

‘Be the Bank of Choice for a Transforming India’

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## OIL ON BOIL: IT'S TIME WE UNDERSTAND OILNOMICS BETTER

Rupee depreciation has made the headlines recently on the back of crude touching \$80 and has caused the anxiety that rupee may depreciate further.

Against this background, we identified the factors that could trigger a rupee depreciation. The time period under consideration is from Apr'14 -Feb'18. From our analysis it emerges that the Net Portfolio Investment, Trade Deficit and Foreign Exchange Reserves are the statistically significant variables impacting the value of the rupee. Surprisingly, the accumulation of foreign currency assets leads to a miniscule depreciation of Rupee. It is as if the RBI accumulation of reserves sends the signal that there is a possibility of further worsening of rupee exchange rate. This then becomes self-fulfilling. Economic news has some immediate impact but it peters out with time and hence the results for it are not significant, although the coefficient of this variable is the maximum.

Our model estimates suggest that \$10/bbl increase in oil price will increase import bill by around \$8 billion. This in turn will decrease GDP by 16bps, increase fiscal deficit by 8bps, CAD by 27bps GDP and inflation by 30bps. However, we maintain these are model estimates and actuals could be much different from them. For example, since June 2017, oil price has increased by \$23/bbl, but the direct and indirect impact on CPI has only been 26bps.

On the whole, we believe that oil is now thought to be less of an independent driver of business cycles than was previously believed. For example, when oil prices collapsed post 2014 global growth did not pick-up materially. Sadly, in India, we have the boring monologue from all researchers/ economists/ regulators of the catastrophic impact of oil price hike. In particular, diffusion of technology, use of alternate sources of energy (increase of 1.4 times in use in the last 4 years in India) and most importantly abundance of skilled labour leading to muted increase in real wages is keeping inflation in check. For example, in India wage bill of listed companies is projected to grow only by a meagre 2.9% in FY18.

Interestingly, even RBI research studies (Bhattacharyya, 2012) show that *a strategy of calibrated and phased adjustment of domestic prices may be useful in stabilising inflation expectations* rather than full instantaneous adjustment which may spiral inflation out of control and destabilise growth. Its time we take account of all these factors in our regression model to have a better understanding of all such.

However, crude oil prices are expected to impact imports. This will stretch the FY19 Current Account to 2.5% of GDP. The exports need further push so that the external metrics remain stable.

We also refute the current argument of impending rate hike by RBI on the face of surge in oil prices. We find that oil price as such has not led to countries switching to rate hikes. It is more related to the respective domestic economic developments.

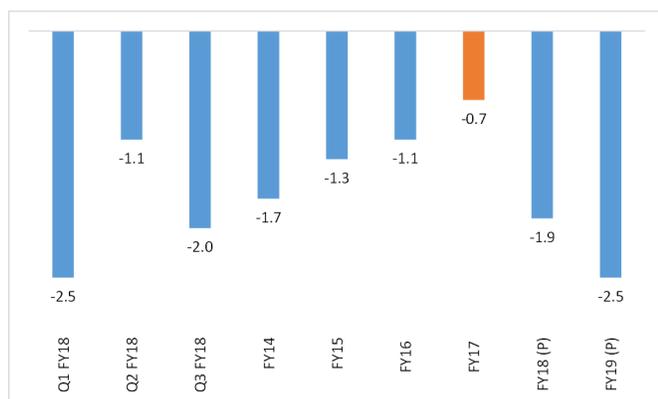


**CURRENCY WOES**

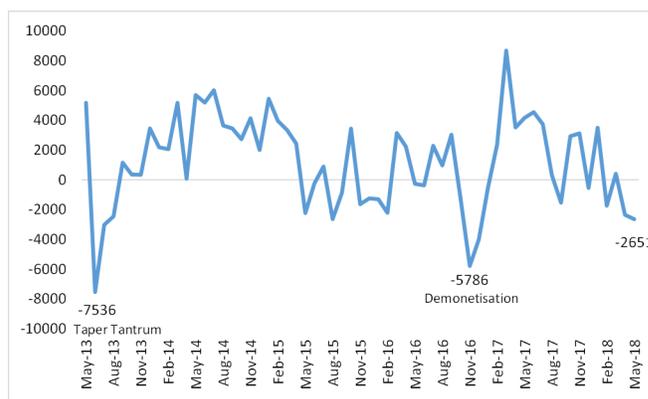
- ◆ Rupee depreciation has made the headlines recently. The recent capital outflows and increasing oil prices, which have led to worsening trade balance, have caused the anxiety that Rupee may depreciate further. In real terms also Rupee has undergone devaluation.
- ◆ In economic literature exchange rate movement has been attributed to a variety of factors including movements in current and capital account, the fiscal deficit run by the Government, the import cover and economic news which can impart shocks to the system. The availability of ample foreign exchange reserves also is a factor in determining the stability of a currency.
- ◆ In order to gauge the impact of the variables mentioned above a regression with rupee-dollar exchange rate as the dependent variable and the lagged value of monthly trade deficit, net services exports, net FDI and net FII flows from capital account and forex reserves as independent variables was run. Events in and related to India which have garnered significant attention have also been included in the form of dummy variable, so as to include the impact of shocks and structural changes. The time period under consideration is from Apr'14-Feb'18. From the analysis it emerges that the Net Portfolio Investment, Trade Deficit and Foreign Exchange Reserves are the statistically significant variable at 5% confidence level. For every \$1 billion worsening of CAD the Rupee depreciates by around 30 paise. The Net Portfolio Investment of \$1 billion shores up Rupee by 26 paise. Surprisingly the accumulation of foreign currency assets leads to a miniscule depreciation of Rupee. It is as if the RBI accumulation of reserves sends the signal that there is a possibility of further worsening of Rupee exchange rate. This then becomes self-fulfilling. Economic news has some immediate impact but it gets petered out with time and hence the results for it are not significant, although the coefficient of this variable is the highest.
- ◆ For FY18 the exports grew at 9.78%. With Apr'18 exports exhibiting only 5.17% growth, it appears that the exports have still not overcome the GST implementation issues. The crude oil price rise by \$17 in the span of a year has been reflected in the imports, showing growth of 19.59%. Crude oil prices are expected to rise further this year and we expect imports to grow by at least 14%. This will stretch the FY19 Current Account Deficit to 2.5% of GDP. The worsening of the trade deficit can impact the Rupee further. The FII inflows have also not been benevolent this year. Between Apr-May'18 outflows to the tune of \$5.0 billion have happened. The twin impact of FII outflows and worsening trade balance can hit Rupee further. So, the exports (both services and merchandise) need further push to keep the external metrics stable.

% Change in REER between Apr'17-Apr'18	
Brazil	-5.9
China	5.7
India	-4.9
Indonesia	-7.5
Malaysia	6.8
Saudi Arabia	-5.3
South Africa	5.5
Thailand	4.0
Turkey	-10.3
Source: BIS, SBI Research	

Current Account Deficit as % of GDP



Net FII Flows (\$ million)



Source: Bloomberg, SBI Research

## OIL PRICE & INTEREST RATE HIKE : NO DIRECT LINK

- During the past periods of oil price hike, it can be seen that in the first half of 2008 when oil price increased from \$98/bbl to \$140/bbl developing countries including India, South Africa, Brazil and Mexico tightened their monetary policy. However, it coincided with the period of global crisis when countries resorted to rate hikes in order to prevent capital outflows from their respective economies. This tightening policy persisted in India throughout 2008 even when oil price declined significantly during H2 2008. Even the prolonged period of oil price hike from Jan'09 to May'11, many countries including India, Malaysia, Thailand and Korea increased their key interest rates.
- In other periods of oil price increase no change in policy stance is visible across countries. Recently again many countries have moved to tight monetary policy in line with monetary normalisation of the Fed. Thus it can be concluded that oil price as such has not led to countries switching to rate hikes. It is more related to the respective domestic economic developments.
- OPEC oil production during the periods of oil prices hike has always increased except for the recent episode of oil price hike since Jun'17. During this episode the US shale companies have also increased their production.

Interest rate change during periods of oil hike										
Period	India	Malaysia	Thailand	Germany	UK	South Africa	Brazil	Mexico	US	Korea
Jan'08 - Jun'08	0.75	0.00	0.00	0.00	-0.50	1.00	1.00	0.25	-1.50	0.00
Jan'09 - Apr'11	1.25	0.25	0.75	-0.75	-1.00	-6.00	-0.75	-3.25	0.00	0.50
Dec'11 - Mar'12	0.00	0.00	-0.25	0.00	0.00	0.00	-1.25	0.00	0.00	0.00
Jun'12 - Sep'12	0.00	0.00	0.00	-0.25	0.00	-0.50	-1.00	0.00	0.00	-0.25
Jan'15 - May'15	-0.25	0.00	-0.50	0.00	0.00	0.00	1.00	0.00	0.00	-0.25
Jan'16 - Dec'16	-0.50	-0.25	0.00	-0.05	-0.25	0.25	-0.50	2.50	0.00	-0.25
Jun'17 - May'18	-0.25	0.25	0.00	0.00	0.25	-0.50	-3.75	0.50	0.50	0.25

Source: SBI Research, Bloomberg, CEIC

## IMPACT OF OIL PRICE RISE ON ECONOMIC INDICATORS

- Given the consumption pattern of oil in India, we estimate that with every \$10/bbl increase in oil price, import bill increases by around \$8 billion. If we look at the last year oil import bill, it increased by \$22 billion and crude oil price jumped throughout the year to reach \$70/bbl by Mar'18 compared to \$53/bbl by Mar'17. Thus, \$17/bbl increase in oil price led to shooting up of oil import bill by \$22 billion. Notably, the quantity consumed has also increased.
- Further, every \$10/bbl increase in oil price is likely to decrease GDP by 16bps, increase CAD by 27bps and inflation by 30bps. Assuming Re 1 excise cut after oil price hike, fiscal deficit will increase by 8bps with every \$10/bbl increase in oil price.
- Current average oil price for FY19 is \$73.6/ bbl. Considering the price of oil increase to \$90/bbl by Mar'19, the average oil price for FY19 will become \$83.9/ bbl. The worst case scenario, where we assume oil price increase to \$90/bbl in Jun'18 and thereafter continues to increase so as to reach \$100/bbl by Mar'19, will lead to average oil price for FY19 to be \$93/bbl. This will reduce GDP by 31 bps, increase inflation by 58 bps, CAD by 52bps and fiscal deficit by 40bps assuming Rs 3 increase in excise duty following oil price hike of this magnitude.
- However, we maintain these are model estimates and actuals could be much different from this. For example, since June 2017, oil price has increased by \$23/bbl, but the direct and indirect impact on CPI has only been 26 bps.

SBI model Estimates for impact of oil price hike				
	Fiscal deficit (bps)	CAD (bps)	Inflation (bps)	GDP (bps)
For every \$10 per bbl increase	8	27	30	-16
If price is \$90 by Mar'19 (average price of FY19 as \$84 /bbl) with Rs 1 excise cut	8	28	31	-17
If price is \$100 by Mar'19 (average price of FY19 as \$88.5 /bbl) with Rs 2 excise cut	20	40	45	-24
If price is \$90 in Jun'18 and \$100 by Mar'19 (average price of FY19 as \$93 /bbl) with Rs 3 excise cut	40	52	58	-31

Source: SBI Research

## ABOUT US

The Economic Research Department (ERD) in SBI Corporate Centre is the successor to the Economic and Statistical Research Department (E&SRD). The latter came into being in 1956, immediately after the State Bank of India was formed, with the objective of “tendering technical advice to the management on economic and financial problems in which the Bank has interest and which required expert analysis”.

After the first reorganization of the Bank, when specialized departments like Management Science, Management Information Systems, Planning and Market Segment Departments took over the statistical work of E&SRD, the Department was renamed as ERD.

However, with the ERD team now taking on multidimensional functionalities in the area of risk management, corporate analytics, strategy and so on, who knows, the time may have come to rename it again!

## DISCLAIMER

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