



ONGC News as on 25th May 2023 (Print)

Day trading guide

18300 » Nifty 50 Futures

S1	S2	R1	R2	COMMENT
18260	18150	18375	18470	Initiate fresh shorts below 18250; stop-loss at 18325.

₹1616 » HDFC Bank

S1	S2	R1	R2	COMMENT
1590	1575	1635	1650	Breaches support; go short with stop-loss at 1635.

₹1298 » Infosys

S1	S2	R1	R2	COMMENT
1280	1260	1330	1360	Buy now and on dip to 1285; stop-loss at 1275.

₹433 » ITC

S1	S2	R1	R2	COMMENT
432	430	440	450	On the verge of a breakout; buy with stop-loss at 428.

₹166 » ONGC

S1	S2	R1	R2	COMMENT
165	163	168	170	Trading near resistance; sell with stop-loss at 168.

₹2437 » Reliance Ind.

S1	S2	R1	R2	COMMENT
2420	2400	2465	2480	Could stay flat; refrain from taking intraday trades.

₹582 » SBI

S1	S2	R1	R2	COMMENT
580	572	585	590	Stuck in a range; do not trade until it breaks out.

₹3301 » TCS

S1	S2	R1	R2	COMMENT
3300	3260	3330	3400	Go long if the stock rallies past 3330; stop-loss at 3300.

S1, S2: Support 1 & 2; R1, R2: Resistance 1 & 2.

India to be major green H₂ exporter in 15 yrs: Puri

SUBHAYAN CHAKRABORTY

New Delhi, 24 May

India will be a major green hydrogen hub in the next 15 years, meeting not only domestic demand but also becoming a key exporter of the promising fuel, Petroleum and Natural Gas Minister Hardeep Singh Puri said.

Speaking at the CII Annual Session 2023,



Puri said the demand for green alternatives to traditional fuel has been growing in India at a fast clip, and from various sources.

Implementing one per cent sustainable aviation fuel in all domestic flights by 2030,

would require 140 million litres of ethanol.

“This is a net gain not only for aviation but agriculture also,” he stressed. Puri said that since the beginning of the Ukraine war, many countries cut green transition goals, but not India. He said Indian industry has also started to rapidly expand its plans to tap into the green transition. However, the minister added the country can’t afford to stop investments in expanding its source of traditional fuels. “I can guarantee that our domestic exploration and production would go up exponentially,” he said. About 85 per cent of India’s domestic petroleum demand continues to be imported.

Even though domestic gas production is going up 18 per cent a year, the country’s reliance on imported liquified natural gas (LNG) has remained static. Up to 25 per cent of the global increase in demand for energy is expected to come from the Indian market in the next 20 years, he said.

India works on standards to soften EU carbon tax blow

Move aims to avoid disputes if EU, other countries recognize embedded carbon standards

Ravi Dutta Mishra & Subhash Narayan
NEW DELHI

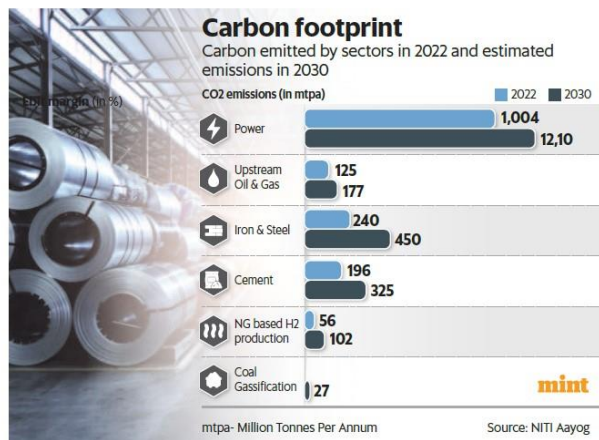
India is working to develop standards to measure the carbon embedded in products, and expects the European Union and other developed countries to recognize these in order to avoid disputes over Indian exports, a senior government official said.

The standards, being developed by the Bureau of Energy Efficiency (BEE) under the power ministry, are seen as necessary to mitigate the impact of carbon taxes planned by the EU and several other countries on a wide range of steel and aluminium products.

The measures have been discussed by an inter-ministerial group of a number of ministries including steel, power, environment and commerce. The commerce ministry, which is leading the talks with the EU, has challenged its Carbon Border Adjustment Mechanism (CBAM) at the World Trade Organization.

The standards are also needed for a key defensive purpose—the CBAM has provisions to extend the tax even to low levels of embedded emissions in a bid to prevent exporters from finding loopholes in the CBAM to evade the tax.

“Certain products should be included in the scope of the CBAM despite their low level of embedded emissions occurring during their production process, as their exclusion would increase the likelihood of circumventing the inclusion of steel products in the CBAM by modifying the pattern of trade towards downstream products,” the EU carbon tax legisla-



tion says.

The CBAM empowers lawmakers of the 27-nation bloc to charge a tax on imports of steel, aluminium, fertilizer, electricity, cement and hydrogen from 2026. “What the EU seems to be saying is that even if you supply products to them from a less carbon emitting facility, they will treat it as the average of the carbon embedded into the products. So, this is a stand that is clearly not a correct and fair stand,” the official cited above told *Mint*.

Carbon pricing is thought to curb greenhouse gas emissions by placing a fee on emissions and offering an incentive for emitting less. The price signal creates shifts in consumption and investment patterns, making economic development compatible with climate protection, according to

the UN. The government official said the EU should allow the BEE to accredit Indian inspectors to measure the carbon embedded into various products and honour certificates released by bureau. “If they don’t agree, it would mean that every exporter will have to get their product certified by a European inspector or regulator. This could lead to situations which we are seeing in the case of Clearing Corp. of India Ltd (CCIL), where RBI has refused EU regulators to audit the books and the European regulators are asking European banks to withdraw from the clearing facility being provided by the CCIL.” India does not currently have a carbon pricing mechanism, but the Energy Conservation (Amendment) Bill, 2022, lays the foundation for a national carbon market. As part of this,

the BEE is developing a framework to roll out Perform Achieve and Trade (PAT) and Renewable Energy Certificates (REC) schemes.

Sangeeta Godbole, a former revenue officer who was part of the Indian team negotiating the India-EU free trade deal, said that if exporters are unable to quantify their exact emissions, a ‘default value’ of their 10% worst performing industries would apply and in case such data is not ‘reliable’, a default value of 5% worst performing EU factories will apply.

“EU’s carbon prices depend on auctions and vary quite significantly from week to week. In 2022, they varied from € 65.01 to 98.01 euros per tonne. The price of goods for EU’s importers, and by implication for exporters to the EU, will constantly vary,” Godbole said.

“For iron and steel, CBAM regulation prescribes counting only direct emissions. Direct emissions are high for primary products of iron and steel made in blast furnaces and electric arc furnaces. Emission is negligible for products like steel sheets which are made from primary products using hot or cold rolling processes,” said Ajay Srivastava,

founder, New Delhi-based thinktank Global Trade Research Initiative.

“But the Regulation includes these value added products despite low direct emissions in order to ensure that firms should not switch from exporting steel to exporting steel products. Same logic applies to aluminium products.”

Queries sent to the ministries of commerce, steel and power remained unanswered at press time.

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1.8% of India's exports may be impacted by CBAM

27 nations (EU) to charge carbon tax on select imports

SARVESH KUMAR SHARMA/MINT

GRMs of state-run refineries double on higher oil demand

Rituraj Baruah
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Increasing demand for petroleum products and cheaper oil imports from Russia helped refineries run by public sector oil marketing companies (OMC) witness a surge in gross refining margins (GRM) during the last financial year.

The average GRM of major state-run OMCs, including Indian Oil Corp. Ltd (IOCL), Hindustan Petroleum Corp. Ltd (HPCL) and Bharat Petroleum Corp Ltd (BPCL) in FY23 rose 68-109% over FY22, reporting an average of \$19.52 per barrel, \$12.09 and \$20.04 a barrel, respectively. In FY22, it was at \$11.25, \$7.19 and \$9.66 per barrel, respectively, according to their financial earnings documents for the last fiscal year.

However, the PSUs said in the regulatory filings: "Suppressed marketing margins of certain petroleum products have offset the benefit of higher GRM".

Retail prices of diesel and petrol have remained flat since November 2022, despite the volatility in the global crude prices.

India managed to partially mitigate the impact of soaring global energy prices by diversifying its sources of crude

oil imports, with Russia emerging as a key supplier, offering oil at a discount to market rates. Further, the price cap imposed by G7 countries on Russian oil resulted in lower prices. As a result, Russia surpassed other nations to become India's largest oil supplier in FY23, with imports 50.84 million tonnes of crude.

Demand for diesel was at 85.90 million tonnes, while petrol demand stood at 34.98 million tonnes

However, by the value of imports, it stood second at \$31.02 billion. Oil import of 50.31 million tonnes from Iraq was valued at \$33.37 billion.

Prashant Vashisht, vice-president of Corporate Ratings, ICRA, said growth in GRM has come on the back of strong demand for diesel, petrol and aviation turbine fuel (ATF) last year, more so in the fourth quarter of FY23. In the corresponding quarter of

FY22, demand for diesel and ATF was muted, he said.

"Easing oil prices and stagnant retail fuel prices, has supported refinery margins. Even OPEC's surprise price cut did not lift the prices as anticipated. Further, Indian refineries were among the beneficiaries of discounted oil from Russia, which is likely to have supported the margins."

In FY23, demand for refined petroleum products hit a record high, led by transportation fuel. Data from Petroleum Planning & Analysis Cell

(PPAC) showed consumption reached 222.30 million tonnes in FY23, up 10.2% compared to FY22.

In the last financial year, demand for most products breached pre-covid levels with most sectors recovering after the pandemic-led disruptions led to a slowdown in the economy.

Demand for diesel, which is the most-consumed fuel in India, was at 85.90 million tonnes, while petrol demand stood at 34.98 million tonnes.

Refiners have also witnessed an improvement in crack spreads—the price difference between a barrel of crude oil and the petroleum products refined from it.

A recent ICRA report, however, said that while GRMs have increased over the past several months, they started moderating, even as the cracks for diesel and jet fuel continued to be healthy. Amid elevated refining margins, the Centre had imposed special additional excise duty on certain refinery products effective 1 July 2022, reducing the profitability of refiners to some extent, ICRA said.

Demand windfall

Gross refining margins of public sector oil marketing companies have seen a significant rise in FY23 compared with the previous fiscal on the back of rising demand for petroleum products and cheaper oil imports from Russia.

Average GRM of state-run OMCs (\$/bbl)



Source: Company regulatory filings

LAST WORD

AMITABH KANT



Industrialise, yes; carbonise, no

The enablers of economic growth in one era are not necessarily applicable to another. The industrialisation of today's developed world was built on the back of burning fossil fuels. Not just in power generation, but also in industrial and long-distance transport, hydrocarbons have fuelled growth in the past centuries.

Cumulatively, the developed countries of today have accounted for close to two-thirds of all emissions since 1750. In the 1.5° C warming scenario, only 14 per cent of the total carbon space remains, with 2,400 gigatonnes (Gt) of the available 2,800 Gt space already emitted. Since pre-industrial times, India has utilised 1.5 per cent of the total carbon space.

With the earth getting close to the 1.5° C warming target, countries today cannot grow through burning fossil fuels anymore. Growth cannot come at the expense of sustainability anymore. The challenge that lies in front of the developing nations is to decarbonise electricity generation, industrial operations and transport.

Recognising this challenge, India has emerged as a leader in the energy transition and the fight against climate change. First, much has been done to decarbonise electricity generation in India. The installed capacity of renewable energy now stands at 172 gigawatts (GW). We achieved the targets for 2030 set out in our first nationally determined contribution (NDC), nine years ahead of schedule. India's updated NDC included a statement on propagating a healthy and sustainable lifestyle (LiFE), with the premise that the fight against climate change is a collective fight, rooted in individual and community behavioural change.

By 2030, half our electric installed capacity would be fed by renewables, and carbon intensity of our GDP would be reduced by 45 per cent over 2005 levels. The challenge with renewable energy is its inherent nature and its need to be bundled with storage to provide Round the Clock Renewable (RE-RTC) or On demand Carbon Free Energy (CFE) to the Indian grid. Energy storage is key for our energy transition into a low or zero carbon future. Energy storage will enable the grid to absorb more and more renewable energy and reduce overall carbon intensity of the

Indian grid.

Power generation is not the only source of emissions. Industrial applications and transport are two other large producers of emissions. One solution to vehicular emissions is electric vehicles (EVs), which have gained substantial traction owing to government initiatives such as FAME (Faster Adoption and Manufacturing of Hybrid & Electric Vehicles). Together with production linked incentive (PLI) schemes for batteries and automobiles, the ecosystem for EVs in India needs a vigorous push. This would require:

- ◆ At least one million fast chargers in the country to adopt EVs in the next five years. Instead of importing, we need to push localisation content in manufacturing, with megawatt hour charging (Tesla has opened its charger's IP) for buses and commercial vehicles.

- ◆ Advanced Chemistry Cell (ACC) battery storage is critical world over—the capacity is surpassing 500GW. Only 30GW has been allotted under PLI. This needs to be expanded and localisation should happen on a large scale. In its absence India will become the assembly house of finished products for cell manufacturing.

- ◆ Repurposing and recycling of ACC batteries: Lithium-based batteries need a disposal policy. We need to repurpose and recycle them on giga scale.

Industrial emissions and long-distance transport are two areas where decarbonisation strategies need to be accelerated. So, too, shipping and aviation. These have been characterised as 'hard-to-abate' sectors. This is where green hydrogen (GH2) comes into the picture. It can play a crucial role in decarbonising these hard-to-abate sectors. Recognising the importance of GH2, the National Green Hydrogen Mission has been announced. It aims to make India a global hub for production and export of GH2. Green hydrogen is produced by using renewable energy to crack water through electrolyzers.

National competitiveness now will not just be a function of labour, capital and technology, but also a function of sustainability. Export markets will increasingly be conscious of carbon footprints. India must become the first country to industrialise without the need to carbonise.

The author is G20 Sherpa, government of India, and former CEO, NITI Aayog. All views expressed are personal.

COMMODITY CALL.

Natural gas futures: Buy if price dips to ₹180



Akhil Nallamuthu

bl. Research Bureau

Natural gas futures on the MCX have been very volatile over the past month. The futures were not able to establish a trend in either direction but produced a zig-zag movement, something in the lines of a sideways trend. Although the boundaries have not been clear, broadly speaking, the contract has been oscillating within ₹180 and ₹210. After producing a gain last week, the continuous futures contract has seen a decline in price so far this week. Currently around ₹194, the contract is trading just above the 20-day moving average at ₹190.

While there is a good chance for a recovery from here, we cannot reject the possibility of the contract declining towards the ₹170-180 price band. Therefore, from the perspective of trading, the risk-reward ratio does not favour both long and short positions. So, risk averse traders can stay away.

Traders with high-risk appetite can take long positions for half of the intended amount at the current level of ₹194. Add longs for the remaining amount allocated to natural gas if the price dips to ₹180. Risk-averse traders can consider longs at ₹180.

Growing energy consumption tells a good story: Hardeep Singh Puri

Our Bureau
New Delhi

Demand for energy in India is skyrocketing, and as long as the consumption is growing, it tells a good story, Minister for Petroleum and Natural Gas,

Hardeep Singh Puri, said on Wednesday.

According to him, for the next 20 years — up to 2045 — 25 per cent of the increase in demand for energy will come from the Indian market. India, interestingly faces a “trilemma” (three-pronged

challenge) of availability, affordability in price and sustainability, said the Minister.

“We need to ensure availability (of energy) and a country of India’s size cannot afford to even have a minor error in supply. The second is affordability. It

means that whilst you are following market principles and want the market to set to price, you need some level of administered pricing. And the third part is sustainability,” he said during the annual session of the CII.

Highlighting the signif-

icance of energy availability, the Minister said nearly 6 crore people visit petrol pumps every day; and availability has to be ensured across. “We have not allowed the availability and affordability issues affect our commitment towards sustainability,” he said.

Energy affordability, not just availability, critical for a large country like India: Hardeep Puri

ENS ECONOMIC BUREAU
NEW DELHI, MAY 24

ENERGY AFFORDABILITY, and not just availability, is critical for a large developing country like India and that requires some sort of an administered pricing mechanism (APM) for times when market-determined prices become unaffordable for consumers, Petroleum Minister Hardeep Singh Puri said on Wednesday.

"It makes no sense to have (energy) availability if the affordability is not there...it means that whilst you are following market principles and you want the market to set the price level, you do need some form of what we call APM, I am talking about energy sector in general...Because when push comes to shove, you will find that something in that system (market pricing) may not work," Puri said here at the annual session of the Confederation of Indian Industry. Giving an example, the minister said that private sector fuel retailers were loath to selling petrol and diesel at their retail outlets when crude oil and fuel prices shot up globally in the aftermath of Russia's February 2022 invasion of Ukraine. At the time, public sector fuel retailers, who control the lion's share of fuel retail market in India and are



Hardeep S Puri. File

"umbilically tied to the government", did not hike prices as "good corporate citizens" and were selling petrol and diesel at a loss, the minister said.

"It is well known that those...(private sector) retailing stations decided that they bore no responsibility for what, I regard in a crisis situation, would be the most fundamental requirement in an economy--availability and affordability," Puri said, adding that a large number of private sector fuel bunks had hoardings informing customers that cheaper fuel was available at outlets of public sector oil marketing companies (OMCs).

With international fuel prices having cooled off now and retailers no more forced to sell petrol

and diesel at a loss, Puri said that there are signs that private sector players want to win back their lost market share.

"I mean, the same corporate sector, who for some time, did not want to sell at their bunks, they just brought some diesel mix and reduced the price. I like that. Because you know they lost their market share, because they were not selling it at their bunks...that's a good sign. When my companies do well, we all say very good. It means that the economic buoyancy is there, etc," the minister said.

Recently, Jio-bp—the fuel retail joint venture of Reliance Industries (RIL) and the UK's BP plc, launched an additive-laced premium diesel at a discount to diesel sold by the OMCs.

As per petroleum ministry data, India has around 87,000 fuel retail outlets, of which around 8,300 belong to private sector players--mainly Nayara Energy and RIL (Jio-bp). Nayara Energy has close to 6,400 fuel bunks, while Jio-bp has over 1,500. According to government sources, private sector fuel retailers' reluctance to sell petrol and diesel in the domestic market following the outbreak of the Ukraine war had led to supply shortages at fuel pumps in some parts of the country.

FULL REPORT ON
www.indianexpress.com

Bank funds lead returns charts

Pharma, IT schemes lag in returns during past one year

ASHLEY COUTINHO
Mumbai, May 24

BANKING FUNDS HAVE emerged as the top sectoral performers in the past one year, with the category giving returns in excess of 29%, outperforming other sectoral and thematic schemes.

In comparison, infrastructure funds gave returns of 21.6% while the performance of pharma and IT schemes gave abysmal returns of 2.7% and 2.8%, respectively, data from Value Research shows.

Among thematic funds, PSU funds returned 24.7% and consumption-oriented schemes clocked returns of 15.8% during the period.

Tata Banking & Financial Services has returned 30.4%, Sundaram Financial Services Opportunities 32% and SBI Banking and Financial Services Fund 21.8%.

Two PSU Bank ETFs - Nippon Ind ETF Nifty PSU Bank BeES and Kotak



Nifty PSU Bank ETF have topped the charts with returns of over 64%.

The Nifty Bank index has gained 27% in the past year and is hovering near its all-time high of 43,677. Shares of banks came under pressure in late January after the publication of the Hindenburg report regarding the Adani Group.

State-owned lenders had a "material" exposure to the Adani Group at 30% of the group debt.

For PSU banks, the exposure was more meaningful at 0.6% of loans and 5% of FY24 net worth, CLSA had said in a note.

Bank stocks have since stabilised. Foreign portfolio investors (FPIs) have pumped in over \$6.3 billion since March in Indian shares, which has also benefited financial stocks.

Banking funds invest not only in banks but the entire gamut of financial services entities-wealth

management, housing finance, rating agencies, broking, non-banking financial companies (NBFCs) and micro finance institutions.

The banking sector reported strong financial performance during FY23, with a few banks clocking their decadal-best RoA, mainly aided by robust growth, margin delivery in a rising-rate cycle and improving asset quality in a post-Covid era, according to analysts.

State Bank of India, the country's largest lender, reported healthy 80% yoy earnings growth for Q4FY23 on the back of 25% yoy operating profit growth. Asset quality showed limited signs of stress, with negligible slippages and gross and net NPLs at historical lows.

"For FY24, credit growth/margins will moderate. However, treasury gains for PSBs and continued lower loan loss provision for most banks should keep net-earnings growth healthy. That said, we prefer to remain selective on banks amid the increasing risk of macro-dislocations, which carry a strong capital/provision buffer as well as return ratios," said a recent note by Emkay Global Financial Services.

JSW Energy looks to close CY24 with 9.8 GW capacity

RAJESH KURUP
Mumbai, May 24

SAJJAN JINDAL-LED JSW Energy expects to close calendar year 2024 with 9.8 GW of operational power capacity, even as it has earmarked a capex spend of ₹10,000 crore for the current fiscal.

The company will spend ₹12,000-13,000 crore in capex per annum till FY30, an increase from the earlier outlay of ₹8,000-10,000 crore.

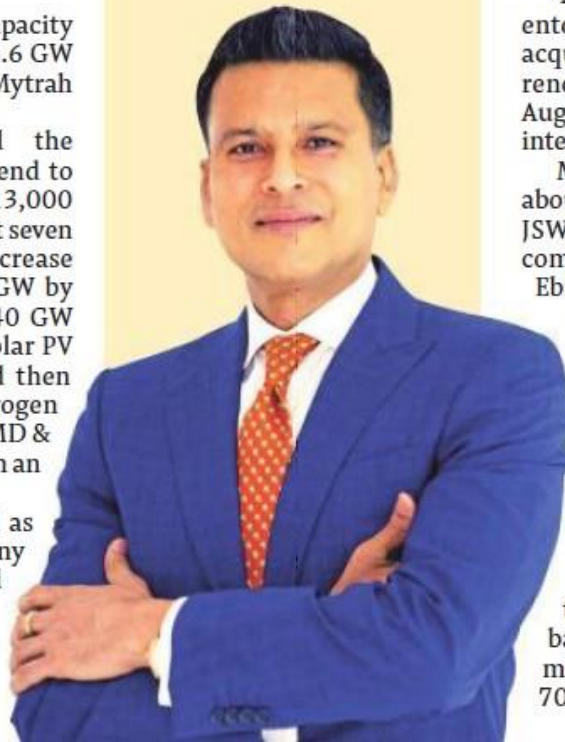
JSW Energy had total capacity of 4.6 GW, which rose to 6.6 GW following the addition of Mytrah Energy's renewable assets.

"We have increased the guidance and now we intend to spend about ₹12,000-13,000 crore every year for the next seven years. This would be to increase power generation to 20 GW by FY30, energy storage to 40 GW hour, to set up 1 GW of solar PV panel manufacturing and then 3,800 tonne of green hydrogen facility," JSW Energy joint MD & CEO Prashant Jain told FE in an interview.

Terming the last fiscal as "good", Jain said the company expects FY24 to be a good year too. "We have increased our capacity by 44%, with Mytrah and a lot of other capacities are getting com-

We have increased the guidance and now we intend to spend about ₹12,000-13,000 crore every year for the next seven years.

PRASHANT JAIN, JOINT MD & CEO, JSW ENERGY



missioned in the current financial year, we expect an Ebitda growth of 60-70% in FY24," he added.

JSW Energy has refinanced and restructured the debt of Mytrah Energy from about ₹10,000 crore to ₹8,500 crore at a 250 basis points lower interest cost and weighted average interest cost of 8.65%. The balance would be funded through internal cash as equity.

The company, which had entered into an agreement to acquire Mytrah's 1,753 MW renewable energy portfolio in August last year, has also begun integration of the firm with itself.

Mytrah had posted an Ebitda of about ₹1,200 crore last year, and JSW Energy was expecting the company to post a normalised Ebitda of ₹1,650 crore in 12-18 months.

"The upgrade and Ebitda improvement plans are going much ahead of the schedule and we expect to achieve Ebitda of about ₹1,450 crore in this fiscal itself," Jain added.

JSW Energy, which has also completed the acquisition of Ind-Barath through the bankruptcy process, will commission both of its units of total 700 MW in this fiscal.



Sterlite arm to source 16MW hybrid power from Serentica

FE BUREAU
New Delhi, May 24

STERLITE COPPER, a subsidiary of Vedanta, has signed a 25-year power delivery agreement (PDA) with Serentica Renewables India (SRIPL) to source 16 MW of hybrid renewable power for its Silvassa-based copper operations.

The hybrid energy project will be constructed on a captive model and will operate on a build-own-operate basis. It is financed on a 70:30 debt-to-equity basis, with Sterlite Copper holding a 26% equity share in the special purpose vehicle (SPV).

“This partnership will mark a milestone in our ESG (environmental, social and governance) journey and is in line with our commitment to giving back to the environment through our sustainability agenda of ‘Sterlite Cares,’” Sterlite Copper deputy chief executive officer Puneet Khurana said.

As sustainability is imperative for the industry, Sterlite Copper will continue to invest in the planet today for a better tomorrow, Khurana said, adding that the targeted wheeling of the project is scheduled from August 2024.

Through this collaboration, Sterlite Copper aims to make a smooth transition from conventional thermal power to hybrid renewable energy to reduce its carbon footprint, the company said in a statement.

“The hybrid renewable energy is expected to reduce Scope 2 Greenhouse Gas (GHG) emissions by 64,535 metric tonnes of carbon dioxide equivalent (MTCO_{2e}). This aligns with Vedanta’s goal to achieve net-zero carbon emissions by 2050,” Khurana said.

Sterlite Copper recently launched ‘Sterlite Cares’, an ESG sub-brand aligned with Vedanta’s ESG vision.

'PFC has Restructured and Refinanced ₹10,150 crore of JSW Energy Loans'

Total net debt is now ₹8,500 crore and interest is reduced by 250 bps: says CEO

Kalpana.Pathak
@timesgroup.com

Mumbai: Power Finance Corporation (PFC) has restructured and refinanced ₹10,150 crore of energy loans for Sajjan Jindal's JSW Energy, a senior company official said.

JSW Energy had been looking to refinance ₹10,150-crore loans that it took after acquiring Mytrah Energy India's renewables portfolio for an enterprise value of about ₹11,934 crore last year.

"We have totally restructured and refinanced it," Prashant Jain,

CEO of JSW Energy, said at the firm's fourth quarter investor presentation on Tuesday.

"The interest has been reduced by around 250 basis points and I'm expecting that the total weighted average interest costs will now be 8.65% for the entire Mytrah asset," he said.

Jain said the company's total net debt is now at around ₹8,500 crore, with the balances going as the equity. He said Mytrah Energy, JSW Energy's biggest acquisition till date, is "a very attractive acquisition for us".

The company had acquired 1,753 megawatt for ₹10,150 crore,

which translated to ₹5.77 crore per megawatt. In comparison, the asset it is building currently is at ₹7.5 crore per MW.

"Normalised Ebitda will be coming to around ₹1,650 crore, which translates to ₹943 crore per gigawatt as compared to what we are doing around ₹850 crore per gigawatt," Jain said. "So, the return on capital is going to be much, much better as compared to what we have been doing in our other assets."

JSW Neo Energy, a wholly-owned

subsidiary of JSW Energy, completed the acquisition of Mytrah assets in March this year. This entailed acquisition of 15 special purpose vehicles (SPVs) and 13 ancillary SPVs having 1,449 MW of total installed renewable energy capacity. The said 28 subsidiaries of MEIPL have now become subsidiaries of JSW Neo and accordingly step-down subsidiaries of the company.

The Mytrah portfolio of 1,753 MW comprises 1,331 MW of wind capacity and 422 MW (487 MWp DC) of solar capacity operating primarily in the southern, western and central parts of India. The assets have a proven operational track record and long-term PPA with an average remaining life of 17 years.

With about 2.9 GW of under-construction projects, which are likely to be commissioned in phases over the next 12-18 months, JSW Energy is well ahead of its target to reach 10 GW operating assets by FY25 with the share of renewables increasing to 61%, the company said.

More Power

MYTRAH

1,753 megawatt capacity



Long-term PPAs* with average remaining life of 17 years

Assets said to have proven operational track record

Estimated Returns on Investment
₹5.77 cr per megawatt

Normalised Ebitda to be ₹1,650 cr or ₹943 cr per gigawatt

JSW ENERGY

2.9 GW of under-construction projects

Target:

10GW by FY25

*Power purchase agreements



What after taming inflation beast?

Rupali Sarkar
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The inflation fever is finally breaking. The latest round of inflation prints from key global economies is a harbinger of that. After remaining stubbornly elevated through 2022, price pressures are easing across many developed and emerging economies.

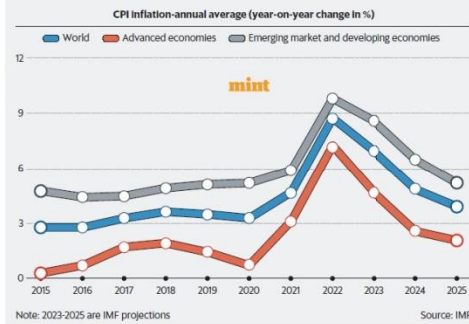
In the US, inflation measured through the consumer price index (CPI) fell to a two-year low of 4.9% year-on-year (y-o-y) in April. In the other major developed economies of UK and Eurozone, even as inflation is still elevated, it has come off from recent peaks.

A similar trend is playing out in key emerging economies. In India, headline CPI inflation fell to an 18-month low of 4.7% y-o-y in April. Among economies in the ASEAN group, Indonesia and Philippines saw inflation dip to multi-month lows in April. ASEAN is short for Association of Southeast Asian Nations.

What adds to comfort is that this decline in inflation is largely broad-based, thus aiding hopes that the downward trend could sustain. And thanks to easing international prices of many heavyweight food items in the CPI basket, food inflation is also cooling off.

Heading south

The IMF expects world inflation to ease sharply this year.



ket, food inflation is also cooling off.

Secondly, a significant fall in global crude oil prices from the levels seen last year, has come as a breather. This has translated to softening energy inflation. The upside in the commodity complex including oil prices may remain capped going ahead amid weakening global

growth and fading demand. In short, the worst for food and fuel inflation could be behind us.

Finally, the elephant in the room—a relatively sticky core inflation, which accounts for a much larger share of the CPI basket, particularly in developed economies. It is worth noting that pre-

cise official definition of core inflation differs across economies and central banks. But broadly, core inflation is calculated after stripping the volatile food and energy components and is a reflection of underlying price pressures in an economy.

There is some good news on this front as well. In the US and India, core inflation fell meaningfully in April.

In the backdrop of aggressive global interest rate hikes and nascent softening in economic momentum, moderation in core inflation is hardly surprising. Further, through most of last year, goods producers have been raising selling prices, which may be curtailed now amid slowdown in global growth.

All said, in this long-standing battle, most global central banks seem to have tamed the inflation beast, to a large extent, with their monetary policy rate tool. Going by the projections of the International Monetary Fund (IMF), a meaningful decline in world inflation is in the offing. World CPI inflation is seen declining from 8.7% y-o-y in 2022 to

7.0% in 2023 and further to 4.9% in 2024. (See chart)

All this put together suggests that the global economy is heading to the disinflationary zone—a scenario of temporary moderation in inflation. Also, with disinflation, comes an increased possibility of a much-awaited pause after a sustained period of global monetary tightening.

TAKING THE EDGE OFF

In India, April CPI inflation fell to a low of 4.7%. Indonesia and Philippines saw inflation dip to lows

FURTHER, in the US and India, core inflation has seen a meaningful decline in April

But, looking a little ahead, central banks could be gearing up, yet again, for a new battle—the one to support growth.

Global economic momentum is feared to weaken this year, under the burden of aggressive monetary policy tightening.

For instance, the May Eurozone and US flash purchasing managers' index

surveys, published by S&P Global show that business activity in manufacturing sectors in these regions have started showing signs of weakness.

While it remains to be seen how deep the global growth slump can get, a faster recovery may warrant some degree of monetary easing, next year, particularly if global disinflation sustains.

SATISH KUMAR/MINT

India, Australia keen to conclude trade agreement by 2023-end

Press Trust of India
Sydney

India and Australia on Wednesday inked a migration and mobility partnership pact to open up opportunities for students, academic researchers and business people, and resolved to conclude a comprehensive trade deal by the end of year to significantly expand economic ties.

The pact was signed after wide-ranging talks between Prime Minister Narendra Modi and his Australian counterpart Anthony Albanese.

In his media statement, Albanese said the aim is to conclude the Comprehensive Economic Co-operation Agreement (CECA) by the end of the year. "We reiterated our shared ambition for an early conclusion of the Australia-India comprehensive economic co-operation agreement later this year," he said in the presence of Modi.

Last year, India and Australia finalised the Economic Co-operation Trade Agreement (ECTA) and it came into force last



CONSTRUCTIVE TALKS. Prime Minister Narendra Modi and his Australian counterpart Anthony Albanese at a joint press meet, in Sydney on Wednesday *AP*

December. The two sides are now working on the CECA. "Today, in my meeting with Prime Minister Albanese, we talked about taking India-Australia Comprehensive Strategic Partnership to greater heights in the next decade," Modi said.

TASK FORCE

"We discussed in detail, the possibilities of co-operation in new areas. Last year India-Australia ECTA came into effect. Today we have decided to focus on CECA — Comprehensive Economic Co-operation Agreement," he said.

"We had constructive discussions on strengthening our strategic co-opera-

tion in the sectors of mining and critical minerals. We have identified concrete areas for co-operation in renewable energy," Modi said.

"It was decided to set up a task force on Green Hydrogen," he added. The taskforce will advise on opportunities to accelerate manufacture and deployment of clean hydrogen, focusing on hydrogen electrolyzers, fuel cells as well as supporting infrastructure and standards and regulations.

Foreign Secretary Vinay Kwatra said the next two rounds of talks on the economic partnership pact have been scheduled for June and July.

**IN ADDITION TO
₹2,000-CR NCD ISSUE
Suzlon in Talks
with Deutsche
for \$350-m
Offshore Debt**

Shilpy Sinha
@timesgroup.com

Mumbai: Green energy company Suzlon is in talks with Deutsche Bank to raise \$350 million in debt from the offshore market. This is in addition to ₹2,000 crore it is raising by selling non-convertible debentures (NCD) at home.

The NCDs are being sold through its subsidiary, Suzlon Global Services. The company is in talks with JP Morgan regarding the NCD fundraising.

The funds raised will be utilised to prepay Suzlon Energy's debt and capital expenditure. It will help the company in meeting early redemption of foreign currency convertible bonds (FCCBs) worth \$35,931,200, which were originally due for payment in 2032. The company had an order book of 782 MW as on December 31, 2022, which is likely to be executed over this financial year.

Both Suzlon and Deutsche Bank declined to comment.



Suzlon Energy has recently reported a profit after tax on an operational basis during the second quarter of FY23. While the company has undergone multiple restructurings with its lenders since 2017-18 in order to address its debt issues, it refinanced its existing debt in May 2022, replacing 16 lenders including State Bank of India with two new lenders — REC and Indian Renewable Energy Development Agency.

The company has debt service obligations of more than ₹961 crore in FY24 and FY25, which it plans to repay from operating cash flows of ₹1,450 crore over the next two fiscals, according to a recent Crisil report.

The company's unencumbered cash and equivalents stood around ₹125 crore as on March 23, 2023. The company has planned capex of about ₹150 crore each over FY24 and FY25, which it plans to fund through internal accruals, the Crisil note said.

Suzlon is a provider of operations and maintenance of renewable energy solutions with around 13.8 GW of wind energy assets under service in India. The group also has 5.9 GW of installed capacity outside India spread across 17 countries, according to the company's website.

ADANI GROUP MAY INVEST \$3 BN IN VIETNAM

REUTERS

New Delhi, 24 May

Adani group is exploring the possibility to invest up to \$3 billion in seaport and renewable energy projects in Vietnam, the Vietnamese government said in a statement on Wednesday.

The statement came after a meeting in Hanoi on the same day between Vietnamese Prime Minister Pham Minh Chinh and Karan Adani (pictured), chief executive officer of Adani Ports and Special Economic Zone, a unit of the cooking oil-to-coal mining conglomerate Adani group.



“Vietnam is willing to create more favourable conditions for India's large companies, including Adani, to invest and do business in the country,” Chinh told Karan at the meeting, according to the statement.

Chinh said Vietnam welcomed Adani's investment, initially in Lien Chieu Port in the central city of Danang, according to the statement.

Karan told Chinh that Adani would soon work with Vietnamese partners and stakeholders on specific investment projects in the country, according to the statement, which said the investment could reach \$10 billion over the longer term.

IN PERSPECTIVE

There won't be a Saudi Arabia of the green hydrogen age

It may change the energy sector, but green hydrogen won't replicate the dominance of the current hydrocarbon era

DAVID FICKLING

If you want a symbol of how energy is a global industry as fundamental as the trades in metals or government bonds, one image has held sway for decades: The monumental black-and-red hull of a crude oil super tanker.

It's only natural, then, that a world transitioning to cleaner sources of energy should seek out a comparable emblem for the net-zero era. A prime candidate to replace petroleum is another substance that can be moved around in tankers: green hydrogen (so-called because it's produced by using renewable energy to split apart water molecules.)

Some 400 million metric tons of hydrogen a year (not necessarily green) will be moved over long distances by 2050, according to the Hydrogen Council, which represents the nascent industry. Countries rich in cheap renewables, such as Australia, Brazil and Chile, hope to become H₂ hubs every bit as pivotal to the global economy as the Persian Gulf is in our current hydrocarbon era. Even Saudi Arabia is working on a \$8.5 billion green hydrogen plant.

Will a worldwide trade in hydrogen grow to take on the same role that the oil industry has right now? It's not likely. To see why, it's worth looking at how green hydrogen will be made, transported and used — and considering the parallels with existing flows of commodities.

One constraint on commerce since the dawn of history has been the cost of transport. Only higher-value items are worth moving over long distances. Ancient China and Rome traded silk and glassware, but not wheat and rice. It's not so different these days.

For most commodities, trade rises with increasing prices. The exceptions to that rule are telling: High-quality reserves of iron ore and crude oil are scarce globally, so consumers have no choice but to transport them from further afield. Technological innovation will never make Japan a major petroleum producer, or South Korea a powerhouse of iron ore. Geology is destiny, giving those commodities a special cachet. Green H₂ is different. No major economy faces a permanent shortage of hydrogen's raw materials: water and renewable energy.

In that sense, it more closely resembles products like gypsum and ammonia, which can be manufactured almost anywhere.

The prices of renewable energy do differ from country to country, to be sure — but not by enough to overcome the transport issue. Hydrogen is hard to move in its raw form, being highly reactive, far less dense than liquefied natural gas, and very, very cold. It only liquefies at minus 253 degrees Celsius, almost as far below the temperature of LNG as ice is from steam. The costs of chilling substances increase dramatically the colder they get.

Most plans to solve this issue involve putting the hydrogen through a reactor at either end of the journey to convert it into a more easily-transportable form, with the prime candidates being ammonia, methanol, and the toluene used in paint thinner. The amount of energy used to drive those reactions, however, pushes the costs up further. Because of that, even Brazil — with some of the cheapest renewables — will struggle to build an export trade that can compete with domestically-produced green hydrogen.

You can shave these costs somewhat if you burn ammonia directly as fuel rather than attempting to convert it back to hydrogen, but the challenges involved have thwarted engineers since World War II, and chemists are still getting to grips with the processes involved. Burning ammonia is also a potent source of NO_x particulates, one of a suite of major pollutants responsible for about 6.7 million deaths a year. It even generates nitrous oxide, a chemical that warms the atmosphere about 273 times as much as carbon dioxide that is rarely produced by current industrial activities.

Green hydrogen may yet remake the world of energy. In many parts of the world, it will be well within range of the \$7 to \$10 per million British thermal units cost of natural gas by the end of this decade, according to BloombergNEF. That should enable it to displace fossil fuels in a swath of applications requiring high-temperature heat, large-scale energy storage, or molecules for chemical compounds. What it won't do, however, is generate fleets of tankers connecting the globe. Like sulphur and ammonia — and the existing hydrogen trade that consumes nearly 100 million tons a year — it's going to be used close to the place it was produced. Many countries may aspire to become the Saudi Arabia of the green hydrogen era. None will achieve that dream.

Bloomberg Opinion



Karan Adani, CEO of Adani Ports and SEZ, said the group would work with Vietnamese partners

Adani may invest \$3 bn in Vietnam

Adani Group is exploring the possibility to invest up to \$3 billion in seaport and renewable energy projects in Vietnam, the Vietnamese government said in a statement on Wednesday.

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REUTERS

Oil India net profit surges to ₹6,810.40 cr, highest ever since its inception

NOIDA: Oil India Limited (OIL) declared its financial results on Wednesday for FY23 registering the highest-ever net profit since the company's inception at Rs 6,810.40 crore, a surge of 75.20 per cent YoY on the back of higher operating income and growth in oil & gas production.

The company, over the last 6 decades, continued its journey of growth in oil & gas production from its matured and

recently discovered oilfields during the last fiscal, with 5.5 per cent growth in oil production at 3.18 MMT and 44 per cent growth in gas production at 3.18 BCM, which scaled another height of registering the highest ever gas production by the company ever since its inception.

During the last fiscal, the company also reported the highest-ever pipeline throughput of 8.19 MMT. Aggressive



exploration of the company led to a new hydrocarbon discovery during the year in Sesabil area in the Assam shelf basin.

NRL recorded its highest ever consolidated PAT of Rs 9,854.39 crores, a growth of 46.66 per cent YoY

The company also recorded the highest-ever turnover of Rs 23,272.57 crore, a rise of 60.17 per cent YoY.

With the growth in profit, the earnings per share (EPS) of the company increased to Rs 62.80/share vis-à-vis Rs 35.85/share the previous year.

OIL Board has declared the final dividend of Rs 5.50 per share with a total dividend of Rs 20/share (face value Rs 10) for fiscal 23.

As for Q4, the company equally reported improved financial & physical performance over the corresponding

quarter of FY 22, with turnover growth of 26.15 per cent and PAT increase of 9.71 per cent.

Crude Oil and Natural Gas production also have shown growth of 6.95 per cent and 6.27 per cent respectively in Q4 YoY.

With NRL being a group company of OIL, the company recorded its highest ever consolidated profit after tax (PAT) of Rs 9,854.39 crores, a growth of 46.66 per cent YoY and a

highest ever consolidated turnover of Rs 41,038.94 crore for the fiscal, an increase of 36.75 per cent YoY.

NRL continued its remarkable track record and displayed the highest-ever crude throughput of 3,091.37 TMT in fiscal 23 with capacity utilisation of 103 per cent.

The gross refinery margin of NRL for FY23 is \$19.86/bbl vis-à-vis \$14.33/bbl for the previous year. **#P051**

Adani Group weighs \$3-b investment in Vietnam



Adani Group is exploring the possibility to invest up to \$3 billion in seaport and renewable energy projects in Vietnam, the Vietnamese government has said. The investment could reach \$10 billion over the longer term. The statement came after a meeting between Vietnamese PM and Karan Adani, CEO of Adani Ports and SEZ. REUTERS

THEIR VIEW

Green bonds and guarantees: Key tools to contain global warming

Huge sums of capital are needed for a transition and India has done well to create an enabling framework for green finance



SUDIPTO MUNDLE
is chairman, Centre for Development Studies.

The science required for a fundamental transition from fossil fuel-based to non-fossil fuel-based production is now known. Some are still at the experimental frontier or too costly to implement, but other technologies such as green hydrogen and especially renewable energy are now commercially viable and being rolled out at scale. But these are not being rolled out at anywhere near the scale required to avoid the catastrophe which awaits if average temperatures rise 1.5° Celsius above per-industrial levels. As explained in my last column (*Mint*, 28 April 2023), the binding constraint in containing global warming is finance, not technology. Can enough resources be mobilized to finance the huge investments required to bring about this fundamental technological transformation? This question was addressed in a panel discussion at the National Council of Applied Economic Research (NCAER) on 15 May 2023, led by Gautam Jain of the Columbia University Centre for Global Energy Policy, which I had the privilege of chairing. Other panellists included Gagan Sidhu of the Council for Energy, Environment and Water, Neha Sharma of Climate Bond Initiative, and Praveen Kumar of NCAER. I have drawn on Gautam Jain's presentation, among other inputs, for this column.

Let me first address the issue of legacy and responsibility. Global warming is not a consequence of emissions today. It is the consequence of cumulative emissions of CO2 over centuries which remain suspended in the atmosphere. As the accompanying table shows, just six countries account for 64% of the cumulative CO2 emissions since the industrial revolution (1751 onwards) that have driven global warming: the US (26%), China (12%), Russia (11%), Germany (6%), UK (5%) and Japan (4%). The moral responsibility of countries which account for so much of this global warming is very clear. Unfortunately, this does not count for much in global geopolitics.

For more than 30 years since the Rio de Janeiro Earth Summit of 1992, emerging market and developing economies (EMDEs) have been demanding that the 'polluter pays' principle should apply globally, as it does within countries, especially developed countries. However, that demand has had no traction. Meanwhile, time is running out. Unless massive investments are made during the next 5-7 years, the window for containing global warming below 1.5° Centigrade may close. It is best to look for more effective, timely alternatives while sustaining a discussion on the fulfilment of legacy responsibilities for compensation in the future.

One fairly robust estimate is that the required investment in clean energy projects for effective mitigation is about \$5 trillion a year. Of this, about

Polluter must pay

The current state of our environment is the result of cumulative emissions over more than a century, with just six countries estimated to account for 64% of all CO2 emissions since the industrial revolution.

Country	Cumulative 1751-2014 (Gigatons CO ₂)	% Global	Emissions 2014 (Gigatons CO ₂)	% Global	Emissions per capita 2014 (tonnes CO ₂)
China	174.7	12	10.3	30	7.5
US	375.9	26	5.3	16	16.2
India	41.7	3	2.2	6	1.7
Russia	151.3	11	1.7	5	11.9
Japan	53.5	4	1.2	4	9.6
Germany	86.5	6	0.7	2	8.9
Iran	14.8	1	0.6	2	8.3
Saudi Arabia	12	1	0.6	2	19.5
South Korea	14	1	0.6	2	11.7
Canada	29.5	2	0.5	1	15.1
Brazil	12.9	1	0.5	1	2.6
South Africa	18.4	1	0.5	1	9.1
Mexico	17.5	1	0.5	1	3.8
Indonesia	11	1	0.5	1	1.8
UK	75.2	5	0.4	1	6.5
World	1434	-	34.1	-	4.7

Source: Vinod Thomas's *Risk and Resilience in the Era of Climate Change*



20% (i.e., \$1 trillion) is the requirement for EMDEs excluding China. As against that the annual funding available this year is only \$1.4 trillion or 30%. For EMDEs (excluding China) the amount available is only \$150 billion, which is around 15% of the requirement. Can this huge gap be filled? Multilateral development banks (MDBs) cannot meet this massive financing gap. Some estimates suggest that the maximum additional annual financing that MDBs can collectively mobilize for all purposes, including climate finance, is only \$1 trillion. There is much scepticism even about this estimate (see Mundle, *Mint*, 28 April 2023, cited

above). That leaves the private sector. But private investors invest for profit, so the question arises whether climate financing can generate enough returns, adjusted for risk, to pull in private funds of around \$5 trillion a year. Important innovations here include the green bonds and allied instruments like transition bonds, sustainability bonds and sustainability linked bonds. This asset class of thematic bonds, including social bonds, originated in 2007, but it took a while for the market to accept them. During the past five years, the flow of these assets has grown annually at a phenomenal rate of 55% to a total issuance of \$3.5 trillion. There is much room for further growth, since the global bond market is estimated at \$130 trillion and green bonds, which have led the growth of this asset class with a 60% share, trade at a significant premium. Some estimates suggest that the volume of green bonds could indeed grow to the asking amount of \$5 trillion by 2025.

The catch is that global warming will have a disproportionately high impact on EMDEs compared to developed economies, but only 10% of green bonds and other thematic bonds have flowed to EMDEs (excluding China). Here, MDBs can play a key leveraging role. Foreign investors are reluctant to invest in EMDE bonds because of political and other perceived risks as well as currency risk in case of local currency bonds. MDBs can use their limited funds to provide insurance and risk guarantees which can leverage climate finance many times larger than their own funds. EMDE governments need to develop a green bond frameworks and taxonomy and also strengthen ESG mandates. This will enhance the demand for thematic bonds. India has done well by issuing a green bond framework last November. The country also undertook other measures that enabled the successful issue of two local currency bonds that have been trading at a premium.

These are the author's personal views.

SATISH KUMAR/MINT

BLOOMBERG

mint

Rupee rises 15 paise to close at 82.70 against US dollar

PTI ■ MUMBAI

The rupee appreciated by 15 paise to 82.70 against the US dollar on Wednesday, supported by foreign capital inflows.

A strong dollar against major rivals overseas and weak domestic equities weighed on the local unit and capped the appreciating bias, forex traders said.

At the interbank foreign exchange market, the local unit opened at 82.83 against the US dollar and settled at 82.70, higher by 15 paise over its previous close.

During the day, the domestic unit witnessed an intra-day high of 82.64 and a low of 82.84 in the day trade.

On Tuesday, the rupee closed at 82.85 against the US



currency.

The dollar index, which gauges the greenback's strength against a basket of six currencies, rose 0.18 per cent to 103.67.

Global oil benchmark Brent crude futures advanced 1.81 per cent to USD 78.23 per barrel.

The rupee gained on the soft dollar and FII inflows, said Anuj Choudhary - Research Analyst at Sharekhan by BNP

Paribas.

The US Dollar gained on Wednesday's safe-haven appeal as the debt ceiling impasse continues, keeping the markets nervous. Mixed to positive economic data from the US also supported the greenback, Choudhary said.

"We expect the rupee to trade with a negative bias on risk aversion in global markets and a surge in crude oil prices. Deadlock over the debt ceiling talks has deteriorated global risk sentiments.

"However, FII inflows may support the rupee at lower levels. Traders may remain cautious ahead of FOMC minutes for cues on Fed's policy meeting in June. We expect the USD/INR spot to trade between 82.30 to 83.30 in the near term," Choudhary added.