

## **Prelim Bits 26-09-2018**

### **Financial Inclusion Index**

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- Department of Financial Services under Ministry of Finance has launched Financial Inclusion Index (FDI).

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- The index has taken into account three factors. They are,

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1. Access to financial services

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2. Usage of financial services and

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3. Quality of financial services.

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- The index will be a measure of access and usage of various financial products and services.

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- The services includes savings, remittances, credit, insurance and pension products.

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- It enables fulfilment of G20 Financial Inclusion Indicators requirements.

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### **Human Capital Score**

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- A recent study that ranks countries for their levels of spending on education and health care has been published in Lancet.

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- The study was conducted by the Institute for Health Metrics and Evaluation (IHME) at the request of the World Bank.  
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- It is the first ever scientific study ranking countries for their levels of human capital.  
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- Finland topped the score and turkey showed the most dramatic increase in human capital between 1990 and 2016.  
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- India ranks 158th in the world for its investments in education and health care. It was ranked 162 in 1990.  
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- India is placed behind Sudan (ranked 157th) and ahead of Namibia (ranked 159th) in the list.  
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- The U.S. is ranked 27th, while China is at 44th and Pakistan at 164th.  
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- Countries in the South Asian region that have fared better than India in terms of human capital include Sri Lanka (102), Maldives (116), , Bhutan (133), Nepal (156).  
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## **Amitava Roy Panel**

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- Supreme Court has recently set up a panel headed by retired SC Judge Amitava Roy Panel to look in to prison reforms and decongest crowded jails.  
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- The panel will examine way and means to prevent violence against inmates, get the required legal aid and rehabilitate them.  
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- It will also examine the feasibility of setting up more open prisons.  
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- It will examine the functioning of undertrial review committees, availability of legal aid and advice, grant of remission, parole and furlough.  
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## **Young Asteroids**

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- Brazilian scientists have recently identified four young asteroids which are less than 7 million years old.  
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- It orbits between Mars and Jupiter as part of a grouping known as the Main Asteroid Belt.  
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- The Main belt is an extraordinary niche of asteroids, with more than 700 known objects.  
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- The key parameters used for identification are longitudes of pericentre and ascending node.  
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- For a planet, comet or asteroid moving around the Sun in an elliptical orbit, the pericentre is the point at which it comes closest to the Sun.  
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- The ascending node is the point at which the orbit crosses from the southern side of the ecliptic plane, to the northern side.  
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## **New Telescope in India**

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- Tata Institute of Fundamental Research (TIFR) and Bhabha Atomic Research Centre (BARC) are developing a new gamma ray telescope in Ladakh.  
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- It will be the second such telescope to be available globally.  
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- The first one is in La Palma in Canary Islands set up jointly by Switzerland and Germany in 2011.  
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- It will be located near the High Altitude Gamma Ray (HAGAR) array at Hanle in Ladakh.  
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- HAGAR houses the Indian Astronomical Observatory operated by Indian Institute of Astrophysics, Bengaluru.  
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- It will work in tandem with MACE (Major Atmospheric Cerenkov Experiment), a gamma ray imaging telescope which is also under installation at Hanle.  
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- It will be able to operate in bright environment like twilight hours and moonlit nights, unlike traditional ones that operate only in dark hours of the night.

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- It will be used to observe and monitor spectacular celestial events like explosion of stars, falling of matter into black holes and collision of extraterrestrial objects better.

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## **WAYU**

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- It is a device developed by the National Environmental Engineering Research Institute (NEERI), Nagpur-based laboratory of the Council of Scientific and Industrial Research (CSIR).

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- It is to address air pollution at high traffic zones, which have lot of buildings in the neighbourhood leading to restricted flow of air called "Street Canyon" effect.

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- **Working** - A fan sucks air around the device and pollutants like dust and particulate matter are separate using three filters of different dimensions.

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- The air is led into a specially designed chamber where carbon monoxide and hydrocarbons content in the air are oxidized.

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- After oxidation, the pollutants will turn into less harmful carbon dioxide using activated carbon coated with titanium dioxide.

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- The purified air is then ejected with force into the atmosphere so as to help dilute pollutant content in the outside air.

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**Source: PIB, The Hindu, The New Indian Express**

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