US Stock Express

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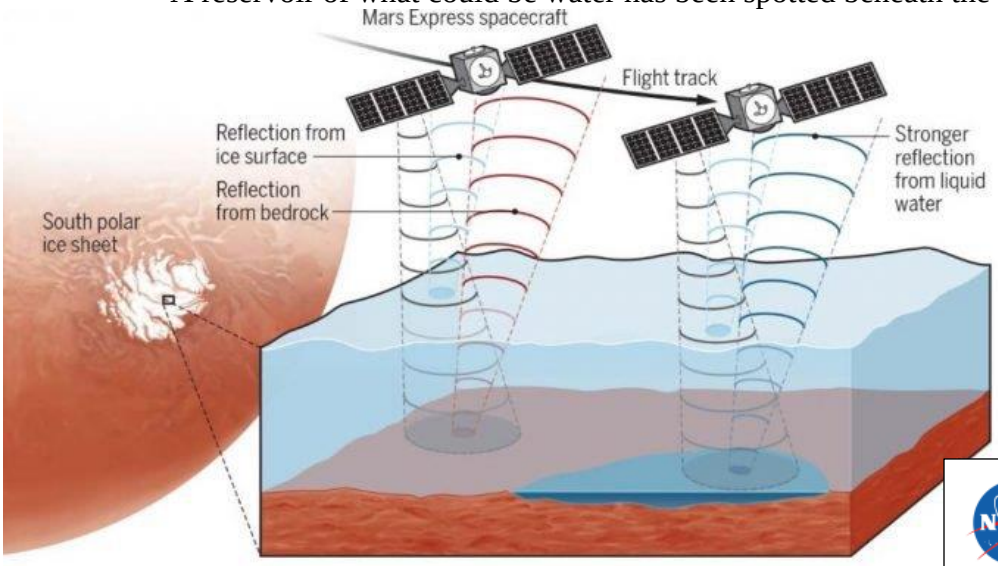
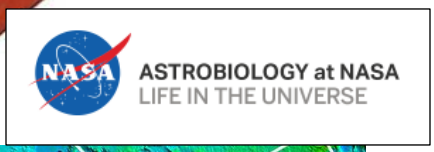
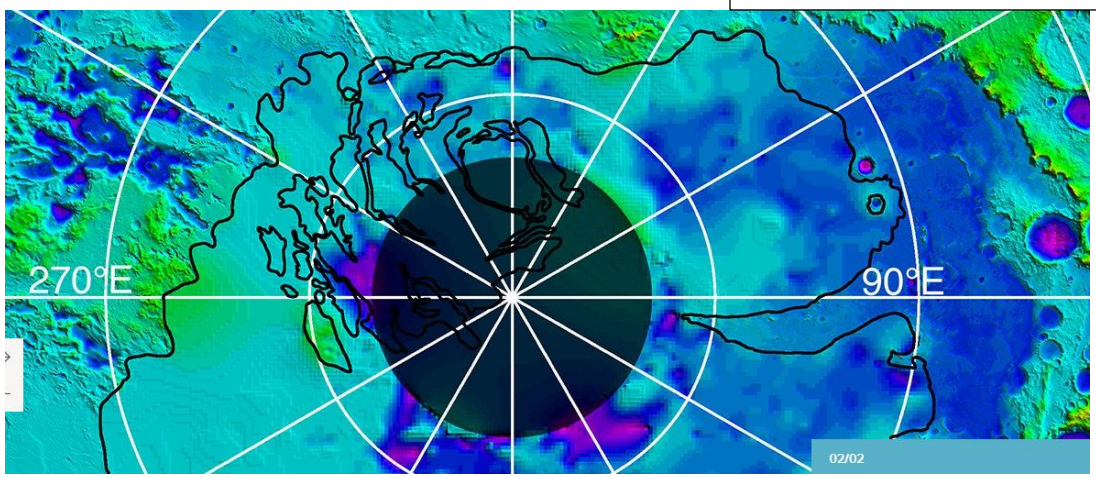
Large Reservoir of Liquid Water Found Deep Below the Surface of Mars

A reservoir of what could be water has been spotted beneath the South Pole of Mars.







[Large Reservoir of Liquid Water Found Deep Below the Surface of Mars | News | Astrobiology]

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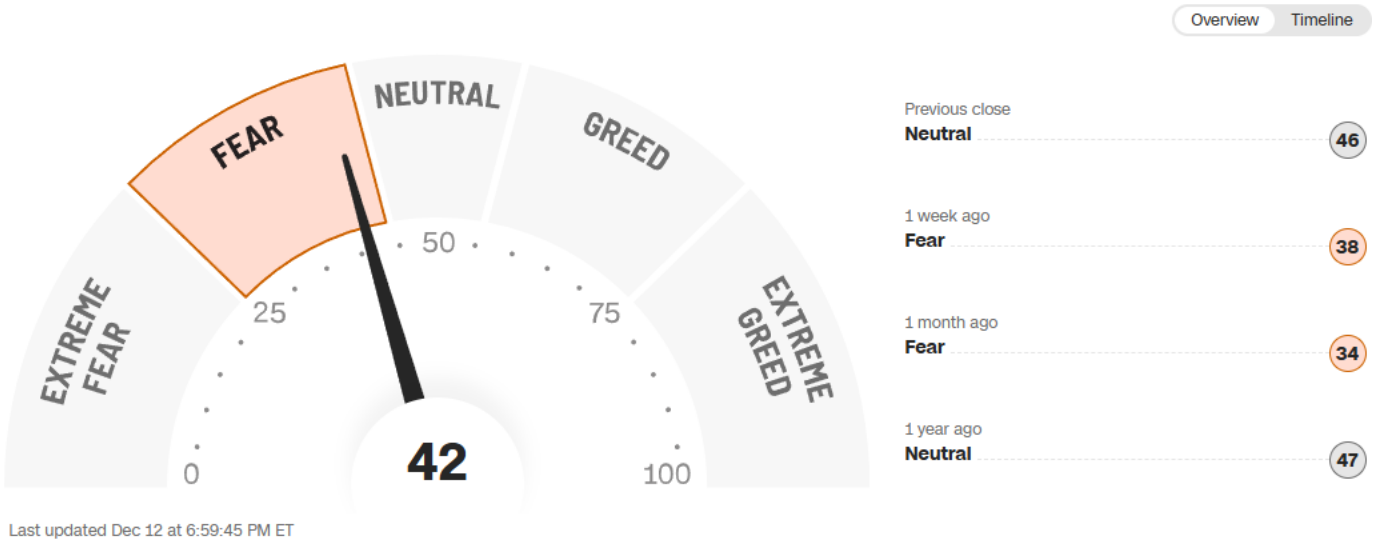
Copy trading cannot replicate another trader's background or psychological state.

Fear & Greed Index

What emotion is driving the market now?
Learn more about the index



North East West South is *NEWS*

Far beneath the frigid surface of the South Pole of Mars is probably the last place where you might expect the first large body of Martian liquid water would be found. It's -170 F on the surface, there are no known geothermal sources that could warm the subterranean ice to make a meltwater lake, and the liquid water is calculated to be more than a mile below the surface. Yet signs of that liquid water are what a team of Italian scientists detected — a finding that they say strongly suggests that there are other underground lakes and streams below the surface of Mars. The scientists described the subterranean lake they found as being about 20 kilometers in diameter.

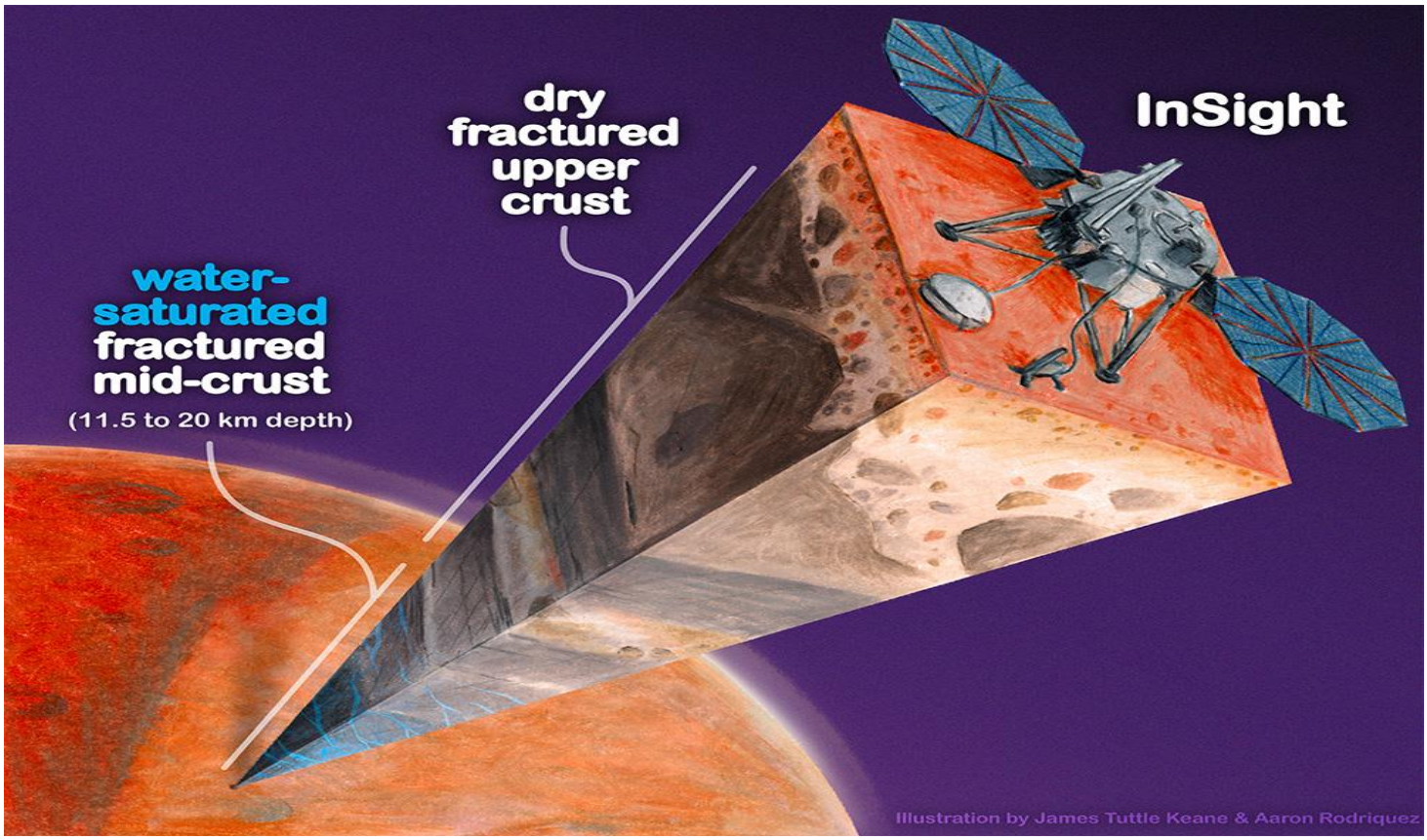
South Korea sets bold goal to build a moon base and land on Mars by 2045.

TIME magazine announced its 2025 Person of the Year, honouring designers of artificial intelligence (AI). A photo posted on social media platform X shows a group of tech leaders sitting on a steel beam, including NVIDIA CEO Jensen Huang, AMD CEO Lisa Su, and Elon Musk, the world's richest man.

Venezuelan opposition leader María Corina Machado successfully crossed the border illegally, but arrived in Norway after the Nobel Peace Prize ceremony had concluded. Her daughter accepted the award on her behalf. She was banned from running for president last year, while Maduro won a third six-year term. The election was widely considered unfree and unfair internationally, and many countries consider his regime illegitimate.

EU countries have reached an agreement to indefinitely ban the return of Russian assets frozen in the EU to Russia. The frozen funds will only be returned to Russia in one scenario: if Russia provides reparations to Ukraine after the end of its war of aggression against Ukraine.

Both DXYZ and SATS rose sharply on the news of IPO in December.



A cutout of the Martian interior beneath NASA's Insight lander. The top 5 kilometers of the crust appear to be dry, but a new study provides evidence for a zone of fractured rock 11.5-20 km below the surface that is full of liquid water — more than the volume proposed to have filled hypothesized ancient Martian oceans.

Even Rocket Lab is a competitor of Space X, also rockets up.

World Observation

Day 1391
Russia/Ukraine Conflict

Mars Landing 2030

(1) Battle of landing reignites

Since early this year, The Express has been pushing for numerous times to ask investors to buy Mars related stocks "*before it is too late*". For during the AI trend and you go to buy AI stocks, you will find they are very high and risky, a lot of stocks are on record high or near record high. Making copy trade is like that. You can never be the fore runner.

Subconsciously, every retail investor wishes to run faster than the market, and detect a rising stock before others detect it. Therefore, making copy trade can never fulfil your wish. During an adjustment, everyone is having their treasure hunting, hoping to find out a star of tomorrow. When you aim at stocks of AI, they were already too hot, that's why I asked investors to aim at Mars landing stocks for so many times.

Currently, there are 5 countries involved in the exploration of Mars, they are US, Russia (Soviet Union), China, United Arab Emirates and EU. The European Space Agency just announced last week to invite Taiwan to join their project after they have successfully launched out their satellite, while the NASA already asked Taiwan to join one of their subsidiary projects in 2024. By the way, Japan and South Korea already announced their plan of Mars exploration and will start soon.

The Apollo Project of Moon Landing sent their astronauts to Moon in 1969 and the last landing was in 1972. It was stopped simply because

there was no competition. Soviet Union was completely defeated. Barrack Obama in 2012 outlined a schedule to send people to Mars in 2030 and back to earth. It was due to keen competition from China even they have no experience of landing on the Moon, still want to send the first astronaut to Mars earlier than US. And today they still have such a hope even the AI said it will be too hard for them to do so. India, UAE and EU are now having their exploration but still no concrete schedule of landing on Mars yet, just orbiting around and collection of data.

What is the difference in the Artemis Project of NASA and Apollo? This time is not just a landing contest, but to established a base on Mars for immigration. A plan of 20 years on Mars had been formed. In May of 2025, NASA confirmed there is large amount of liquid water underneath the crust of Mars, deep down from 11.5km to 20km. Elon Musk is planning to establish a city in Mars which will up to 1 million citizens so the supply of water is the greatest problem, but now solved.

On 9th December, two important announcements were made. Elon Musk confirmed the IPO of SpaceX will come out in second half of 2026, even one week ago, he denied the IPO of it and said he did not need cash flow for it. NASA re-explained the discovery of water on Mars. Initially, the IPO of SpaceX was said by Wall Street as $400 billion and later $800 billion. Now it is expected the valuation will be around $1.5 billion, that is among the Top 10 of the market value today.

It will be the largest IPO ever in US history ！ ！ ！

Ladies and gentlemen, *the battle of Mars Landing reignites now!* Please wide open your eyes and see what is going to happen next.

Market Observation

All Mars stocks Up ! Up ! Up !

Philadelphia Semiconductor Index (SOX)

7,033.57

-377.92 (-5.10%)

After the announcement of another format of QE policy by Federal Reserve, people sell on good news. Market is wondering whether the current retreat is just a correction or turning back. On Friday, NASDAQ 100 dropped 398.69 points (1.69%) which is a great drop recently. DJIA dropped 245 points (0.51%) and S&P dropped 73.59 points (1.07%). People again arguing is the current AI trend a bubble.

For since the nice result announcement of NVDA in early November, the market goes horizontally even good news comes still goes down, does it mean the power of going up has already gone? Dow Jones just made record high and NASDAQ cannot continue the rise. People are worrying if the Santa Claus Rally cannot push up the market, then next year would have a down trend. Pros and cons are debating furiously.

Hang On! Can't you see all Mars related stocks went up in such a case? For DXYZ, I purchased on April 7th, the very bottom of the golden pit. When it went up to near $40, I asked the AI could I add on buying. They told me to take profit first and I followed, then they said can buy back at $25. From Oct to now, they are under $25 nearly for two whole months and now rockets up to $40. SpaceX is not a public company now; we can only buy through shadow stocks. DXYZ is a closed ETF and SpaceX only occupies 23.3% (See page 9) of the ETF, but how much DXYZ occupied in the total valuation of SpaceX? Only 1%, Oh my God! It still rockets up like this. You can see how much is market expectation. Extremely great indeed!

EchoStar (SATS) and SpaceX are directly linked through a $17 billion spectrum deal in 2025, where SpaceX bought wireless spectrum licenses from EchoStar to expand its Starlink “Direct-to-Cell” service. EchoStar received both cash and SpaceX equity, making it a significant indirect shareholder. But Rocket Lab (RKLB) is a competitor of SpaceX, if one goes up the other should go down, but now it still rises, denoting market expectation in shadow stocks are really quite high.

Meanwhile, when you consult the traditional Mars landing stocks, they are all in white candlesticks when last week or last Friday that NASDAQ 100 dropped 398.69 points. They are LMT, NOC, RTX and BA. Even ARKX, ARKQ are in weekly rising trend which is in reverse trend of NASDAQ.

But one more stock which will be more important, it is TSLA. It still shown a white candlestick when NSADAQ fell sharply. For it is believed to be benefited most. Practically, TSLA will have a lot of co-operation with SpaceX. Before the first crew landed on Mars, they will have a trial by humanoid robot and surely from TSLA. In the 1960s, before they sent the first astronaut to space, they sent monkey and dog first and when they came back safely, human tried later. TSLA will have a lot of projects in space like data centre and will provide large semiconductor factory for humanoid robot or even will use OpenAI to control the running. Anyway, quite a number of co-operation are expected but not yet announced.

So, the battle of Mars Landing comes, no need to wait for 2030. If NASDAQ dropped so much those shadow stocks still rocket up, so when NASDAQ is back to uptrend, what will happen to them? Is it too late to buy those stocks? Surely too late for first stage, better wait for second stage. Such as PLTR, TEM, NVDA, AVGO, TSM and GOOG, they were very low before the pandemic of 2019, but if you missed the chance, the Oct 2022 Orion Metroid Shower is the last train. Just see whether you can catch the last train this time.

The Destiny Tech 100 (DXYZ)
major components

Portfolio construction is in progress and values will change as we add more companies. Data based on holdings as of September 30, 2025.

SpaceX[1]	23.3%
Revolut	6.1%
OpenAI[1]	5.5%
Monzo[1]	3.9%
Kraken	3.2%
Axiom Space	2.9%
Stripe[2]	1.5%
Epic Games	1.4%
Superhuman	1.1%
ClassDojo	1.0%
Klarna	0.9%
Brex[1]	0.8%
AtoB	0.8%
Chime	0.8%
Boom Supersonic	0.8%
Relativity Space[1]	0.7%
Discord	0.4%
Jeeves	0.3%
Plaid[2]	0.2%
Public	0.2%
Automation Anywhere	0.2%
Impossible Foods[1]	0.1%
Flexport	0.1%
Bolt Financial[3]	0.0%
Cash Equivalents	43.9%

Destiny

Quick Answer: The *official scientific confirmation* of liquid water beneath Mars' crust came in **May 2025**, not August or December. Elon Musk's shift on the SpaceX IPO was tied to financial strategy and valuation momentum, not directly to the Mars water discovery. SpaceX's IPO in 2026 could indeed be the largest ever, targeting a **$1.5 trillion valuation**. Stocks in aerospace, satellite communications, advanced materials, and robotics stand to benefit. Launching rockets from the Moon offers efficiency and cost advantages, but also logistical and infrastructure challenges.

💅 When Was Water on Mars Officially Confirmed?

- **May 2025:** Seismic studies published in *National Science Review* and reported by outlets like *Science China Press* and *The Independent* provided the first **peer-reviewed confirmation** of liquid water beneath Mars' upper crust. [1] [2] [3]
- **August 2025:** Media outlets like *Space.com* and *Science Alert* amplified hints, but these were reiterations of the May findings.
- **December 2025:** NASA highlighted the discovery again, but this was more of a **public communication milestone** than a new scientific confirmation.

👉 So, the **official confirmation was May 2025**, with later dates being media amplification and NASA press emphasis.

🚀 SpaceX IPO – Why Musk Changed His Tune

- Initially, Musk denied IPO rumors to avoid premature speculation.
- By **December 2025**, after insider share sales valued SpaceX at **$800 billion**, Musk confirmed a **2026 IPO plan** [4] [5] [6].
- The timing was driven by **capital needs for Starship, Starlink expansion, and lunar base projects**, not Mars water news.
- Target valuation: **$1.5 trillion**, which would make it the **largest IPO in history** [4].

📈 Stocks Likely to Benefit Before SpaceX IPO

- **Aerospace & Defense:** Boeing, Lockheed Martin, Northrop Grumman (lunar infrastructure, Mars mission hardware).
- **Satellite & Communications:** Iridium, Viasat, and competitors to Starlink.
- **Chipmakers & AI:** Nvidia, AMD, Palantir (AI for mission planning, robotics).
- **Materials & Robotics:** Companies in advanced composites, robotics, and autonomous systems.
- **Crypto & Fintech:** Coinbase, MicroStrategy, Robinhood may benefit indirectly if Musk ties Mars projects to crypto financing (he has hinted at this before).

🌕 Launching Rockets from the Moon — Pros & Cons

Advantages:

- ✅ **Lower gravity**: Escape velocity is only 2.4 km/s vs. Earth's 11.2 km/s → cheaper launches.
- ✅ **No atmosphere**: Easier rocket design, no drag or weather delays.
- ✅ **Staging base**: Refueling depots and assembly hubs can be built on the Moon.
- ✅ **Strategic location**: Shorter travel time to Mars compared to Earth launches.

Disadvantages:

- ❌ **Infrastructure cost**: Building a lunar base requires massive upfront investment.
- ❌ **Logistics**: Transporting materials, fuel, and people to the Moon first adds complexity.
- ❌ **Radiation & dust**: Lunar environment is harsh, requiring advanced shielding.
- ❌ **International competition**: South Korea, China, and others pursuing similar strategies could complicate geopolitics. [7] [8]

🔭 Big Picture

The Mars water discovery boosts scientific confidence in habitability, but Musk's IPO decision is **financially driven**. SpaceX's IPO will likely reshape aerospace markets, with ripple effects across tech, defense, and materials. The Moon-as-a-launchpad strategy is visionary but fraught with engineering and geopolitical hurdles.

Would you like me to build a **risk/reward matrix of SpaceX IPO vs. NASA's Moon-to-Mars strategy**, so you can see which sectors have the strongest upside before 2026?

1 Oxford Academic 2 SciTechDaily 3 The Independent 4 Bloomberg 5 CNBC
6 Indiatimes.com 7 SpaceNews 8 National Geographic

Liquid Water on Mars Discovery Timeline

The claim of NASA confirming liquid water beneath Mars' crust at 11.5–20 km depth on December 9, 2025, appears inaccurate based on available sources. The key discovery matching your description (a large subsurface reservoir of liquid water in fractured rocks at ~11.5–20 km depth, enough to fill oceans if brought to the surface) was published in August 2024. This came from seismic data analysis of NASA's InSight lander mission (which ended in 2022), led by researchers including those from UC Berkeley. It was widely reported by outlets like Reuters, BBC, and Berkeley News as evidence of underground liquid water reservoirs.

- **May 2025**: Some reports reference seismic evidence from earlier InSight data reinterpretations (e.g., a paper in National Science Review around April–May 2025 suggesting liquid water at shallower depths of 5.4–8 km).
- **August 2024**: The primary and most cited confirmation of deep (11.5–20 km) liquid water reservoirs, based on InSight seismic waves indicating fractured, water-saturated rock in the mid-crust.
- **December 2025**: No NASA confirmation of new subsurface water at that depth; recent news focuses on ancient watersheds or historical water, not new liquid reservoirs.

Hints in earlier years (e.g., 2018 south polar lake suggestions) were debated or refuted. The 2024 study is considered the strongest evidence to date for current liquid water deep underground.

SpaceX IPO Plans and Elon Musk's Statements

Elon Musk initially denied or downplayed IPO rumors (e.g., dismissing an $800 billion valuation report as inaccurate in early December 2025). However, just days later (around December 10–11, 2025), he confirmed reports of a potential 2026 IPO as "accurate" in response to coverage (e.g., from Ars Technica). Recent statements and reports indicate SpaceX is preparing a major IPO in mid-to-late 2026, potentially raising $25–30+ billion at a $800 billion–$1.5 trillion valuation. Drivers include funding Starship development, Starlink expansion, space-based AI data centers, and lunar/Mars ambitions—not the Mars water discovery (which predates these announcements by over a year).

- **Change in stance**: Likely due to rapid business growth (Starlink revenue dominance, Starship progress) requiring massive capital beyond private funding.
- **Largest IPO ever?** If it raises $25–30+ billion (as reported), it would surpass Saudi Aramco's $25.6 billion in 2019. A $1.5 trillion valuation would be unprecedented for an IPO (Aramco's post-IPO peak was ~$2 trillion, but initial raise was smaller).

Stocks Benefiting from Mars Projects/SpaceX Before IPO

SpaceX remains private, so direct investment isn't public yet. Before/during a Mars push (via Starship), beneficiaries could include suppliers and partners in launch/satellite tech. Potential public stocks:

- Companies like **Rocket Lab (RKLB)**, **Virgin Galactic (SPCE)**, and **Intuitive Machines (LUNR)** may gain from broader space/Mars interest.
- Suppliers for components (e.g., rocket parts, materials) or partners in NASA contracts.
- Indirect: Tesla (TSLA) via Musk overlap, or broader space ETFs. No direct "Mars stock" boom tied to recent water news.

Advantages and Disadvantages of Launching Rockets from the Moon to Mars

NASA's Artemis program views the Moon as a proving ground for Mars tech (e.g., habitats, resource use), not primarily a launch site for Mars missions. South Korea has proposed similar ideas (lunar base by 2045 as a stepping stone), but no active plans use the Moon for direct Mars launches.

Advantages (mostly theoretical, requiring lunar infrastructure like fuel production from ice):

- Lower gravity (1/6th Earth's) means easier escape (~2.4 km/s vs. Earth's 11.2 km/s).
- No atmosphere: No drag or heat issues on launch.
- Potential in-situ resource utilization (ISRU): Produce fuel (oxygen/hydrogen from water ice) on-site, reducing mass sent from Earth.
- Testbed for long-duration habitats, life support, and tech needed for Mars.

Disadvantages (why it's rarely practical without massive lunar industry):

- Must first transport everything (rocket, fuel, crew) to the Moon—adds huge delta-v cost (~6 km/s from low Earth orbit to lunar surface vs. ~3.6 km/s direct to Mars transfer).
- Direct Earth-to-Mars often requires less total energy/propellant for chemical rockets.
- Lunar dust, extreme temperatures, and no atmosphere complicate operations.
- Longer transit times if routing via Moon.
- Current consensus: Better to refuel in Earth orbit (as SpaceX plans with Starship) than build lunar launch infrastructure first.

In summary, Moon-to-Mars launches only make sense with advanced lunar mining/fuel production; otherwise, direct from Earth (or orbit) is more efficient. Artemis focuses on lunar sustainability to prepare systems for Mars, not as a midway launchpad.

1.5s 105 sources

↳ Implications of Mars water for life

↳ NASA Artemis program details