Prelim Bits 21-12-2021 | UPSC Daily Current Affairs

Reasons for the Fall in Stock Markets

Recently, stock markets fell sharply, with the main indices plummeting by up to 3.29% in intra-day trade.

- This fall is mainly due to the following three reasons.
- Foreign Portfolio Investors **(FPI) are pulling away their funds** from Indian markets in the wake of signals from global central banks that interest rates may go up and the rising Covid cases.
- Major global central banks like the US Federal Reserve have indicated that the 'easy money' policy will be tapered down, and **interest rates are likely to be jacked up** to tackle rising inflation.
- Also, if the US Fed and other major central banks hike rates, FPI outflows will likely intensify in the coming weeks.
- If inflation rises, the RBI is also likely to unwind its accommodative policy and hike rates next year.
- **Rising Covid cases** of the highly transmissible Omicron variant have prompted investors to be cautious.
- Investors are mostly worried about the likelihood of travel restrictions and lockdowns, which will impact the economy.
- The Indian economy, which is on the comeback trail after the disruptions of the 1st and 2nd waves of the pandemic, may take a hit if Omicron cases rise sharply.

> RBI's 'State of the economy' Report - The emergence of the Omicron strain has heightened the uncertainty in the global macroeconomic environment, accelerating risks to global trade with resumption of travel restrictions/ quarantine rules at major ports and airports.

Guidelines for Investors

- Current decline in markets driven by near term concerns is something that should not bother investors too much.
- Long-term investors should stay invested as the prospects for the Indian economy remain bright.
- Markets had plunged last year as well, but they recovered sharply as things were brought under control.
- But, as long as headline inflation and Omicron risks remain elevated, investors need to remain nimble footed as the economic recovery will probably be in a zig zag mode.

Reference

1. https://indianexpress.com/article/explained/stock-markets-bse-nse-sensex-7681591/
2. https://indianexpress.com/article/explained/indian-markets-sensex-nifty-crash-explained-76423

35/
3. https://www.businessinsider.in/stock-market/news/how-do-rising-covid-19-cases-lead-to-a-fall-in-markets/articleshow/88385905.cms

National Litigation Policy

National Litigation Policy is under consideration in order to lay down guidelines for preventing, controlling and reducing litigation, keeping in view the policy & plans of the Government, in an organized manner.

- National Litigation Policy (NLP) was formulated by the Department of Legal Affairs, the Ministry of Law and Justice in 2010.
- NLP was floated to "curtail" filing of cases before the courts or tribunals again and again on the same issue.
- This policy was formulated to bring down pendency and litigation from government agencies by making them more efficient and responsible in filing cases.
- [The Government and its agencies are the predominant litigants in courts and tribunals of the country.]
- Salient features of the policy
    1. Ensures government agencies being responsible while filing cases.
    2. Instructs to place correct facts, all relevant documents before the court/tribunal and not to mislead them.
    3. Reviews the pending cases with government as party on priority basis to enable quick disposal.
    4. Proposed a monitoring & review mechanism to sensitize the government in important cases and avoid delay and neglect of the same.

Reference

1. https://pib.gov.in/PressReleasePage.aspx?PRID=1782618
2. https://legalaffairs.gov.in/sites/default/files/status%20note%20on%20nlp_0_0.pdf
3. https://www.business-standard.com/article/current-affairs/don-t-compel-citizens-to-move-courts-again-again-follow-national-litigation-policy-hc-to-centre-121060100965_1.html

India’s First Green Hydrogen Microgrid Project

NTPC Ltd has awarded India’s first green hydrogen microgrid project at its Simhadri plant in Andhra Pradesh.

- This unique project configuration, designed in-house by NTPC, is in-line with the vision of India for becoming carbon neutral by 2070.
- **Production** - Green hydrogen is produced by splitting water into hydrogen and oxygen using the advanced 240 kW Solid Oxide electrolyzer powered by renewable energy sources like wind and solar.
- The hydrogen produced during sunshine hours would be stored at high pressure and would be electrified using a 50 kW Solid Oxide Fuel Cell.
- The system would work in standalone mode from 5PM in the evening to 7AM in the morning.
- **Significance** - This green hydrogen microgrid project is the precursor to large scale hydrogen energy storage projects.
- It would be useful for studying and deploying multiple microgrids in various off grid and strategic locations of the country.

- This unique project would open doors for decarbonising the far-off regions of the country like Ladakh, J&K etc., hitherto dependent on diesel generators.
- The Green Hydrogen fuel can be a game-changer for the energy security of India, which imports 85% of its oil and 53% of gas requirements.
- To promote clean fuels, India is considering making it mandatory for fertilizer plants and oil refineries to purchase green hydrogen.

Types of Hydrogen

- **Green hydrogen** is the one produced with no harmful greenhouse gas emissions.
- It is made by using clean electricity from surplus renewable energy sources, such as solar or wind power, to electrolyse water.
- Electrolysers use an electrochemical reaction to split water into its components of hydrogen and oxygen, emitting zero-carbon dioxide.
- As its production is expensive, green hydrogen currently makes up a small percentage of the overall hydrogen.
- **Blue hydrogen** is produced mainly from natural gas, using steam reforming process, which brings together natural gas and heated water in the form of steam.
- Blue hydrogen is sometimes described as 'low-carbon hydrogen' as the steam reforming process produces carbon dioxide as a by-product.
- That means carbon capture and storage (CCS) is essential to trap and store this carbon.
- **Grey hydrogen** is the most common form of hydrogen production.
- It is created from natural gas, or methane, using steam methane reformation but without capturing the greenhouse gases made in the process.
- **Black & brown hydrogen** are produced using black coal or lignite (brown coal) in the hydrogen-making process. They are also produced from other fossil fuels through the process of 'gasification'.
- They are the absolute opposite of green hydrogen. They are the most environmentally damaging hydrogen in the hydrogen spectrum.
- **Pink hydrogen** is generated through electrolysis powered by nuclear energy. Nuclear-produced hydrogen can also be referred to as purple hydrogen or red hydrogen.
- In addition, the very high temperatures from nuclear reactors could be used in other hydrogen productions by producing steam for more efficient electrolysis or fossil gas-based steam methane reforming.
- **Turquoise hydrogen** is made using a process called methane pyrolysis to produce hydrogen and solid carbon.
- In the future, turquoise hydrogen may be valued as a low-emission hydrogen, dependent on the thermal process being powered with renewable energy and the carbon being permanently stored or used.
- **Yellow hydrogen** is a relatively new phrase for hydrogen made through electrolysis using solar power.
- **White hydrogen** is naturally-occurring geological hydrogen found in underground deposits and created through fracking.
- There are no strategies to exploit this hydrogen at present.

Reference

1. https://pib.gov.in/PressReleaseIframePage.aspx?PRID=1781633
2. https://www.livemint.com/industry/energy/ntpc-awards-india-s-first-green-hydrogen-microgrid-project-at-simhadri-plant-1163955860042html
3. https://www.nationalgrid.com/stories/energy-explained/hydrogen-colour-spectrum

Issues with Mandatory Iron Fortification

India has decided to mandatorily fortify foods with iron. But there are many risks associated with it.

- Iron is not safe in excess; it is an oxidant that increases the risk for many non-communicable diseases.
- Iron Fortification of any one staple (rice, wheat, or salt) will increase serum ferritin without necessarily changing haemoglobin level.
- A U.S. Studies have shown that those with high ferritin level had a four-fold higher risk of having diabetes.
- The Comprehensive National Nutrition Survey of adolescents of India shows that the high serum ferritin level has increased the risk of high blood sugar, high blood lipids and high blood pressure.
- **Issues - Risk of chronic disease** is very high in our children, and we will implement this veiled threat of risk magnification by mandatory cereal fortification.
- When mandatory fortification is enforced in parts of the population that do not need this, it **removes their choice of foods** and could even be unethical if the risk of other morbidities is increased.
- **Iron deficiency in the Indian diet is not a universal problem**: the requirement for iron has been lowered by half to two-thirds in 2020.
- Rice fortification has not been shown to work in a combined analysis of all available and rigorous studies.
- **Solution** - India must await the forthcoming WHO haemoglobin cut-offs to get to the true anaemia burden and only rely on gold-standard venous blood haemoglobin in future surveys.
- Dietary modification strategies should be the preferred solutions.
- Cereal intake is already too high, and should be replaced by more quality foods like pulses, fruits and vegetables, etc.
- With the ever-expanding health care infrastructure (Ayushmaan Bharat and associated clinics), we must move to equity for all in precision treatment - Evaluating the cause of anaemia and prescribing treatment.

Reference

https://www.thehindu.com/sci-tech/science/inescapable-risks-of-mandatory-iron-fortification/article37986787.ece

Lesser Florican

The longest in-country migration route of lesser floricans has been tracked for the first time from Rajasthan to Maharashtra.

- Lesser florican (*Sypheotides indicus)* is a small and slender bird species belonging to the bustard group, found in tall grasslands.
- There is a recovery programme launched for this bird by the Dehradun-based Wildlife Institute of India (WII).
- The endangered bird is observed in Rajasthan, Madhya Pradesh, Gujarat and some other regions during the monsoon season, when it breeds and later disappears with its chicks to unknown places.

Protection Status	
IUCN	Critically Endangered

Reference

https://www.thehindu.com/news/national/other-states/longest-in-country-migration-route-of-lesser-florican-from-rajasthan-tracked/article37833691.ece