

# INDIA REWIND

**India Rewind** is a monthly update from DSP's Investment desk. It separates the alpha from the noise and aims to deliver key insights to readers, packed within a 2 minute reading time.

## "From Grey to Green: India's Hydrogen Revolution Begins!"

India currently relies heavily on natural gas to meet its hydrogen production needs. Unfortunately, India does not possess abundant reserves of gas, which poses a challenge. A noteworthy aspect is that the Indian government is projected to allocate ~\$21 billion towards fertilizer subsidies, ranking it as one of the top ten expenses for the government. A significant portion of this subsidy indirectly supports the production of Grey Hydrogen. Additionally, India stands as the 4th largest gas importer, the 3rd largest oil importer, and the 3rd largest fertilizer importer in the world. Consequently, there is a consistent and strong governmental determination to foster the growth of Green Hydrogen. Hence, no other country in the world has a bigger incentive to make Green H2 commercially viable than India!

India's renewable generation costs are among the most competitive globally, ranking as the 3rd lowest out of 22 countries. Even in onshore wind energy, India secures the 5th position. It's worth noting that renewable power constitutes ~45-65% of the production cost for Green Hydrogen at present. Additionally, Ohmium- one of the largest manufacturers has established a major manufacturing plant in India for electrolyzers, with a capacity of ~0.5 GW, making it one of the largest outside of China. As a result, India is expected to emerge as one of the top three most cost-effective suppliers of Green Hydrogen in the long run.

### India- Leading the Charge as a Green Hydrogen Cost Leader:

Renewable power currently constitutes a significant portion, ranging from ~45% to 65% of the production cost for Green Hydrogen. The exact share depends on whether round-the-clock renewable sources or solely solar power is utilized. Over time, the proportion of renewable energy used in the production of Green Hydrogen is anticipated to grow, while the overall cost is expected to decline. It comes as no surprise that India boasts one of the world's lowest costs for solar power, standing as the most affordable in Asia mainly due to cost advantages, power supply arrangements and availability of abundant sunshine. In the realm of Green Hydrogen production, the electrolyser manufacturing cost is the only additional cost consideration apart from renewable power. While China and Europe currently take the lead in this area, India has taken strides by launching the production-linked incentive scheme (PLI) with an outlay of ~USD 2.4bn and possesses the potential to emerge as a cost-effective electrolyser producer. The govt. has also launched the National Green Hydrogen Mission targeting a production capacity of 5 MMT per annum by 2030. Hence, given the low renewable power generation cost, India is expected to be one of the lowest cost Green Hydrogen producers in the world.

**Flows, Valuations and Earnings:** In YTD23, MSCI India Index returned ~-0.03% vs MSCI EM ~-0.2% and MSCI DM ~-7.6%. India has been the best-performing market across key markets globally in 2Q so far (~6% QTD). After underperforming the region by about ~30pp since late October, India has outperformed the region by ~10pp this quarter. As highlighted in the last month, strong foreign buying has continued and supported the recent rally (19 straight days of buying). FII has net bought ~US\$7bn QTD and ~US\$8.7bn since March (~US\$4.5bn YTD). Consumer Disc, Financials & Staples have seen the most inflow from Foreigners and conversely, the biggest outflow has been in Energy and Infotech. DIIs continue with the support, with inflows of ~USD 10bn in YTD23. MSCI India (~18x, 2Y Forward) is now trading at 1SD above MSCI EM and DM while in line with its long-term average.

4QFY23/1QCY23 earnings season is nearing its close with about 92% of MSCI India mkt cap (98 cos.) having reported earnings thus far. The outcomes have been robust, with MSCI India's profits for 4QFY23 showing an ~11% YoY increase and ~24% QoQ growth, primarily driven by the automotive and banking sectors. The number of companies surpassing earnings estimates (~51%) has shown significant improvement compared to the long-term average (42%). Among the sectors, Real Estate, Utilities, and Financials have recorded the highest number of beats, while IT and Pharma have experienced the most misses. On average, earnings have exceeded expectations by ~4% indicating a strong economic environment.

## Chart of the Month: India has the potential to be one the lowest-cost green hydrogen producers globally by 2050

**Green Hydrogen Production Cost Estimates (\$/kg)**

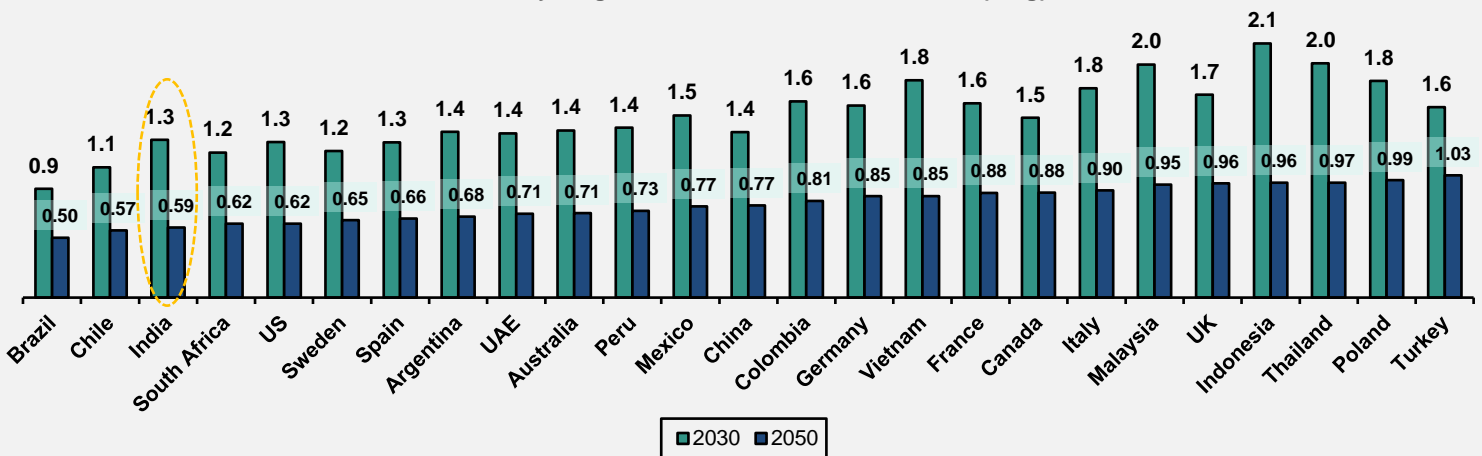


Chart Source: Bernstein Research, Info Sources: Internal, Bloomberg, UBS Research, Goldman Sachs, FII - Foreign Institutional Investor, DII- Domestic Institutional Investor, FY - Financial Year, CY - Calendar Year; YoY is Year over Year, YTD- Year to date, EM- Emerging Markets, DM- Developed Markets, MMT; Million Metric Tonnes



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[India Rewind March 2023](#)  
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## India at a Glance

	FY17	FY18	FY19	FY20	FY21	FY22	FY23	FY24E
<b>Economic Activity and Employment</b>								
GDP, USD bn	2295	2651	2701	2871	2668	3176	3390	3713
GDP per capita, USD	1767	2018	2036	2141	1969	2321	2451	2658
Real GDP growth, %	8.3	6.8	6.5	4.0	-6.6	8.7	7.2	5.3
<b>Prices, interest rates and money</b>								
CPI inflation, % y/y (average)	4.5	3.6	3.4	4.8	6.2	5.5	6.7	5.4
Repo rate, % (year-end)	6.25	6.0	6.25	4.4	4.0	4.0	6.50	6.0
10 year bond yield, % (year-end)	6.7	7.4	7.4	6.1	6.2	6.8	7.3	7.0
USDINR (year-end)	64.8	65.0	69.2	75.4	73.5	75.8	82.3	79.0
<b>Fiscal accounts</b>								
General government budget balance, % GDP	-7.0	-5.9	-5.9	-7.8	-13.9	-9.5	-9.4	-9.0
<b>Balance of payments</b>								
Trade balance, USD bn	-112	-160	-180	-158	-102	-189	-266	-250
Exports, USD bn	280	309	337	320	296	429	454	420
Imports, USD bn	393	469	518	478	398	619	720	668
Current account balance, USD bn	-14	-49	-57	-25	24	-39	-69	-55
Foreign direct investment (net), USD bn	35.6	30.3	30.7	43.0	44.0	38.6	35	38
Total FX reserves, USD bn	370	425	413	478	577	607	578	608
Total external debt, % GDP	20.5	20.0	20.1	19.5	21.4	19.1	18	15
<b>Credit ratings</b>								
Moody's	Baa3	Baa2	Baa2	Baa2	Baa3	Baa3	Baa3	Baa3
S&P	BBB-	BBB-	BBB-	BBB-	BBB-	BBB-	BBB-	BBB-
Fitch	BBB-	BBB-	BBB-	BBB-	BBB-	BBB-	BBB-	BBB-

Source: CEIC, Haver, UBS estimates; Note: Data is for FY ending March, E - Estimates

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