



The Race to Space

Late in 2020, NASA led the establishment of what is known as the Artemis Accords. The intention here is to lay the groundwork for global agreement on what countries are allowed to do when making the great journey into outer space. This would potentially govern aspects like safety and emergency support; extraction of resources; standardization of equipment used in space stations and other shared infrastructure; setting policies for scientific research and information sharing and setting standards for historical preservation of landing sites and other noteworthy items. Essentially, Earth is colonizing the Moon, Mars and other astronomical objects, creating an 8th continent in many respects.

With the last lunar landing in 1972, why the sudden interest?

It appears there is money to be made. Contrary to the original journey to space in the 1960s which had an exploratory and political ambition to it, the 2021 version is centred around providing services to a wide array of governments and industries for cold, hard cash. At the heart of the desire to broaden celestial horizons is the ambition to extend mankind's footprint beyond that of planet earth, to preserve planet earth and mankind itself.

These are lofty ambitions, and long-time science fiction fantasies. Until recently. There are two main protagonists emerging from the private sector to help shuttle whoever can afford the ticket price:

- Blue Origin – led and funded by Jeff Bezos, the Amazon founder. Blue Origin has a global sustainability approach, essentially solving a global overpopulation problem by facilitating travel, work and life in space, a seeming endless realm which can deal with planet Earth's overflow. Blue Origin essentially wants to move environmentally unfriendly industries into space:



— OUR VISION

To Benefit Earth

Blue Origin was founded by Jeff Bezos with the vision of enabling a future where millions of people are living and working in space to benefit Earth. In order to preserve Earth, Blue Origin believes that humanity will need to expand, explore, find new energy and material resources, and move industries that stress Earth into space. Blue is working on this today by developing partially and fully reusable launch vehicles that are safe, low cost and serve the needs of all civil, commercial and defense customers.

- The second is SpaceX – founded in 2002 by Elon Musk (for readers of his self-titled biography you will know that space travel and life on Mars is his ultimate passion; Tesla is his side hustle). SpaceX gets down to business more quickly, promoting the engineering aspects of their rockets, and packaging their services neatly in various service options:



CAPABILITIES & SERVICES

SpaceX offers competitive pricing for its Falcon 9 and Falcon Heavy launch services. Modest discounts are available, for contractually committed, multi-launch purchases. SpaceX can also offer crew transportation services to commercial customers seeking to transport astronauts to alternate LEO destinations.

PRICE

FALCON 9

FALCON HEAVY

STANDARD PAYMENT PLAN
(THROUGH 2022)

\$62 M
UP TO 5.5 mT TO GTO

\$90 M
UP TO 8 mT TO GTO

DESTINATION

PERFORMANCE*

PERFORMANCE*

LOW EARTH ORBIT (LEO)

22,800 kg
50,265 lbs

63,800 kg
140,660 lbs

GEOSYNCHRONOUS
TRANSFER ORBIT (GTO)

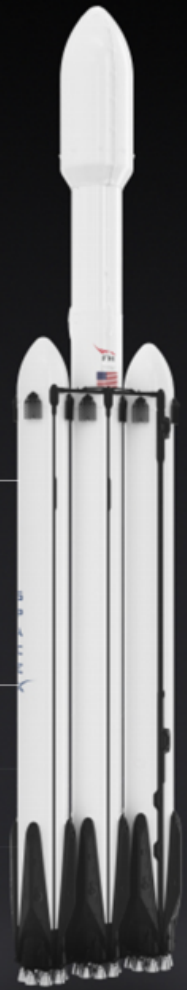
8,300 kg
18,300 lbs

26,700 kg
58,860 lbs

PAYLOAD TO MARS

4,020 kg
8,860 lbs

16,800 kg
37,040 lbs



*Performance represents max capability on fully expendable vehicle

Inclination: LEO = 28.5°, GTO = 27°

So, for a mere \$62m, you are able to use the smaller rocket to shuttle some goods into space. Fortunately, if you are unable to settle this, there is also a 'ride share' option starting at \$1m should you have smaller cargo, such as a satellite. You also have the ability to book your slot, online, today (<https://www.spacex.com/rideshare/>)

SpaceX has also recently won the NASA tender to put astronauts back on the moon by 2024 and has won various contracts to shuttle goods to the International Space Station (ISS). Attaining global reach now has new meaning, and these businesses have put space travel into the grasp of global corporations for the first time.

The tipping point to make this a reality is the ability to recycle the rockets. In prior space programmes, rockets were discarded after single use making them excessively expensive and not commercially viable. With SpaceX's Falcon and Dragon rockets, and Blue Origin's New Shepard, they have perfected the recycling of rockets by being able to return them back to earth and land them on a carrier ship in the ocean, massively reducing the cost per journey.

What does the commercial opportunity look like? The growth potentially has no limit. For a start, SpaceX is currently earning revenues of a few billion USD per year, and that is before the launch of its satellite based global internet platform called Starlink. The company also has a valuation of somewhere between \$40bn and \$70bn depending on who you ask. Why the opacity? SpaceX remains unlisted, despite its massive size and potential, and financial information is not public record.



This brings us onto the point of this article. Potentially great, life-changing companies such as SpaceX are increasingly being run as private investments for significantly longer periods than at any point in the last 100 years. SpaceX, and others like it, are choosing to remain private despite the seeming benefits of a public share listing and the valuation, fund raising, and liquidity benefits which such a listing brings.

What this means is that an increasing number of 'unicorn'^[1] companies are beyond the reach of most investors.

Why is this happening?

There are a few push and pull reasons:

- Push: public equity markets have become more and more tightly regulated, creating substantial cost and distraction for entrepreneurial management teams who would rather be building rockets than adhering to stock exchange compliance guidelines. Companies are also able to reach scale more quickly, as they can outsource various items to established parties rather than needing to create the whole value chain themselves, so they don't need the early capital raise and associated equity dilution. There is tax efficiency too in areas such as incentivization.
- Pull: entrepreneurial founders mostly have longer investment horizons (decade plus) than investors in public markets (less than 12 months on average). Remaining private allows these leaders to focus on their longer-term business model rather than needing to deliver short term profit consistency to external shareholders.

The result is that almost \$2tn of private 'unicorn' companies are being run outside of the public equity market^[2]. Public investors are getting in the way of progress and innovation! Outside of SpaceX, other examples include Bytedance (Tik Tok, Stripe (online payments) and Instacart (online shopping) – each having a private (i.e. informed) valuation greater than \$50bn).

So how can we access these types of opportunities before they hit the public markets and we only gain exposure during the more mature stage of the growth cycle? It's quite difficult. Firstly, private asset investments (equity or debt based) are really only gained via what are termed 'closed end' investment structures. This means that a fixed amount of capital is raised for a particular purpose and investors can't come and go as they wish, which is how the unit trust industry is set up (as open-ended structures). Secondly, the traditional private equity funds are possibly being disrupted here, by businesses who can act as funder/coach/mentor and long-term investor regardless of private status or public listing.

Most private equity funds tend to have finite horizons to make the initial investment, realise capital gains through sale and then to restart the process every seven to ten years. In the new era, many of the unicorn companies are being choosier around who they partner with, because their investment horizons are longer than seven to ten years. In addition, the private equity model traditionally 'exits' on a public share listing or IPO for the underlying company, which creates all sorts of conflicted incentives for the company undergoing transition (hype, overvaluation, corporatized CEO's etc).

Businesses like Sequoia and Baillie Gifford are at the forefront here. Sequoia aims to 'help the daring build legendary companies'. On their CV are companies like YouTube, Dropbox, Google, Instagram, Airbnb and Zoom. Being based in California aligns them well to the emergence of technology businesses, but they have been operating since 1972^[3]. Baillie Gifford have direct investments in companies such as SpaceX, Stripe and Bytedance. Their long-term growth mindset where they aim to partner with entrepreneurs aligns well to businesses seeking long term, patient capital and who have unbounded growth opportunities rather than stable profits.

This still leaves us with a challenge, how to invest? There are a limited number of options, including investment trusts in some cases and private funds in other cases, where we are looking at ways to access these opportunities. We are always on the lookout for ways to invest which expand the opportunity set for our clients, and it appears this private asset area is one which makes a strong case for itself.



^[1] A Unicorn company is typically defined as a private start up business worth more than \$1bn

^[2] Source: Baillie Gifford

^[3] Interestingly another South African in Roelof Botha is in their leadership team, who started alongside Elon Musk at Paypal and has gone on to be the lead investor in some of the most well-known businesses globally.



data provided by Reuters and Datastream

MARKET REPORT

31/08/2021

		3m	YTD	1yr	3yr pa	5yr pa	10yr pa	5yr Vol1	10yr Vol1
LOCAL MARKET INDICES									
FTSE/JSE All Share Index (ALSI)	ZAR	-0.1%	10.1%	25.2%	8.2%	8.3%	11.4%	15.3%	13.4%
FTSE/JSE SA Listed Property	ZAR	10.4%	31.6%	51.0%	-7.3%	-5.3%	5.3%	26.0%	21.1%
SA All Bond Index (ALBI)	ZAR	3.7%	6.9%	14.8%	7.6%	8.2%	7.6%	8.0%	7.9%
SA Cash Index (StefI)	ZAR	0.9%	2.2%	3.8%	5.9%	6.5%	6.2%	0.4%	0.3%
Balanced Benchmark	ZAR	2.9%	9.4%	18.1%	8.3%	8.3%	11.5%	10.3%	8.8%
SA Inflation (1 month lag)	ZAR	1.4%	3.5%	4.6%	4.2%	4.3%	5.0%	1.2%	1.3%
GLOBAL MARKET INDICES BASED TO USD									
Global Equity (Datastream World)	USD	6.0%	19.4%	30.3%	15.6%	15.4%	12.8%	14.6%	13.7%
Emerging Markets Equity (Datastream EM)	USD	-4.0%	0.0%	21.5%	10.2%	10.8%	5.2%	16.5%	17.6%
Global Property	USD	7.7%	24.3%	30.8%	11.1%	8.5%	9.4%	14.2%	14.6%
Global Bonds (Barclays Global Bond Index)	USD	0.0%	-2.5%	-1.3%	4.2%	1.9%	1.1%	5.2%	5.0%
Global Cash	USD	0.0%	0.1%	0.2%	1.3%	1.4%	0.9%	0.3%	0.2%
MAJOR INDICES BASED TO RANDS									
FTSE/JSE All Share Index (ALSI)	ZAR	-0.1%	10.1%	25.2%	8.2%	8.3%	11.4%	15.3%	13.4%
Global Equity (Datastream World)	ZAR	11.7%	14.8%	11.3%	15.1%	15.0%	21.2%	15.8%	14.5%
Emerging Markets Equity (Datastream EM)	ZAR	1.2%	-3.9%	3.7%	9.8%	10.4%	13.1%	13.9%	13.4%
Global Property	ZAR	13.6%	19.5%	11.6%	10.6%	8.1%	17.6%	16.4%	14.5%
SA All Bond Index (ALBI)	ZAR	3.7%	6.9%	14.8%	7.6%	8.2%	7.6%	8.0%	7.9%
Global Bonds (Citigroup)	ZAR	5.4%	-6.3%	-15.7%	3.7%	1.6%	8.7%	15.7%	14.5%
COMMODITIES									
Gold (US Dollars)	USD	-5.2%	-2.8%	-8.2%	14.5%	6.7%	-0.1%	13.2%	15.7%
Gold (Rands)	ZAR	-0.1%	-6.6%	-21.6%	14.0%	6.3%	7.4%		
CURRENCIES									
Rand / Dollar	ZAR	-5.4%	3.9%	14.6%	0.4%	0.3%	-7.5%	15.6%	15.6%
Rand / GBP Pound	ZAR	-2.1%	3.7%	12.2%	-1.5%	-0.7%	-5.7%	15.5%	14.7%
Rand / Euro	ZAR	-1.8%	6.6%	15.7%	-0.1%	-0.8%	-5.4%	14.5%	13.7%

Spot Rates		31-Aug-21	Latest Quarter	1 Year Ago	5 Years Ago	10 Years Ago	20 Years Ago
CURRENCIES							
Rand/US\$	Rand	14.47	14.28	16.94	14.41	7.03	8.43
Rand/GBP	Rand	19.92	19.71	22.43	18.56	11.66	12.22
Rand/EUR	Rand	17.08	16.93	20.26	16.09	10.21	7.66
RATES							
Libor 6m \$	US\$	0.15	0.16	0.31	1.23	0.48	3.45
Repo Rate	Rand	3.50	3.50	3.50	7.00	5.50	11.00
Prime	Rand	7.00	7.00	7.00	10.50	9.00	13.50
All Bond Index Yield	Rand	9.55	9.66	11.64	9.40	7.74	9.74
COMMODITIES							
Gold (\$/oz)	US\$	1 806.30	1 765.43	1 967.93	1 322.42	1 778.90	273.10
Platinum	US\$	1 001.00	1 059.00	930.00	1 077.00	1 812.00	446.00
Oil (Brent Crude) \$	US\$	73.02	75.25	45.12	49.27	112.60	26.64
INFLATION							
SA Inflation	%	4.6	4.9	3.1	5.9	5.3	9.4

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