker growth prospects and elevated inflation, policy paralysis led to a pullback in capital flows with a retrenchment of USD7.5bn in the period May’13-Sept’13. These unfavorable developments increased India’s vulnerability to the taper-talk which had a catastrophic impact on the financial markets.

The fragile five countries namely, Brazil, India, Indonesia, South Africa, and Turkey saw a steep decline in their exchange rates owing to large CAD and weak fundamentals. In the period May’13-Dec’13, investors focus

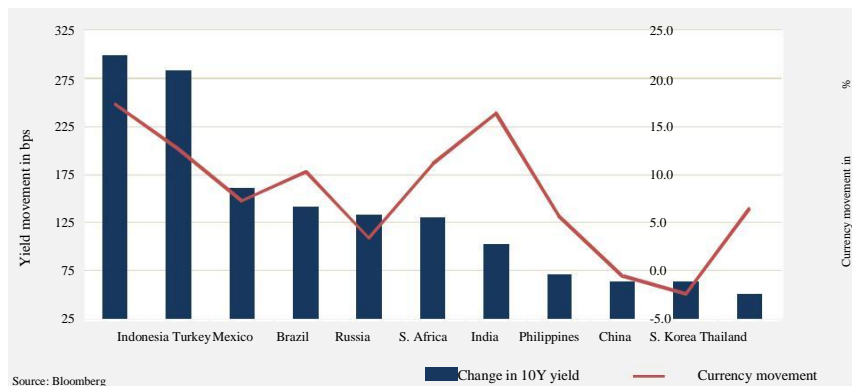
shifted to markets with better economic fundamentals.

As a consequence of large CAD and capital outflows India’s FX reserves were depleted. This in turn exacerbated concerns over India’s economic fundamentals.

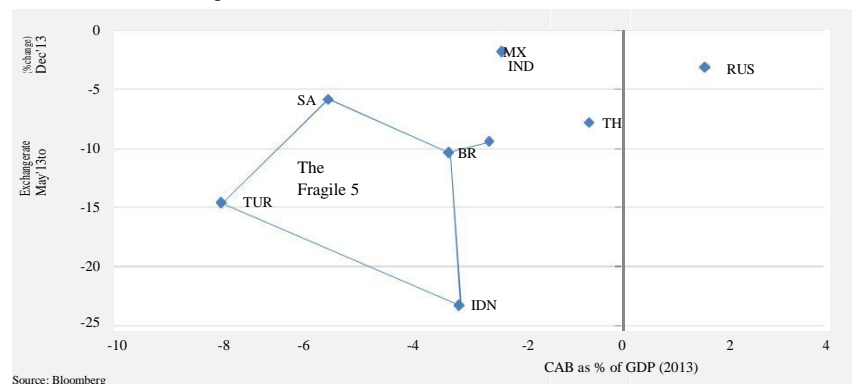
Note: Considered the period May’13 to Sep’13 only and not upto Dec’13 as India opted for unconventional measures (like restrictions on gold imports, FCNR(B) deposits and swap arrangements with OMCs) in order to strengthen its economic fundamentals and restore investor confidence in the economy.



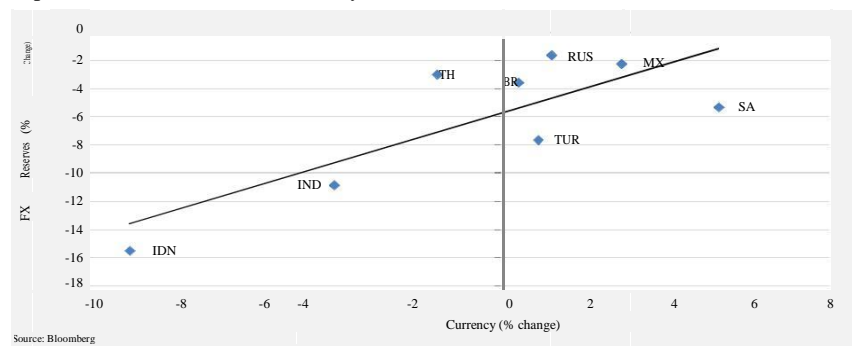
### Currency and yield movements during the episode



### The Then-Called Fragile-5



### Impact on FX reserves and currency



## How will EMs react to and cope with a Fed rate hike?

The investors are likely to differentiate between the economies based on their fundamentals. Thus, economies with relatively stronger fundamentals can weather the storm and the economies with weaker macros would see some tension on their external balance sheet, on account of higher outflows. Thus, making it imperative for economies to undertake measures to strengthen their economic fundamentals and take necessary reforms to remove structural impediments.

Besides, to attract inflows, the EMs will have to continue to take policy measures to prop-up growth and unclog structural imbalances while at the same time maintaining higher real rates and thus yield differentials.

Investors would focus on some key macroeconomic variables like the evolving growth-inflation dynamics, CAD and the financing of the CAD. The investors are likely to discriminate between economies based on their external vulnerability. Higher vulnerability could lead to higher outflows. The two economies that stand to benefit are India and Indonesia. Each of these economies got a political mandate in 2014, took measures to narrow CAD and also undertook measures to move-away from administered pricing. Also, Indonesia and India tightened monetary policy with the objective to combat inflation and arrest the sharp depreciation in the exchange rate. Inflows returned to India on the back of higher yield differentials coupled with stable currency (post the taper tantrum) and shrinking CAD. The combination of these "pull" (domestic) factors and "push" (external) factors increased foreign inflows.

### India is likely to be more resilient to shocks, if any, compared to the recent taper tantrum episode:

During Q3FY13 and 1HFY14, India saw a sharp deterioration on its external account, mainly the balance of payments (BoP) as merchandise deficit widened. The deficit widened considerably on account of higher imports and lower exports. The impact accentuated, later on, due to a sell-off in equity and bonds on Bernanke's speech of ending the monthly asset purchase program. The talks of withdrawing the QE-3 programme had a catastrophic impact on the currency and financial markets. However, some conventional and unconventional measures by the RBI and curbs on gold imports by the government improved the BoP situation for India from Q4FY14 onwards. India, now, is well positioned on its BoP front compared to its peers. CAD also remains well-contained. Besides, the financing aspect of it, too, looks comfortable as capital flows have strengthened and are likely to remain robust through FY16 largely because of the attempts by the ECB and the BoJ to fight off deflationary pressures and target their long-term objective of 2.0% inflation through asset purchases and targeted liquidity infusion.

### Many EMs continue to run high CAD; India better positioned

| Year/Country | 2007 | 2008 | 2009 | 2010 | 2011 | 2012 | 2013 | 2014E | 2015E | 2016E |
|--------------|------|------|------|------|------|------|------|-------|-------|-------|
| Brazil       | 0.1  | -1.7 | -1.5 | -2.1 | -2.0 | -2.2 | -3.4 | -3.9  | -3.7  | -3.4  |
| India        | -1.3 | -2.3 | -2.8 | -2.8 | -4.2 | -4.8 | -1.7 | -1.4  | -1.3  | -1.6  |
| China        | 10.1 | 9.2  | 4.8  | 4.0  | 1.9  | 2.6  | 1.9  | 2.0   | 3.2   | 3.2   |
| South Africa | -5.4 | -5.5 | -2.7 | -1.5 | -2.2 | -5.0 | -5.8 | -5.4  | -4.6  | -4.7  |
| Indonesia    | 1.4  | 0.0  | 1.8  | 0.7  | 0.2  | -2.7 | -3.2 | -3.0  | -3.0  | -2.9  |
| Malaysia     | 15.4 | 17.1 | 15.5 | 10.9 | 11.6 | 5.8  | 4.0  | 4.6   | 2.1   | 1.4   |
| Mexico       | -1.4 | -1.8 | -0.9 | -0.5 | -1.1 | -1.3 | -2.4 | -2.1  | -2.2  | -2.2  |
| Philippines  | 5.4  | 0.1  | 5.0  | 3.6  | 2.5  | 2.8  | 4.2  | 4.4   | 5.5   | 5.0   |
| Thailand     | 6.3  | 0.8  | 8.3  | 3.1  | 2.6  | -0.4 | -0.6 | 3.8   | 4.4   | 2.4   |
| Turkey       | -5.8 | -5.5 | -2.0 | -6.2 | -9.7 | -6.2 | -7.9 | -5.7  | -4.2  | -4.8  |

Source: WEO, IMF

## External Financing

Since India's capital account is not fully convertible and with less reliance on foreign funding, the external debt ratio to GDP is much more superior compared to the other EMs. This in turn has reduced India's vulnerability to external shocks. India's external debt-GDP ratio stands at 22.5% much lower than that compared to other EMs. For instance, Turkey's external debt to GDP stands at ~50.0%. Also, given that India mopped up higher foreign exchange reserves compared to that of other EMs and an improvement in its BoP on falling merchandise deficit has put India in a favorable spot over many other EMs. The fall in imports, for India, was due to the confluence of factors like - restrictions on gold imports, benign international commodity prices and an overall slowdown in imports (as capital investment slumped). Consequently, the import cover ratio for India improved significantly and can meet its import requirements of nearly 8-months as of 2014 which is better placed than Turkey, Indonesia and South Africa. Even as the ratio of reserves to imports remains well below the peak of ~11-months seen during 2007, savings from oil imports and a sustained increase in FX reserves could push the ratio higher in the near-term.

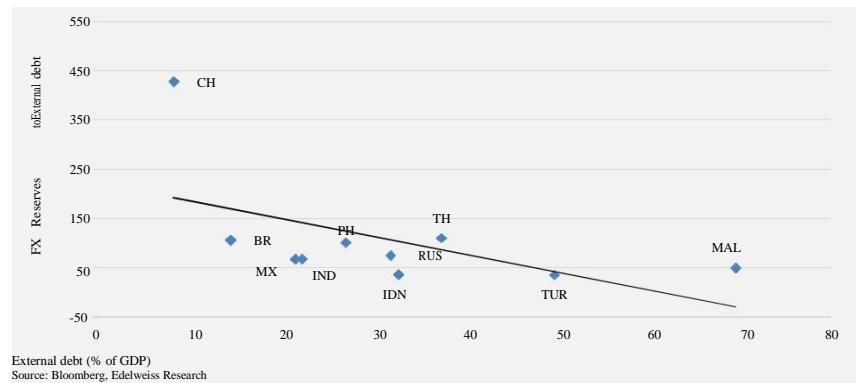
India's CAD as % of GDP improved to 1.4% of GDP in 2014-15 much lower than the other EMs which continued to run large current account deficits. The external debt data, too, shows that India continues to be among the less vulnerable countries. India's key debt indicators compare well with other indebted developing countries. Besides, the ratio of FX reserves to total external debt stock indicates that India is less susceptible to shocks compared to other EMs. The higher the ratio, the lesser vulnerable is the economy to external shocks. The recent accumulation in FX reserves has improved India's ability to absorb external shocks.

Large external financing needs for some EMs; but not the case for India:

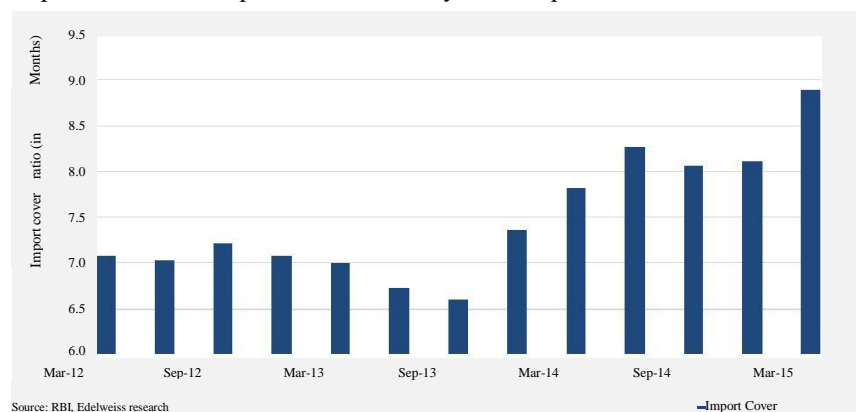
The shrinking CAD and the surging capital inflows have increased India's BoP surplus to an all-time high of USD 61.4bn (3.0% of GDP) in FY15. The confluence of factors like benign commodity prices (lower oil import bill), slump in domestic investments (lower capital goods imports) and robust inflows led to an increase in the FX reserves.

FX reserves as of end-Mar'15 increased to USD 341bn which in turn improved the import cover ratio to 8.9 months from 8.1 months as of Dec'14. From end-Mar'15, FX reserves have increased further by ~USD 14bn to USD 355bn as of mid-Jun'15.

External debt lower vis-à-vis other EMs



Import cover ratio improved considerably since Sep'13



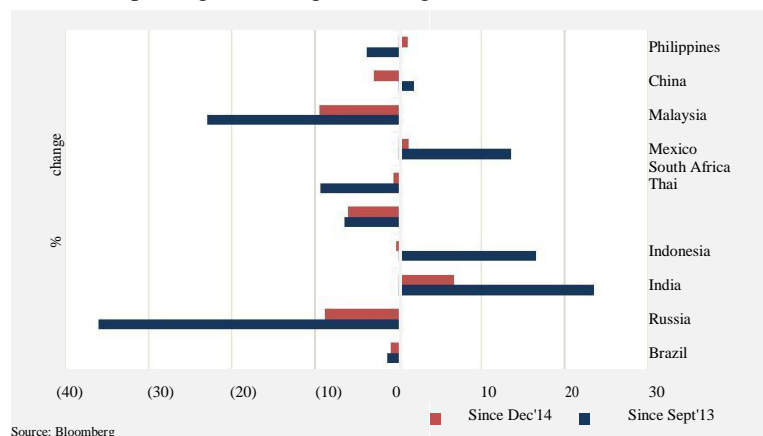
## FX reserves - how much is enough?

Foreign exchange reserves tend to have a central place in the policy making for most economies. Basically, it's held to engender confidence in the national currency, support the conduct of monetary policy, build assets for future, or influence the exchange rate. As per the IMF median estimate, a country should hold reserves to meet three months of its imports.

However, the most recent jitters felt in Jun'13 indicate that a sudden outflow from an economy could deplete reserves at a faster rate especially if those economies have a high CAD coupled with large external financing needs. The consequence of these is reflected in the depreciation of the currency vis-à-vis the USD. During the taper-tantrum, like many other EM currencies Indian Rupee also depreciated albeit at a faster rate (since India was running a huge CAD of ~4.8% of GDP). The INR depreciated sharply by 16% against the USD, second after Indonesian Rupiah which depreciated ~17% in the same period. Thus, economies with weak macroeconomic fundamentals such as - large external deficits, high inflation and weak growth – were exposed to greater external volatility. These economies were then classified as the fragile five - Brazil, Indonesia, India, South Africa and Turkey.

India accrued highest level of reserves since Mar'14; surging to all-time high of USD 341bn. This was much higher than that garnered by other EM economies in the 12-months ending Mar'15. Most EMs, even China, have seen a drop in FX reserves since Mar'14. India, however, accrued higher reserves notwithstanding a stronger USD.

India recouped highest foreign exchange reserves



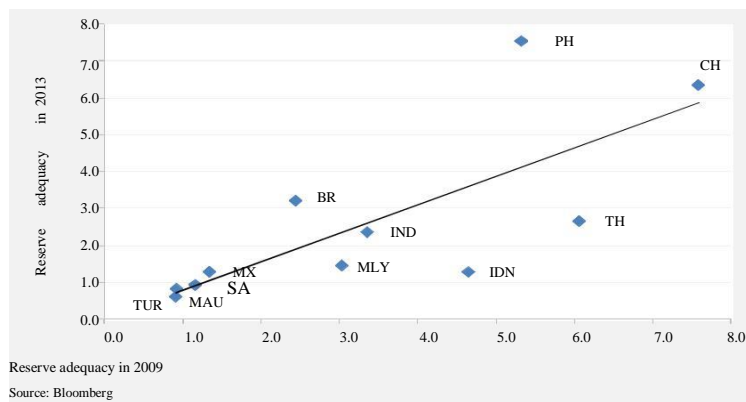
## Reserve Adequacy Ratio

We have used a ratio, namely, the reserve coverage ratio so as to gauge EMs reserve adequacy and thus India's ability to react to the ever increasing external volatility and shocks. The threshold level for the reserve adequacy ratio stands at 1 and India is placed better with the ratio at 2.38 in 2013 and in fact has improved considerably since then as short-term debt and current account deficit reduced. A spurt in FX reserves, too, improved the ratio further to 2.83 in 2014. In comparison to other EM nations, it shows that India is better positioned to absorb volatility arising from the US Fed's exit policy. A number of countries with a low reserve coverage ratio (based on FX reserve holdings at the end of 2013) and large external financing needs for 2015 are likely to be more vulnerable to periods of stress. Higher short-term debt as well as current account deficit vis-à-vis their FX reserve holdings would make these economies susceptible to global volatility. The most vulnerable countries to such risks are South Africa, Indonesia and Turkey.

The reserve adequacy ratio deteriorated in 2013-14 compared to 2009-10. A reversal in capital flows during FY14 put a strain on FX reserves. The burgeoning CAD for nearly three consecutive years continued to eat into the FX reserves, notwithstanding robust capital inflows.

Based on this ratio, the economies that seem susceptible to external shocks are South Africa, Indonesia and Turkey. Their reserve adequacy ratio in 2013 depleted compared to 2009.

### EMs Reserve Adequacy Ratio



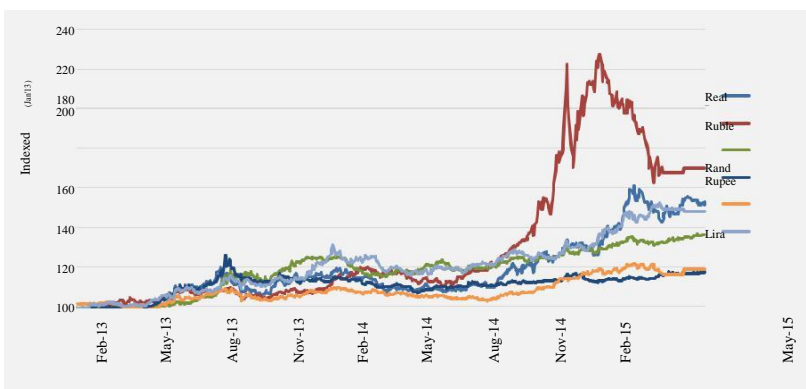
### Currency

While many of the central banks of the EMs came to the rescue of their domestic currencies, volatility and capital outflows on US Fed's rollback led to a catastrophic fall in many of the EM currencies. Unlike the Indian Rupee, other currencies like the Brazilian Real, Mexican Peso, Indonesian Rupiah and the Malaysian Ringgit and the Russian Ruble continue to face volatility in the currency markets. This can be attributed to national politics and other domestic structural impediments. The INR has remained stable in the range of 63.5-64 since Jan'15, unlike other EMs that have depreciated against the USD. Besides, the diverging monetary policies of the AE's (i.e., the G-4: the US, the UK, the Euro-area and Japan) have led to the strengthening of the DXY which in turn has put downward pressure on the EM currencies and weakened it further.

However, the INR has been more resilient to the USD over the last 6 months unlike other EM currencies viz. the Real, Rand, Ruble, Lira, Rupiah and the Peso. The stability in the currency (and yield differentials) has given an opportunity for carry trade. Going forward, the DXY could strengthen further as the ECB and the BoJ are likely to continue easing in the foreseeable future- at least for the next 12 months - which in turn is likely to keep the Euro and the Yen on a depreciating trend. This could strengthen the DXY further.

The INR has remained fairly resilient to external developments since Jan'14 vis-à-vis other EM currencies on improved economic fundamentals. The Rupee depreciated only marginally by 0.7% since Jan'15 as compared to other EM currencies which depreciated well over 1% over the same period.

### INR remains stable vis-à-vis other EMs



## Recent Yield Trajectory

EM bonds have gained significantly since the beginning of 2014, as carry has remained attractive against most AE bonds. The yield differential between the 10-year sovereigns of the US and India continued to attract investors interest in Indian G-sec. The stability in the currency also contributed in attracting inflows into the debt segment. Inflows in equities, too, continued albeit at a modest pace. However, the recent remarks from Fed Chair Janet Yellen about the high valuations in equities and narrow risk spreads in credit markets served to underscore persistent concerns about liquidity-fueled asset prices and the buildup of long positions. Her comments fed into the selling pressure in the bond markets globally.

Since then, yields on the US 10 yr and German Bund have moved up considerably from the levels seen in the month of April. The U.S. 10yr bond yields saw a cumulative increase of 54bps in June from April lows followed by a sharp and more striking correction of 77 bps in 10yr German Bund yields over the same period. Clearly the modest rebound in inflation expectations in Europe and the US - and higher oil prices have put upward pressure on yields.

The yields on Indian G-sec reacted to global cues and weakened by ~25bps around mid-May compared to start of Apr'15; however soon followed domestic factors like the rate cut and policy guidance which brought back focus on domestic triggers. The biggest concern for the EMs, from the tighter US monetary policy stance, would arise from risk-off trades resulting in reallocation of funds to the US and away from riskier EM assets. Such a reallocation could increase volatility for the EMs in the short-term. However, the economies with stronger fundamentals are likely to sail through the external headwinds.

During the taper-tantrum, the investors differentiated between the more vulnerable countries mainly those with wide CAD and with more manageable external positions. Going forward, too, the investors are likely to take a discerning approach on markets as they focus on markets with relatively better fundamentals.

India, clearly, is one of those economies which seem to be less susceptible to external shocks. Besides, a mitigating factor (compared to 2013) is that the ECB and the BoJ would continue with quantitative easing. The divergent monetary policies of the G-4 nations would continue to provide liquidity into the markets even as the US Fed begins to normalize monetary policy.

### India macros markedly improved compared to the taper tantrum period

In a span of 24-months, India has come a long way when it comes to its economic fundamentals. After having learnt the hard way in Jun'13, the tumultuous period when the world first got a hint of the beginning of the end of the QE-3 program, the investors focused on markets with better fundamentals and preferred to exit the then fragile five economies. The unconventional measures undertaken by the RBI - increase in Repo rate, higher MSF rate, higher interest rates on NRI deposits mainly FCNR (B), swap agreement with the OMC's and restrictions on gold imports arrested the depreciation in the currency and as concerns over the QE-3 tapering abated, India was back up on its feet. The collective efforts of the RBI and the govt. led to an improvement in India's external position and also enabled the RBI to mop-up FX reserves which had depleted at a faster rate on external financing concerns. Also, the efforts of the govt. to reduce the fiscal deficit and deregulate diesel prices aided in improving India's domestic financing and recouped investors confidence in the economy.

For instance, in 2004, the RBI embarked upon a tighter monetary policy on increased inflationary pressures. The average WPI inflation shot up to ~5.5% YoY from 3.4% in FY03. In contrast, both WPI and CPI (consumer price index) inflation have fallen since 2014 (when RBI adopted flexible inflation targeting). The

anticipation is that the rate hike by the Fed this year could exert upward pressure on Indian yields. However, it is worth noting that the situation this time around is very different from that seen exactly a decade ago.

The interest rate differentials are much higher now and the direction of monetary policy of the US Fed and RBI are likely to diverge. We believe that over time the bond market will respond more to the announcements made by the RBI and domestic macroeconomic fundamentals. We reiterate that the RBI could lower the Repo rate by another 25bps in 2015 with the underlying assumptions being that crude prices remain stable and monsoon does not significantly deviate from its long period average. A rate cut, in response to lower inflation, would thus have greater influence on the movement in Indian gilts than global factors.



**India to retain attractiveness as in investment destination**

India attractive investment destination:

The combination of "pull" (domestic) factors and "push" (external) factors increased foreign inflows in 2014. The pull factors being - a significant improvement in India's external position, easing inflation, expectations of growth picking up and continued efforts by the govt. on passing through key bills in the lower house of the Parliament.

Another pull factor is the improvement in real interest rates - which for some EMs has been either on account of easing inflation or higher nominal interest rates. Among the major emerging economies Brazil and China have high real interest rates with India's real interest rates edging higher due to falling inflation. The positive real rates would make India's debt segment lucrative for foreign investors as inflation continues to ease and nominal rates likely to be cut further by 25bps in CY2015; provided monsoon is not significantly below IMD's estimate of (-12.0)% in 2015. After reducing rates by 75bps in 1HCY15, foreign investors could benefit from an appreciation in the value of the portfolio from easing inflation and lower nominal rates.

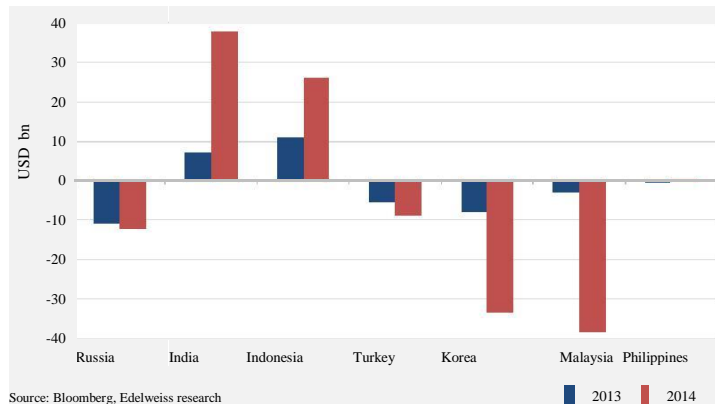
Recently, one of the factors that led to capital outflow was the uncertainty surrounding the Minimum Alternate Tax (MAT) on capital gains of foreign portfolio investors. Some of the push factors, on the other hand, have been re-allocation of funds and a better carry opportunity elsewhere.

A Spike in US 10-Yr & German Bund, since May'15, triggered the recent sell-off in bonds, globally: EM portfolio inflows weakened sharply to USD 4.2bn in Jun'15. EM equity markets accounted for all of the net inflows in May, while debt flows remained flat. Debt inflows dipped on the back of negative sentiment as yields spiked in developed economies.

Source: Bloomberg

— US 10-yr — German Bund 10-yr

Foreign portfolio investments higher for India

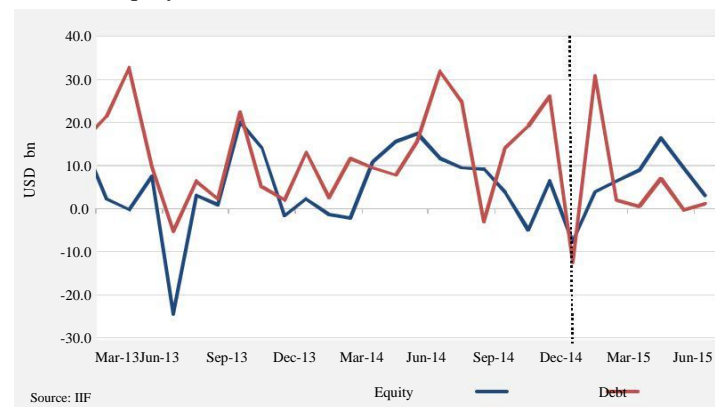


Source: Bloomberg, Edelweiss research

Nominal and real central bank policy rates (Average last 12-Months)

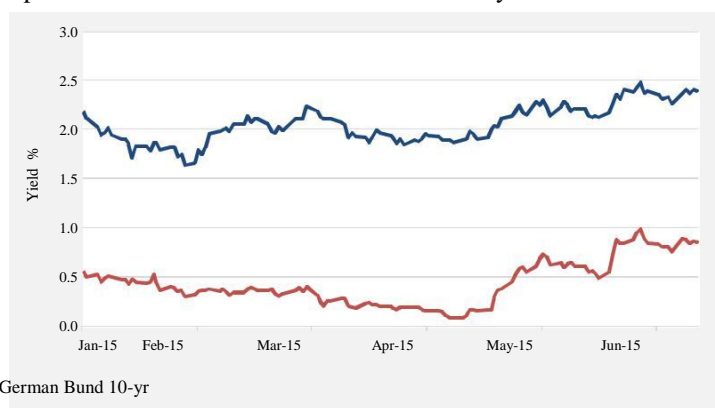
| Countries | Nominal Int rate | CPI rate | Real Int rate |
|-----------|------------------|----------|---------------|
| Brazil    | 11.7             | 6.8      | 4.9           |
| Russia    | 10.3             | 11.0     | -0.7          |
| India     | 7.9              | 6.0      | 1.9           |
| China     | 5.8              | 2.0      | 3.8           |
| SA        | 5.7              | 5.6      | 0.1           |
| Turkey    | 8.8              | 8.6      | 0.2           |
| Mexico    | 3.0              | 3.7      | -0.7          |
| Malaysia  | 2.5              | 3.2      | -0.7          |
| Indonesia | 7.6              | 6.1      | 1.5           |

Debt and equity flows to EMs



Source: IIF

Spike in US 10-Yr & German Bund since May'15



## India - the place to be

We expect India to do relatively better than many other emerging economies. India's macroeconomic fundamentals have improved considerably post the period of the taper tantrum vis-a-vis its peers.

A strong political mandate (May 2014) and the intent to fasten the pace of reforms, a framework and agreement between the govt. and the RBI on flexible inflation targeting led to an upgrade in the economic outlook from negative to stable by S&P and Fitch and Moody's too. Furthermore, a sharp correction in global commodity prices mainly crude prices would benefit India in a significant way as the oil import bill would drop substantially and lead to huge external savings. This would in turn reduce the CAD and hence the external financing needs of the economy.

## External position: a recap

CAD to GDP ratio: India's CAD/GDP ratio has improved significantly to 0.2% of GDP in Q4FY15 after touching alarming levels of ~6.8% of GDP in 3QFY13. The improvement in CAD came largely on account of restrictions imposed on gold imports and a slowdown in non-oil and non-gold imports mainly capital goods with positive spillovers from softer international commodity prices mainly crude oil.

We believe that India's CAD is unlikely to worsen and breach the comfort levels of 2.5% of GDP in FY16 and FY17. In the milieu of benign commodity prices, mainly crude oil prices, the CAD is expected to remain contained in the ensuing years. However, the key risks to our projection would be weak export growth because of weak external demand in the backdrop of fragile global economic recovery and a sharp reversal in international commodity prices.

India's CAD is expected to improve further to ~1.0% of GDP in FY16 lower than 1.4% of GDP recorded for FY15. The CAD could fall further if crude oil prices stay at the levels of USD 65/bbl through FY16 which could potentially lower the CAD by ~0.3% of GDP. Generally, a USD10/bbl drop in crude oil prices improves CAD by around USD8-10bn.

Financing of the CAD is unlikely to be a problem in FY16 as the CAD remains well contained. Besides, a likely deficit of USD 12bn can easily be financed by FDI inflows without relying on hot money inflows.

Capital account surplus was bolstered by record foreign inflows both direct and portfolio investment.

Consequently, the BoP surplus could remain in the range of USD 56-62bn in FY16 (depending on the savings from oil imports) compared to USD 61bn recorded in FY15.

## FY16 BoP projections: Scenario Analysis

| USD bn                                  | Oil @ 65 |         | Oil @ 70 |         |
|---|----------|---------|----------|---------|
|   | FY16E    | FY16E   | FY15     | FY14    |
| <b>A. Current account deficit (CAD)</b> | (12.1)   | (18.6)  | (26.2)   | (31.1)  |
| CAD as % of GDP                         | (0.6)    | (0.9)   | (1.4)    | (1.7)   |
| Trade balance                           | (130.7)  | (137.1) | (144.2)  | (147.6) |
| Exports                                 | 319.3    | 319.3   | 316.7    | 318.6   |
| Imports                                 | 450.0    | 456.4   | 460.9    | 466.2   |
| Invisibles, net                         | 118.5    | 118.5   | 116.2    | 115.2   |
| of which:                               |          |         |          |         |
| Software service earnings               | 80.0     | 80.0    | 70.4     | 67.0    |
| Private transfers                       | 67.6     | 67.6    | 65.5     | 65.3    |
| <b>B. Capital account</b>               | 74.6     | 74.6    | 90.0     | 48.8    |
| of which:                               |          |         |          |         |
| FDI                                     | 34.9     | 34.9    | 32.6     | 21.6    |
| Portfolio investments                   | 25.4     | 25.4    | 40.9     | 40.9    |
| ECB                                     | 3.0      | 3.0     | 2.7      | 11.8    |
| Short-term trade credit                 | 0.7      | 0.7     | (0.9)    | (5.0)   |
| Banking Capital                         | 10.6     | 10.6    | 11.6     | 25.4    |
| of which NRI deposit                    | 13.1     | 13.1    | 14.1     | 38.9    |
| <b>C. Errors &amp; Omissions</b>        | -        | -       | (0.6)    | (0.9)   |
| <b>Change in reserves (A+B+C)</b>       | 62.4     | 56.0    | 61.4     | 15.5    |
| USD/INR spot rate                       | 64.5     | 64.5    | 61.2     | 60.5    |

Source: RBI, CSO, Bloomberg

### **Duration of Impact**

The Fed guidance has prepared markets to a large extent because of which the impact will not be as drastic as would have happened in the absence of any guidance.

The impact, as we have highlighted above, will be negative on EMs but the degree of impact will vary on the specific economy. We have tried to draw parallels with past rate hike cycles, the condition of comparable EMs at that point, and the longevity of the impact on those economies. Based on similarity with past rate hike cycles, an estimate has been drawn on the likely time-frame for tapering off of the event.

As the Fed embarks on its rate-hike cycle, the impact on specific EMs will largely depend on the state of the macros in those particular economies. For example, in the last hike cycle, India witnessed an inflow of massive investment – both domestic and foreign as the Government policies were favorable which led to a boom in India. There was a similar boom in the economy of Indonesia during the same time. Thus, even though the fed funds rate was increasing, there was still an upward trend in Jakarta, reason being the strong positive outlook of the economy of Indonesia.

Economic growth accelerated to 5.1% in 2004 and reached 5.6% in 2005. Jakarta was up by 42% and was the best performing among all the stock indices in Asia. There were similar scenarios in the other emerging economies during the 3rd cycle which led to an upward trajectory in the stock indices of the respective economies highlighting the fact that response to a Fed rate hike cycle is not uniform and differs from one economy to the other.

In India, the response to the three different cycles have varied but on an average, the effect of a Fed rate hike cycle tapers off in about 6 months from initiation. In earlier instances, the Indian markets charted a southward trajectory for lengthy periods post the beginning of the hawkish cycle, punctuated by short reversals. Sustained recovery started to come in around six months from the initiation of the cycle as the market adjusted to the change in global rate scenario.

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