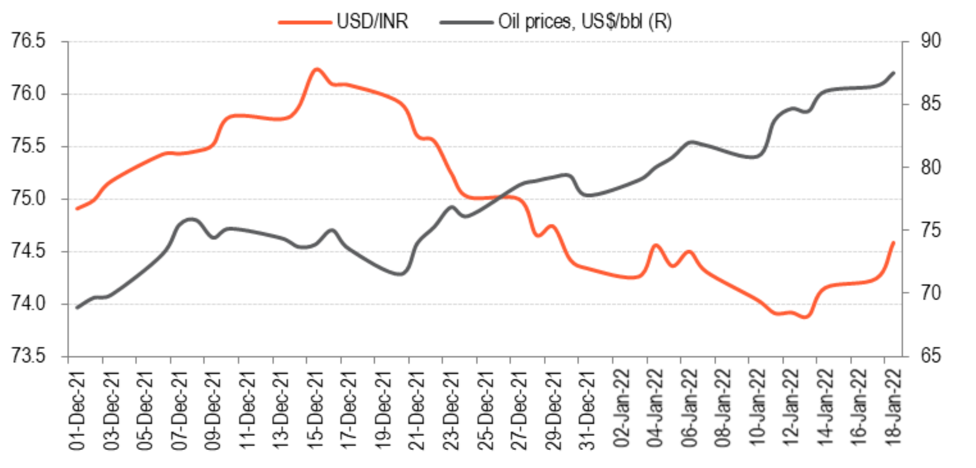
19 January 2022

Crude oil price rises to a 7-year high: Implications

Movement in oil prices and INR

Oil prices have risen recently to a more than 7-year high to trade at US$ 88/bbl. Since 1 Dec 2021, oil prices have increased sharply by ~28%. For an oil importing country like India, higher oil prices also imply widening of the trade deficit and hence pressure on the INR under ceteris paribus conditions. Since 3rd Jan'22, when oil prices surged above US$ 80/bbl, INR has depreciated by 0.4%. The decline in the last few days is more pronounced, as an average increase of 1.2% in oil prices was associated with a 0.9% dip in INR.

Figure 1: INR depreciates as oil prices increase



Source: Bloomberg, Bank of Baroda Research

Background:

The history of the recent increase in oil prices can be traced to the pre-pandemic times when nearly two years back oil producers decided to curb production as the future was uncertain. The sharp pullback came with an implicit promise that as factories reopened and cars were on the road along with a robust aviation sector, the oil industry would revive. This was when investment could have be scaled up to keep pace with production.

However today producers are finding it harder than expected to ramp up output. Members of the cartel OPEC +, which agreed to cut output are routinely falling well short of their rising monthly production targets. Worldwide oil demand has now recovered to pre-pandemic levels, but supply is at least a million bpd short of that, according to the IEA.

Therefore the combination of strong demand, weak investment and a lack of spare capacity has caused prices to rise. OPEC+ remains rather steadfast in adding 400,000 bpd back to the market each month, but data suggests that monthly additions could be closer to 250,000 bpd.

U.S. production averaged roughly 11.3 million bpd in the second half of 2021, compared with a peak of about 13 million bpd at the end of 2019. The USA can sell from its Strategic Petroleum Reserve (SPR). However, that supply is limited and the market estimates are that crude inventories have fallen to 593 million barrels, their lowest since November 2002. It must be pointed out that the USA had used its SPR in a big way at the end of last year, but that did little to soften prices.

On the downside is the development of Russia-Ukraine tensions which are at the forefront geopolitically, and have potential to exacerbate European and global energy prices.

Why Oil price is shooting up? Supply side disruptions have impacted recent upshot of oil price:

- Geopolitical tension between Russia, the world's second-largest oil producer and Ukraine
- Suspected drone attack in UAE, OPEC's third-largest producer
- Outage on a pipeline from Iraq to Turkey.

Table:1 Oil production and consumption statistics

(mbpd)	CY20	CY21	CY22E	CY23E
Non-OPEC Production	63.22	63.93	66.77	68.42
OPEC Production	30.69	31.60	34.28	34.42
Total World Production	**93.90**	**95.53**	**101.50**	**102.84**
OECD Consumption	42.02	44.38	45.76	46.08
Non-OECD Consumption	49.84	52.52	54.76	56.19
Total World Consumption	91.85	96.90	100.52	100.27

Source: IEA, Bank of Baroda Research

Impact of increase in oil prices on Indian economy:

1. Impact on Inflation

Direct share of crude oil related products in WPI basket is around 9.3%. Thus a 10% increase in crude oil would lead to increase in WPI by ~ 0.9%. Our baseline forecast for WPI is 11.5-12% for FY22 and 6% in FY23, which might increase by around ~0.9-1% because of increase in crude prices.

The share of oil in CPI is around 4.4%. So a 10% increase in crude oil would push up CPI by ~ 0.4-0.6%. In our base case we expect CPI in FY23 it is likely to be ~5-5.5%.

Figure: 2 Weight of oil in WPI and CPI basket

WPI	
Oil related products	7.4
Primary Articles: Crude Petroleum	1.9
Total	**9.3**
CPI	
Petrol & Diesel for vehicle	2.3
LPG + Kerosene + Diesel excl. conveyance + other fuel	2.0
Total	**4.4**

Source: Bloomberg

Historically, we have seen that WPI with a higher share of fuel component is in tandem with Brent compared with CPI (where share of food is higher at 39.1%).

Figure 4: Movement of WPI and Brent price

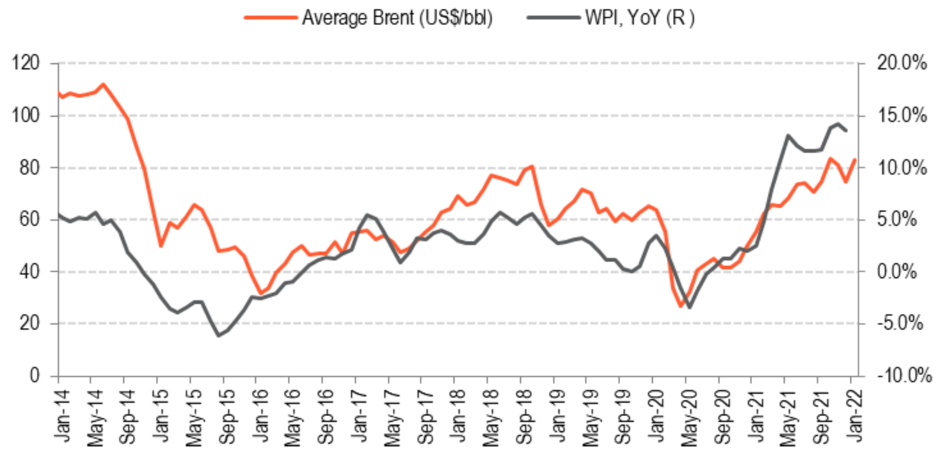
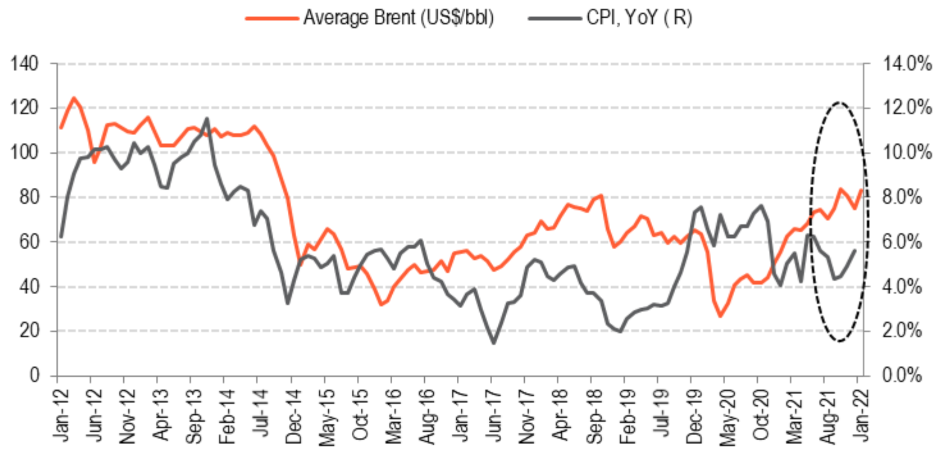


Figure 5: Movement of CPI and Brent price



Source: CEIC, Bank of Baroda Research

2. **Fiscal impact:**

Revenue collection from petroleum sector has been high for both the centre and states. The centre got Rs 2.87 tn and Rs 4.2 tn respectively in FY20 and FY21. States got Rs 2.21tn and Rs 2.17 tn as VAT from these products. The centre imposes primarily an excise duty which is fixed as 'per litre' on the product while for states it is ad valorem (the rates vary across states). Higher crude price will mean higher revenue for the states under unchanged excise duty conditions.

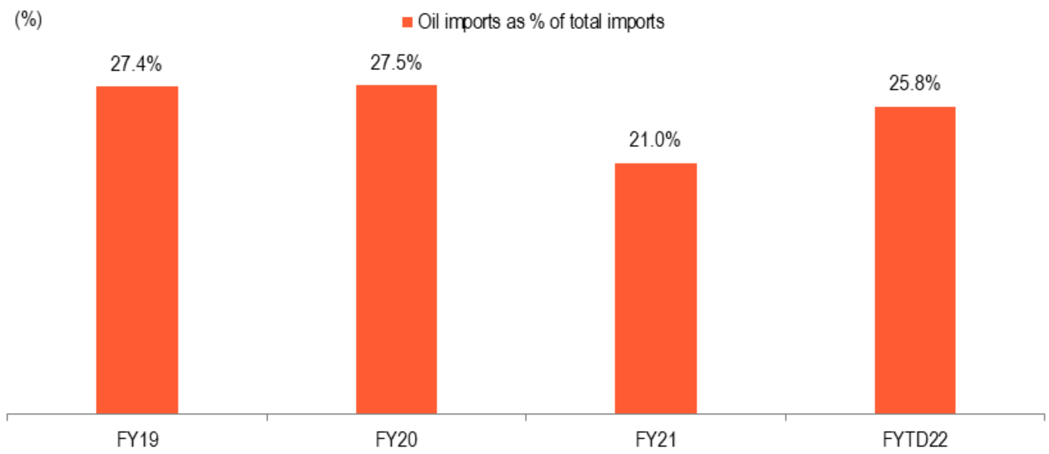
Fuel subsidy was budgeted at Rs 1300 bn in FY22. With crude prices going up the subsidy on LPG and kerosene will increase thus pushing up the subsidy too, though this may not be very significant.

3. **Current account:**

India is the world's third largest importer of crude oil. In fact, India imports about 84% of its oil requirement. Oil imports accounted for ~27% of India's total imports in FY19 and FY20. However, in FY21, the share of oil imports in total imports dipped to 21%. This was on account of lower demand due to Covid-19, as well as lower oil prices. While oil averaged US$ 71/bbl in FY20, it averaged only US$ 45.8/bbl in FY21. In FY22, the share of oil imports in India's total imports has increased to 25.8%

(Apr-Dec'21) as oil prices inched up. With oil prices on an uptrend again, the oil import bill is likely to swell further. This will have an impact on India's external position. We estimate that a 10% hike in oil prices lead to an increase of India's CAD by ~US$ 15bn or 0.4% of GDP. This will have a negative impact on INR.

Figure: 6 Oil imports as % of total imports



Source: CEIC, Bank of Baroda Research

Conclusion:

A more than 7-year high of US$ 88/bbl in crude price poses inflationary, external sector and fiscal risks:

- A 10% increase in crude oil would push up WPI by 0.9-1% and CPI by 0.4%-0.6%.
- India's CAD is likely to increase by ~US$ 15bn or 0.4% of GDP. This will have a negative impact on INR.
- Higher crude price will mean higher revenue for the states under unchanged excise duty conditions.
- With crude prices going up the subsidy on LPG and kerosene will increase thus pushing up the subsidy too, though this may not be very significant.

Authors:

Economists:
Dipanwita Mazumdar
Aditi Gupta

For further details about this publication, please contact:

Economics Research Department

Bank of Baroda

+91 22 6698 5713

chief.economist@bankofbaroda.com