



ATLANTIC CAPITAL MARKETS



Space

The (not so final) Frontier!

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Ever since the space race started back in the 60's mankind's interest in space and space travel has only ever grown. Fast forward to the present day and the prospect of actually being able to go into space as a tourist has never been more exciting, or closer. But the space sector is not just about tourism for the rich, there is also the less exciting workhorse side of the sector as well. So, the overall sector now not only has the appeal of the more mundane day to day satellite launches, TV networks, Defence and exploration and the companies supporting these varied services but also the potential for space tourism to open up massively.

According to BizVibe, The global space industry is currently worth approx. \$414.8 billion. In the USA alone, the space industry was valued at approximately \$158 billion and could grow into a trillion-dollar industry by 2040.

The space industry is now becoming a far more viable sector for investment with serious growth potential being fuelled by the latest technical developments. However, a fair word of caution is needed, as with any fledgling stocks or sectors they are certainly not immune to negative news or even economic downturns like the one recently caused by COVID-19. Being an early stage sector, a little bit of news can go along way both positively and negatively..... OneWeb, one of the leading satellite internet broadband service providers filed for bankruptcy during the pandemic as space missions had either been suspended or delayed.

The Biden Administration could further spark this interest as Biden is committed to support NASA's work to return Americans to the moon and go beyond Mars. Andrew Chanin, co-founder, and CEO of ProcureAM said that space should be a priority for any administration.

Virgin Galactic

The Company

Virgin Galactic is possibly the most well-known brand in the current tourism space race and whilst there are other names in the ring like Blue Origin these are not yet available for public trading. Virgin Galactic are a British-American spaceflight company that operates out of the United States. It was founded by Richard Branson and the Virgin Group still retains a 24% stake. The firm are involved with developing commercial spacecraft and aims to provide suborbital spaceflights to space tourists. Virgin Galactic's suborbital spacecraft are air launched from beneath a carrier airplane known as White Knight Two.

This plane uses a rocket to reach suborbital heights and may run commercial flights sometime in the next few years. It will launch from the Virgin Galactic spaceport in New Mexico.

On 11 July 2021 company founder Richard Branson and three other employees rode on a flight as passengers, marking the first time a spaceflight company founder has travelled on his own ship into outer space (according to the NASA definition of outer space beginning at 50 miles above the Earth). Virgin Galactic currently has regular paid passenger service flights scheduled to begin in 2022 after two more test flights have been completed. That does of course hinge on the continued test flights being successful.



Business' at this early stage will be far more prone to fluctuations in the share price and equally as they are purely focused on space travel do offer limited diversification for those investing. The upshot of this is it will also offer far more growth prospects for those with a longer-term view.

Recent News

The biggest news dominating the headlines for Virgin Galactic highlight the two very different sides of the risk and reward for the shares. The Successful first flight with Sir Richard Branson on board is hugely positive and just as it looked as if the shares were destined for a big run, Virgin Galactic then also announced the sale of an additional \$500m of shares bringing the share price back down to earth despite the successful flight being hailed as a huge marketing coup. These two news stories had a very different impact on the prices and this kind of news flow driven fluctuations can be expected to continue.

Technical Chart





Stock Fundamentals

Valuation	Balance Sheet
Market Capitalization 9.089B	Quick Ratio (MRQ) 5.4549
Enterprise Value (MRQ) 6.544B	Current Ratio (MRQ) 5.7105
Enterprise Value/EBITDA (TTM)—	Debt to Equity Ratio (MRQ) 0.0015
Total Shares Outstanding (MRQ) 240.713M	Net Debt (MRQ) -629.036M
Number of Employees 823	Total Debt (MRQ) 620K
Number of Shareholders 350	Total Assets (MRQ) 748.027M
Price to Earnings Ratio (TTM)—	Income Statement
Price to Revenue Ratio (TTM)—	Basic EPS (FY) -1.2461
Price to Book (FY) 14.5021	Basic EPS (TTM) -1.5033
Price to Sales (FY) 37460.0868	EPS Diluted (FY) -1.2461
Operating Metrics	Net Income (FY) -273.035M
Return on Assets (TTM) -0.5296	EBITDA (TTM) -285.036M
Return on Equity (TTM) -0.8251	Gross Profit (MRQ) -2.869M
Return on Invested Capital (TTM) -0.8248	Gross Profit (FY) -9.716M
Revenue per Employee (TTM) 289.1859	Last Year Revenue (FY) 238K
	Total Revenue (FY) 238K
	Free Cash Flow (TTM) -239.599M

Northrop Grumman Corporation

Northrop Grumman Corporation is an American multinational aerospace and defence technology company with around 90,000 employees and an annual revenues generally in excess of \$30bn, it is no minnow and certainly not a new prospect, in fact they are one of the world's largest weapons manufacturers and military technology providers.

Northrop Grumman are heavily involved in aerospace and defence through several divisions as well as developing the Space systems and Aeronautics sectors in recent years. As well as being involved in defence they are also working on projects like the James Webb Space Telescope, an orbiting observatory scheduled for launch in 2021; and production of the solid rocket boosters for NASA's Space Launch System program.

Space Systems

In June 2018, the acquisition of Orbital ATK was completed and the former company was absorbed in Northrop Grumman as a new business sector called Northrop Grumman Innovation Systems. This acquisition was the trigger point to see the firm getting more involved in the space industry, which now includes the construction and launch of the Cygnus spacecraft. Until 2020 the firm was developing the Omega space launch vehicle, intended to bring U.S. government's national security satellites into space.

The firm's Aeronautics division also plays its part and produces a range of spacecraft, high-energy laser systems and microelectronics for the U.S. and other nations. This includes surveillance and reconnaissance, battle management, protected communications, intelligence, strike operations, electronic warfare, and missile defence to Earth observation, space science and space exploration. The Aerospace systems division also serves as the contractor for space payloads and is the prime contractor for the James Webb Space Telescope.

The firm are also part of the US's National Team to develop a lunar lander. They have a contract to develop the Transfer Element, which essentially allows the spacecraft to dock once it reaches the moon. Northrop will also develop HALO, a module built to orbit the moon that will serve as a stop off for astronauts before they land. They provide support to NASA for several key telescopes. They've also developed the Cygnus, a spacecraft that carries cargo to the International Space Station.

In addition to their involvement in the space industry, Northrop is involved in some of the US government's largest defence contracts which at least offers shareholders some form of diversification against the fluctuations of news flow compared to those purely in the space sector.

Recent News

Northrop Grumman Corp is deeply involved with both the US Gov and Nasa and in news announced on the 13th July has been awarded a \$935 million contract from NASA to build the crew quarters for a space station in lunar orbit as part of NASA's Artemis program, which plans to return astronauts to the moon this decade.

More recent news for the firm has seen their BOLE upgrade replace the current booster originally designed for Ares I. The BOLE program is a joint effort between NASA and Northrop Grumman to develop a new solid rocket booster design with modern production and manufacturing processes. The new design is intended to replace the current SLS boosters that are based on a five-segment solid rocket motor (RSRMV).

Technical Chart





Stock Fundamentals

Valuation	Balance Sheet
Market Capitalization 59.136B	Quick Ratio (MRQ) 1.3356
Enterprise Value (MRQ) 63.558B	Current Ratio (MRQ) 1.4384
Enterprise Value/EBITDA (TTM) 11.4717	Debt to Equity Ratio (MRQ) 1.3454
Total Shares Outstanding (MRQ) 160.961M	Net Debt (MRQ) 10.643B
Number of Employees 97K	Total Debt (MRQ) 14.16B
Number of Shareholders 20.639K	Total Assets (MRQ) 41.423B
Price to Earnings Ratio (TTM) 13.5666	Income Statement
Price to Revenue Ratio (TTM) 1.6217	Basic EPS (FY) 19.0844
Price to Book (FY) 5.8361	Basic EPS (TTM) 27.3693
Price to Sales (FY) 1.6867	EPS Diluted (FY) 19.0275
Operating Metrics	Net Income (FY) 3.189B
Return on Assets (TTM) 0.1067	EBITDA (TTM) 5.237B
Return on Equity (TTM) 0.4611	Gross Profit (MRQ) 1.74B
Return on Invested Capital (TTM) 0.1833	Gross Profit (FY) 7.478B
Revenue per Employee (TTM) 379371.1340	Last Year Revenue (FY) 36.799B
	Total Revenue (FY) 36.799B
	Free Cash Flow (TTM) 3.879B

Boeing

The Boeing Company was started in 1916, when American lumber industrialist William E. Boeing founded Aero Products Company in Seattle, Washington. Shortly before doing so, he and Conrad Westervelt created the "B&W" seaplane. In 1917, the organization was renamed Boeing Airplane Company, with William Boeing forming Boeing Airplane & Transport Corporation in 1928. Boeing are far more known as an aircraft manufacturer and to be frank this has all been in the news over the last year due to the slowdown in air travel. But Boeing's work in the space sector is huge and broad.

Their aerospace operations are run out of their defence, space, and security division. They are one half of the United Launch Alliance, which is working on various projects like the Vulcan Rocket. They provide several different spacecrafts, including launch systems, space planes, satellites, probes, and more. They also work with NASA and other agencies on their space projects.

Boeing Launch Services Inc.

This is Boeing's commercial launch service provider. On behalf of its commercial customers, the launch service administers launch service contracts for Delta II and Delta IV launches conducted by the United Launch Alliance. In November 2010, Boeing Defence, Space & Security was selected by NASA for consideration for potential contract awards for heavy lift launch vehicle system concepts, and propulsion technologies. Boeing possibly have the broadest range of vehicles and services of all the stocks mentioned, including.



- S-IC first stage
- Lunar Roving Vehicle
- X-38 Crew Return Vehicle
- Inertial Upper Stage (Titan IV and Space Shuttle)
- International Space Station
- Space Shuttle orbiter (Rockwell)
- Delta (rocket family) (aka Thor-Delta)
- Sea Launch (with Energia, Aker Kværner, and Yuzhnoe)
- Starliner manned space capsule
- Space Launch System core stage
- Human Landing System

Spaceplanes

- Boeing X-37
- Boeing X-40

Satellites

- ARGOS (satellite)
- Autonomous Space Transport Robotic Operations (ASTRO)
- GPS Satellites (Rockwell)
- Integrated Solar Upper Stage
- Kinetic Energy Anti-Satellite Weapon System
- XSS Micro-satellite
- 376 (formerly Hughes Satellite Systems – HSS)
- 601 (formerly HSS)
- 702 (formerly HSS)
- Space probes
- Lunar Orbiter program
- Surveyor program
- Mariner 10
- Mars Science Laboratory

Technical Chart





Stock Fundamentals

Valuation	Balance Sheet
Market Capitalization 133.454B	Quick Ratio (MRQ) 0.4147
Enterprise Value (MRQ) 190.985B	Current Ratio (MRQ) 1.3343
Enterprise Value/EBITDA (TTM)—	Debt to Equity Ratio (MRQ)- 3.5634
Total Shares Outstanding (MRQ) 584.81M	Net Debt (MRQ) 41.655B
Number of Employees 141K	Total Debt (MRQ) 63.575B
Number of Shareholders 99.383K	Total Assets (MRQ) 150.035B
Price to Earnings Ratio (TTM)—	Income Statement
Price to Revenue Ratio (TTM) 2.4702	Basic EPS (FY)- 20.8811
Price to Book (FY)—	Basic EPS (TTM)- 20.5547
Price to Sales (FY) 2.329	EPS Diluted (FY)- 20.8811
Operating Metrics	Net Income (FY)- 11.873B
Return on Assets (TTM)- 0.0804	EBITDA (TTM)- 2.919B
Return on Equity (TTM)—	Gross Profit (MRQ) 1.415B
Return on Invested Capital (TTM)- 0.3706	Gross Profit (FY) 1.013B
Revenue per Employee (TTM) 412489.3617	Last Year Revenue (FY) 58.161B
	Total Revenue (FY) 58.161B
	Free Cash Flow (TTM)- 18.661B

Recent News

Boeing have announced they will conduct the second uncrewed flight in its CST-100 Starliner spacecraft on July 30. The second flight aims to prove that the system can safely carry astronauts to and from the International Space Station (ISS).

Boeing are beginning to fly astronauts to the International Space Station, NASA is working to "open space to more people than ever before," according to a statement from the agency. As part of this push to open up space, the agency announced today (June 14) that it's actively seeking proposals for two new private astronaut missions to the International Space Station.

DISH Network Corporation

DISH Network Corporation is an American television provider and the owner of the direct-broadcast satellite provider DISH, commonly known as DISH Network, and the over-the-top IPTV service, Sling TV. Additionally, DISH currently offers a prepaid mobile wireless service, DISH Wireless.

In January 2008, EchoStar Communications Corporation, which was founded by Charlie Ergen as a satellite television equipment distributor in 1980, changed its name to DISH Network Corporation and spun off its technology arm as a new company named EchoStar Corporation. The company had begun using DISH Network as its consumer brand in 1996, after the launch of its first satellite, EchoStar I, in December 1995. That launch marked the beginning of its subscription television services.



As of November 2016, the company provided services to 13.7 million television and 580,000 broadband subscribers.

DISH is one of the top television providers in American television. Recently the company announced that they have reached an agreement with Nexstar Media Group to provide users the ability to tune in to Nexstar owned programs, including news, entertainment, and sports. Brian Neylon, Group President, DISH TV said.

Technical Chart



Stock Fundamentals

Valuation	Balance Sheet
Market Capitalization 21.226B	Quick Ratio (MRQ) 1.0562
Enterprise Value (MRQ) 35.414B	Current Ratio (MRQ) 1.1207
Enterprise Value/EBITDA (TTM) 8.1583	Debt to Equity Ratio (MRQ) 1.1895
Total Shares Outstanding (MRQ) 527.345M	Net Debt (MRQ) 12.11B
Number of Employees 13.5K	Total Debt (MRQ) 16.683B
Number of Shareholders 6.65K	Total Assets (MRQ) 38.813B
Price to Earnings Ratio (TTM) 10.6583	Income Statement
Price to Revenue Ratio (TTM) 1.5604	Basic EPS (FY) 3.3590
Price to Book (FY) 1.5769	Basic EPS (TTM) 4.4122
Price to Sales (FY) 1.5577	EPS Diluted (FY) 3.0164
Operating Metrics	Net Income (FY) 1.763B
Return on Assets (TTM) 0.0640	EBITDA (TTM) 4.148B
Return on Equity (TTM) 0.1832	Gross Profit (MRQ) 1.346B
Return on Invested Capital (TTM) 0.0871	Gross Profit (FY) 4.585B
Revenue per Employee (TTM) 1.148M	Last Year Revenue (FY) 15.493B
	Total Revenue (FY) 15.493B
	Free Cash Flow (TTM) 2.311B

Summary

There is undoubtedly some hot stocks and early start stocks in the sector, but these will also see the most volatility in the near term. This volatility goes hand in hand with the longer-term growth prospects. Stocks entering the fledgling space tourism sector like Virgin Galactic will see the most volatility and despite Virgin Galactic currently having the tourism market largely to themselves this won't last for long as we will soon see companies such as Jeff Bezos Blue Origin enter the fray. equally a little bit of news goes along way. Fair warning on those trying to trade them for the short term but the prospects for a long term hold are highly appealing.

But it's not all about the tourism aspect or catering for the super-rich, there is plenty of other companies operating in the sector doing the more mundane, yet appealing work and if exposure to the space industry and sector is what you are looking at but want it in a more established stocks with decent yields then the defence giants like Boeing and Northrop are going to be more in favour, offering strong exposure to the sector with the diversification of also being involved in other areas.

About Atlantic Capital Markets

We are a multi-Asset brokers offering clients the ability to buy the shares either in a traditional fashion with standard shares or taking advantage of leverage and purchase via a CFD.

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