

Course correction – So close, yet so far: On Chandrayaan 2 lander debacle

Chandrayaan 2 might have failed in an objective, but the mission itself is not a failure

The Indian Space Research Organisation (ISRO) came tantalisingly close to creating history in the early hours of September 7 when the robotic lander Vikram followed the predetermined descent trajectory and came just within 2 km of the lunar surface before contact was lost. While it is unfortunate that the lander failed to safely touchdown, it is apt to remember that ISRO was attempting powered landing for the first time. To put it in perspective, there have been 38 attempts so far by other countries to land a rover on the moon and have succeeded only a little more than half the time. This April, Israel's Beresheet lunar lander crashed to the lunar surface. But early January this year, China's Chang'e-4 touched down on the lunar far side and deployed the Yutu-2 rover to explore the South Pole-Aitken basin. In Vikram, the velocity was successfully reduced from about 6,000 km per hour at the start of the descent at 35 km altitude to a few metres per second before communication snapped. That strongly indicates that powered landing went as per plan till about 2 km altitude from the lunar surface.

While the powered landing of Vikram and exploration of the moon's surface for 14 earth days by the Pragyan rover were one of the main objectives of Chandrayaan 2, it is wrong to think that the mission itself has failed. On the contrary, 90-95% of the mission objectives have already been "accomplished". The orbiter is safe in the intended orbit around the moon. And with the "precise launch and mission management", its life span will extend to almost seven years. Carrying eight of the 13 payloads, the orbiter will spend the next nearly seven years making high-resolution maps of the lunar surface, mapping the minerals, understanding the moon's evolution, and most importantly looking for water molecules in the polar regions. Some of the impact craters in the South Pole are permanently shadowed from sunlight and could be ideal candidate sites to harbour water. Water on the moon would, in principle, be used for life support and manufacturing rocket fuel. With the U.S. wanting to send astronauts to the South Pole by 2024, the National Aeronautics and Space Administration (NASA), in particular, will be keen on data from the Chandrayaan 2 orbiter. The ISRO's Moon Impact Probe and NASA's Moon Mineralogy Mapper on board Chandrayaan 1 had already provided evidence of the presence of water in the thin atmosphere of the moon, on the surface and below. A NASA study last year found regions, within 20° of each pole in general and within 10° in particular, showed signs of water. The Chandrayaan 2 orbiter will now possibly reconfirm the presence of water on the moon.

Meanings of Difficult Words :

- **objective** (noun) – aim, intention, purpose.
- **tantalizingly** (adverb) – excitingly, interestingly, fascinatingly.
- **lander** (noun) – a spacecraft designed to land on the surface of a planet/moon. A lander is immobile, and maintains its fixed position once it has landed.
- **descent** (noun) – an act of moving downwards; going down, coming down.
- **trajectory** (noun) – course, route, path.
- **lunar** (adjective) – it refers to the Moon.
- **touchdown** (noun) – the moment at which a part of a spacecraft make contact with the ground during landing; arrival, coming in.
- **put something in perspective** (phrase) – to compare something with a similar thing to give a clearer, more accurate idea.

- **rover** (noun) – a space exploration vehicle designed to move and explore the surface of a planet or moon. A rover is mobile, and has wheels with which it can move.
- **touch down** (phrasal verb) – (of an aircraft) land, alight, come down.
- **deploy** (verb) – use, utilize, employ.
- **velocity** (noun) – speed (in general use).
- **altitude** (noun) – height, elevation, distance above the ground/sea.
- **snap** (verb) – break, separate, split.
- **exploration** (noun) – investigation, search, inspection (of an area for natural resources).
- **rover** (noun) – a space exploration vehicle designed to move and explore the surface of a planet or moon. A rover is mobile, and has wheels with which it can move.
- **on the contrary** (phrase) – in contrast, just the opposite, conversely.
- **accomplish** (verb) – achieve, complete, fulfil.
- **orbiter** (noun) – a spacecraft designed to go into orbit of a planet or other celestial body without landing on its surface.
- **span** (noun) – period, time, duration.
- **payload** (noun) – it can be a satellite, space probe, or spacecraft carrying instruments and others which are (not fuels) used for a rocket's operation.
- **evolution** (noun) – development, advancement, growth/rise.
- **look for** (phrasal verb) – search for, try to find, look around for.
- **crater** (noun) – cavity, hole, hollow.
- **candidate** (adjective) – prospect, hopeful, expectant.
- **harbour** (verb) – shield, protect; accommodate, lodge, take in.
- **keen on** (phrasal verb) – interested in, passionate about, attracted/fascinated by.
- **mineralogy** (noun) – the scientific study of minerals.

Course correction – **On the edge: On economic slowdown**

Far-reaching reforms may be inevitable to keep the economy from stalling

India's deepening slowdown has now left the economy on the verge of stalling. The latest estimates for GDP show year-on-year growth in the April-June period slid for a fifth straight quarter to 5%, the slowest pace in more than six years. Disconcertingly, the mainstay of demand — private consumption spending — slumped to an 18-quarter low, with the expansion decelerating sharply to 3.1%, from 7.2% in the preceding quarter and 7.3% a year earlier. Gross fixed capital formation (GFCF), a proxy for investment activity, grew a meagre 4%, less than a third of the 13.3% growth it posted 12 months earlier. The RBI had, in its annual report released on Thursday, noted that indicators of GFCF had shown either moderation or contraction in the fiscal first quarter and pointed specifically to gross value added (GVA) by the construction industry, which government data revealed had eased to a 5.7% pace, from 9.6% in the year-earlier period. With demand for manufactured products ranging from cars and consumer durables to even biscuits having sharply diminished, manufacturing GVA growth plunged to an eight-quarter low of 0.6%. In fact, save mining, electricity and other utility services and public administration and defence, all the five other contributors to overall GVA weakened from a year earlier. And as the RBI observed in its last monetary policy statement, consumer confidence gauged by its July survey has

worsened appreciably, with 63.8% of respondents expecting discretionary spending to stay at the same level or shrink one year ahead. The comparable reading in June 2018 was 37.3%.

That the government is cognisant of the gravity of the situation is evident from its recent slew of policy pronouncements including tweaks to investment norms to draw more Foreign Direct Investment, moves to relieve the debilitating sales slump in the auto sector and a sweeping consolidation of public banks. Any beneficial impact from these measures will, however, take time to feed into the economy and time is a luxury that the faltering economy can ill afford, especially given the global headwinds. With the farm sector still stuck in a low income trap and this year's mercurial monsoon rains, leaving some parts flooded and others still facing deficits and engendering a shortfall in kharif sowing, rural demand is unlikely to return any time soon. Also, with the RBI's four interest rate reductions since the start of 2019 having, so far, failed to incentivise credit-fuelled consumer spending and business investment to any significant degree and with limited fiscal headroom to try and prime the pump with increased expenditure, big, bold structural reforms may be the only way out. The government must lose no time in consulting with the widest possible spectrum, including the Opposition, and then implement the agreed-on reforms prescriptions to reinvigorate demand and investment.

Meanings of Difficult Words :

- **on the edge (of)** (phrase) – on the brink of, on the verge of a situation; at a crucial or critical point.
- **slowdown** (verb) – economic decline, recession, slump/depression.
- **far-reaching** (adjective) – important, major, significant.
- **inevitable** (adjective) – necessary, compulsory, required.
- **stall** (verb) – slow down, stop making progress.
- **Gross domestic product (GDP)** (noun) – a measure of economic activity in a country. It is the total value of a country's annual output of goods and service.
- **year-on-year** (adjective) – year over year (for comparison).
- **slid** past & past participle of **slide** (verb) – sink, fall, drop, plunge/decline.
- **disconcertingly** (adverb) – discomfitingly, unsettlingly, disturbingly.
- **mainstay** (noun) – central component, centrepiece, chief support, backbone.
- **consumption spending/expenditure** (noun) – the spending by households on goods and services, excluding new housing.
- **slump** (verb) – decline, worsen, slide/fall.
- **decelerate** (verb) – slow down, reduce speed, slack up.
- **preceding** (adjective) – previous, prior, earlier.
- **proxy** (noun) – a number used to indicate the value of something in calculation.
- **meagre** (adjective) – small, little, modest.
- **indicator** (noun) – measure, index, gauge.
- **moderation** (noun) – weakening, reduction, decrease.
- **contraction** (noun) – decline, decrease, reduction.
- **gross value added (GVA)** (noun) – it is a measure of total output and income in the economy. It provides the rupee value for the amount of goods and services produced in an economy after deducting the cost of inputs and raw materials that have gone into the production of those goods and services. It also gives sector-specific picture like what is the growth in an area, industry or sector of an economy. On the other hand, GDP or gross domestic product is a measure of economic activity in a country. It is the total value of a country's annual output of goods and service.
- **fiscal** (adjective) – financial.
- **consumer durables** (noun) – manufactured products/goods (such as TV, fridge, AC, motorbike, car & etc) which last for an extended period of time.
- **plunge to** (verb) – fall sharply/steeply, plummet, drop rapidly, slump.

- **gauge** (verb) – measure, determine, ascertain.
- **appreciably** (adverb) – considerably, substantially, significantly.
- **respondent** (noun) – litigator, opponent, disputant.
- **discretionary** (adjective) – optional, non-compulsory/non-mandatory, voluntary.
- **shrink** (verb) – lessen, reduce, decrease.
- **cognisant** (adjective) – aware, well informed about, familiar with.
- **gravity** (noun) – seriousness, importance, profundity, significance.
- **slew of** (noun) – a large number of, lot, range.
- **foreign direct investment (FDI)** (noun) – Investment from one country into another (normally by companies rather than governments) that involves establishing operations or acquiring tangible assets, including stakes in other businesses.
- **relieve** (verb) – alleviate, mitigate, assuage/appease.
- **debilitating** (adjective) – weakening, exhausting, impairing/paralyzing.
- **sweeping** (adjective) – thorough, complete, total.
- **consolidation** (noun) – strengthening, reinforcement, stabilization.
- **luxury** (noun) – blessing, benefit, advantage.
- **faltering** (adjective) – indecisive, irregular/unsteady, fluctuating.
- **ill afford** (phrase) – ill-affected, ill-afford.
- **headwinds** (noun) – (in business) situations or conditions that make growth harder/difficult. Whereas tailwinds describe a situation or condition that will move growth, revenues, or profits higher.
- **low income trap** (noun) – the phenomenon of an economies stagnating at low-income levels (of per capita income) and failing to graduate into the ranks of middle or high-income countries.
- **mercurial** (adjective) – unpredictable, volatile/moody, changeable.
- **deficit** (noun) – shortfall, deficiency, shortage.
- **engender** (verb) – cause, produce, create (a situation).
- **shortfall** (noun) – deficit, inadequacy/deficiency; shortcoming/defect.
- **kharif crops/sowing** (noun) – monsoon crops; seeds sowing in the beginning (Jun) of the monsoon and harvesting at the end of the season (Oct) in the South Asia.
- **incentivise** (verb) – encourage, motivate, galvanize.
- **headroom** (noun) – scope, clearance, extent.
- **lose no time** (phrase) – be quick, hurry up, move quickly, go fast.

- **spectrum** (noun) – range, gamut, sweep; a wide range of positions, opinions, etc. between two extreme points.
- **prescription** (noun) – (authoritative) recommendation, method, measure.
- **reinvigorate** (verb) – revive, bring back; fortify, strengthen.

Course correction – **Calls of duty that'll hurt the U.S. economy**

The Trump administration's latest set of tariffs, and China's retaliatory levies, take the world closer to a slowdown

Over the past few weeks, the trade war between the U.S. and China has seen a significant escalation. On August 20, the U.S. administration notified its decision to impose 15% tariffs, in two phases, on imports valued at \$300 billion. The latest round of tariff increases implies that the country has imposed tariffs on almost all of its product imports from China, totalling nearly \$540 billion in 2018. Pharmaceutical imports are the only major exception.

Immediately after the U.S. administration issued the notification, China announced additional tariffs on more than 5,000 products imported from the U.S. valued at \$75 billion. The sensitive sectors of agriculture and forestry were targeted. Tariffs were also hiked for the first time on crude oil. On September 2, China raised the ante further by initiating a dispute in the World Trade Organization (WTO) against the U.S.'s unilateral tariff increases.

Earlier, the U.S. administration had targeted China primarily for what it perceived to be violations by the latter of intellectual property rights (IPRs) of American companies. The administration's argument was that Beijing was forcing these companies to transfer their proprietary technologies. In fact, on this issue, the U.S. became the judge and the jury by indicting China for indulging in "forced technology transfer" and then bringing penal provisions against its imports using the provisions of the Trade Act of 1974. The provisions of this Act (like Section 301) allow the U.S. to "investigate" any country which, in its opinion, has violated IPRs of American companies. If found "guilty", the violating countries can be sanctioned with trade retaliation. The tariff increases against Chinese products were tantamount to trade retaliation. It needs to be further mentioned here that Section 301 actions are a violation of WTO rules as disputes must be resolved by the organisation's dispute settlement mechanism.

'Currency manipulator' label

However, while triggering the most recent escalation, the U.S. administration not only violated the spirit of multilateralism, it also shifted the goalposts. This time, the action was triggered when the U.S. Secretary of Treasury, Steven Mnuchin, invoked the provisions of Section 3004 of the Omnibus Trade and Competitiveness Act. This Section authorises the Treasury Secretary to examine whether the U.S.'s trade partners are manipulating the "rate of exchange for purposes of preventing effective balance of payments adjustments or gaining unfair competitive advantage in international trade".

Earlier, Mr. Mnuchin had in August called the U.S.'s largest trade partner a "currency manipulator", the first time Washington used the label against any country since 1994. Mr. Mnuchin's determination was based on a report presented to the U.S. Congress last year that concluded that China's "exchange rate practices continue to lack transparency, including its intervention in foreign exchange markets", although it found that "direct intervention in foreign exchange markets by the People's Bank of China" over the past several months was limited. Beijing was targeted for the "long history of facilitating an

undervalued currency through protracted, large-scale intervention in the foreign exchange market," said the Department of Treasury.

The latest action by the Trump administration raises at least two sets of issues. The first concerns its pursuit of unilateralism, an anathema in the post-War economic governance framework underlined by the principles of multilateralism. Since the coming of the Trump Administration, the U.S. has repeatedly undermined these principles. The country has challenged the framework of multilaterally agreed rules in two ways — first by not allowing WTO members to conduct negotiations so that the rules respond to the needs of the members, especially the lesser developed countries; and second, by making the dispute settlement mechanism non-functional. A critical component of the dispute settlement mechanism is the Appellate Body, which needs seven members to function effectively. But the U.S. administration has refused to allow retiring members of the Appellate Body to be replaced by new members, and this has brought the dispute settlement mechanism to the brink.

Second, nearly a year and a half after the trade war was officially announced in Washington, one question that begs an answer is: Have the American people gained anything from the exertions of the administration? Are there any signs that President Trump's vision of 'Making America Great Again' is gaining further traction?

Small impact on trade deficit

We will consider the pattern of trade flows over the past year to see if tariffs were able to reduce U.S.'s dependence on China. In 2018, almost nine months of which saw the trade war playing out, the U.S.'s trade deficit vis-à-vis China reached a record high of over \$419 billion, nearly 12% higher than that in the previous year and the steepest increase since 2010. In the last five months of 2018, when the tariffs were introduced by both countries, the trade deficit was \$196 billion, 15% higher than that in the corresponding period in 2017. In other words, the tariffs did not reduce the deficit. In the first half of the current year, the U.S.'s trade deficit reduced by about 10% and while imports from China declined by \$31 billion, exports to China also declined by \$12 billion. Thus, the U.S. was not left untouched by the trade war.

There is hardly any doubt that the latest round of tariff increases would hurt the U.S. economy even more since China has targeted agriculture and crude oil, two of the most sensitive sectors. An impact on these sectors could adversely affect President Trump politically because people and companies associated with these areas are among the President's major funders. Further, since the current round of tariffs target products like garments, toothbrushes, footwear, toys and video games, the U.S.'s consumer goods markets would be impacted quite considerably. Clearly, the administration is worried about the price increases following the imposition of tariffs on some of these goods, a reason it has postponed the tariff increases until after the Christmas purchases.

The timing of the latest escalation could not have been worse; it could bring the global economy closer to an economic slowdown, much earlier than its predicted onset in 2020.

Meanings of Difficult Words :

- **call of duty** (phrase) – the feeling that you must do something because it is your duty.
- **retaliatory tax/levy** (noun) – another name for punitive tax, tit-for-tat tax; An extra tariff/tax that a country charges on import goods from another country to punish the another country for charging tax on its own export goods.
- **slowdown** (noun) – economic decline, recession, slump/depression.

- **trade war** (noun) – a condition in which a country increase tariffs on foreign goods and impose quota restrictions to restrict other countries' trade.
- **escalation** (noun) – intensification; an increase in the intensity of something.
- **imply** (verb) – say indirectly, suggest, hint.
- **impose on** (verb) – force, thrust, inflict.
- **raise/up the ante** (phrase) – to increase demands (in a tough condition) even though it has risks.
- **forestry** (noun) – forest management, forest planting, tree growing/forestation.
- **unilateral** (adjective) – relating to a method of taking decisions (on international relations) by a state (country) individually without considering other states (countries).
- **perceived** (adjective) – regarded, observed; considered/supposed.
- **intellectual property rights (IPRs)** (noun) – the rights given to persons over the creations of their minds. The IPRs are legal rights that protect creations and/or inventions resulting from intellectual activity in the industrial, scientific, literary or artistic fields.
- **indulge in** (verb) – become involved in (an undesirable activity).
- **provision** (noun) – term, clause, requirement.
- **guilty** (noun) – culprit, offender, wrongdoer.
- **sanction** (verb) – impose a sanctions (**sanctions** (noun) – action taken, or an order given to force a country to obey international laws by limiting or stopping trade with that country, by not allowing economic aid for that country, etc (Courtesy: VOA Learning English).).
- **retaliation** (noun) – revenge, vengeance, counter-attack.
- **tantamount to** (adjective) – equivalent to, amounting to, more or less.
- **currency manipulator** (noun) – the countries which weaken their currencies to lift exports. They've included China, which held down the value of its currency in the past to speed its economic development.
- **spirit** (noun) – ethos, morale/ethics, essence/principles.
- **multilateralism** (noun) – a method of coordinating relations between groups of three or more states (countries).
- **move/shift the goalposts** (phrase) – to change the rules/conditions.
- **invoke** (verb) – cite, refer to, adduce.
- **omnibus** (noun) – the Latin word meaning "for all"; comprising several items.
- **manipulate** (verb) – misrepresent, falsify, distort.
- **facilitate** (verb) – make easier, clear the way for, assist/help.

- **protracted** (adjective) – sustained, prolonged, extensive.
- **pursuit** (noun) – aspiration for, quest for, search for.
- **unilateralism** (noun) – a method of taking decisions (on international relations) by a state (country) individually without considering other states (countries).
- **anathema** (noun) – a curse; bane, evil.
- **framework** (noun) – structure, scheme/system, organisation.
- **underline** (verb) – emphasize, highlight, focus on.
- **undermine** (verb) – weaken, spoil, damage.
- **negotiation** (noun) – discussion, conference, deliberation.
- **appellate** (noun) – (of a court) dealing with cases on appeal to review the decision of a lower court.
- **(on) the brink** (phrase) – on the edge/verge of difficult/dangerous situation; at a crucial or critical point.
- **beg the question** (phrase) – raise a point; invite question.
- **exertion** (noun) – effort, strain, hard work.
- **traction** (noun) – popularity, acceptance.
- **trade deficit** (noun) – a trade deficit (a deficit in the balance of trade) occurs when the value of a country's imports exceeds that of its exports. It is also called a trade gap.
- **play out** (phrasal verb) – happen, occur, take place.
- **vis-a-vis** (preposition) – in relation to, with regard to.
- **steepest** (superlative adjective) of **steep** (adjective) – sharp, sudden, rapid.
- **deficit** (noun) – shortfall, deficiency, shortage.
- **adversely** (adverb) – unfavourably, disadvantageously, badly.
- **onset** (noun) – start, beginning, appearance.


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