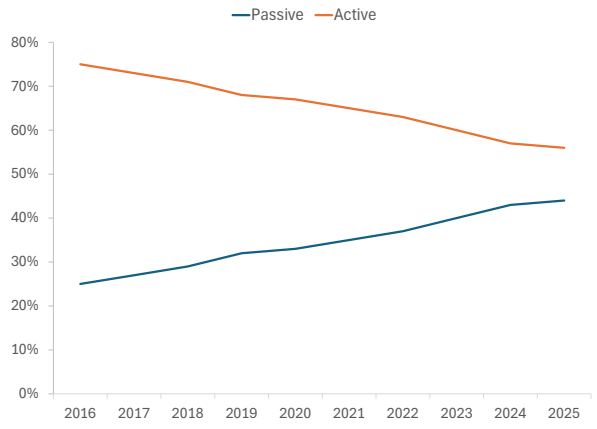
Too big to ignore, too small to trade: SpaceX and the limits of passive investing

Passive index investing has grown rapidly in recent years, offering investors simple and low-cost access to diversified portfolios. But what exactly does an equity index represent? SpaceX's recent IPO brings this question into sharp focus. Although the company ranks among the largest in the world by total market capitalisation, its value is far smaller when measured on a free-float basis. This discrepancy highlights a fundamental dilemma for index providers: should indices reflect the full economic value of listed companies or only the shares that investors can actually buy and sell? The answer matters because passive investors may ultimately be gaining exposure to a very different portfolio from the one suggested by headline company valuations.

Figure 1 shows the development in the shares of global assets held by passive and active funds over the past decade.

Figure 1. *Market share of global assets held by passive and active funds.*
Source: PWL Capital, Morningstar and J.Rangvid



Ten years ago, in 2016, 25% of all fund-managed assets were invested passively; today, that figure has grown to 44%. In dollar terms, AUM of passive funds amounted to USD 6.6 trillion ten years ago, compared with USD 19.4 trillion for active funds. By 2025, the figures had grown to USD 26.8 trillion and USD 33.5 trillion, respectively, corresponding to a growth rate of 309% for passive investing versus 73% for active funds.

In the US, AUM in passive funds now exceeds that of active funds. Passive funds have a market share of 55%, compared with 45% for active funds. Clearly, passive funds are on a winning streak.

Many good things can be said about passive investing. It gives investors access to the market at low cost. Moreover, the vast majority of active funds underperform. SPIVA reports that around 90% of active large-cap US equity funds underperform their benchmark (link).

But an important question is: what is "the market" that passive funds promise investors? And, more specifically for this article, what is "the market" in these crazy SpaceX times?

Index fund

The workhorse index fund invests in the different assets of the index according to their market share. In other words, the holdings of the fund represent "the market".

Today, the market value of all the stocks in the S&P 500 is USD 67.5 trillion and the market value of Nvidia is USD 5.1 trillion. Thus, an S&P 500 index tracker must invest 7.6% of its assets under management in Nvidia. Each time an investor puts USD 100

into the fund, it must use USD 7.6 of that newly arrived money to buy Nvidia shares.

An index fund is a passive investor. This means that the fund will not take a view on whether Nvidia is over- or undervalued at its current share price. The index fund simply buys Nvidia shares according to Nvidia's weight in the market.

We call such an investor a price-inelastic investor: regardless of the price, the investor will buy the stock. And, as mentioned, such inelastic investors now account for almost half of global fund AUM and more than half in the US.

How much should index funds invest in SpaceX?

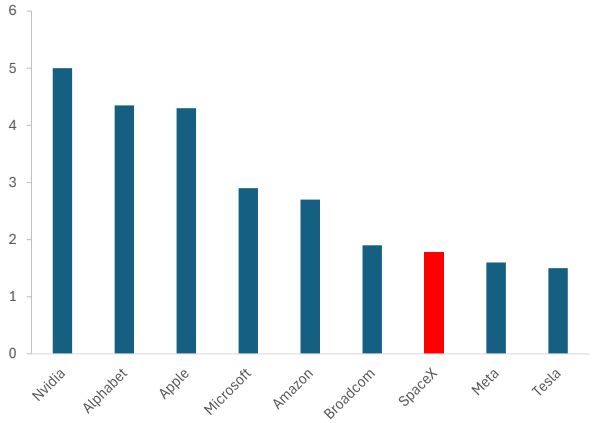
The IPO of SpaceX on Friday 12 June 2026 attracted a great deal of attention. Rightly so. It was the largest IPO ever, with SpaceX selling 555,555,555 Class A shares at a price of USD 135 each, thereby raising USD 75 billion.

SpaceX's IPO raises fundamental challenges for index providers, and thus for the millions of investors in index funds. The problem is that SpaceX is a very large company, meaning it represents a substantial share of the market, but only a small fraction of its shares is available to the public. What should an index provider do?

According to the IPO prospectus, SpaceX had approximately 13.1 billion shares outstanding after the offering, consisting of roughly 7.38 billion Class A shares and 5.7 billion Class B shares (link). At the IPO price of USD 135 per share, its total market value was USD 1.77 trillion.

Figure 2 shows the largest companies in the US. At its IPO valuation, SpaceX was the seventh most valuable company in the US. Globally, it would have been the ninth largest; TSMC and Saudi Aramco are slightly larger. You would arguably expect to gain meaningful exposure to SpaceX if you invested in a fund that aims to replicate the market.

Figure 2. *Largest US companies by market value (USD trillions) on 12 June 2026, the day of SpaceX's IPO. The IPO market value of SpaceX is indicated in red.*
Source: Refinitiv and J.Rangvid.



Let's take an S&P 500 index tracker. The S&P 500 includes 500 of the leading US companies listed on American exchanges. With SpaceX being the seventh-largest company in the US, one might argue that it deserves a prominent place in the S&P 500.

On 12 June 2026, the total market value of all the companies in the S&P 500 was the aforementioned USD 67.5 trillion. At its IPO valuation of USD 1.77 trillion, SpaceX therefore accounted for approximately 2.6% of the S&P 500's market capitalisation.

The naïve investor who believes that buying an S&P 500 index tracker provides exposure to the largest American firms would expect

that 2.6% of their wealth is invested in SpaceX. If around USD 11 trillion is invested in S&P 500 index trackers (link), roughly USD 300 billion would need to be reallocated from other stocks into SpaceX. That is a lot of money flowing into SpaceX shares.

This is the (upward!) price pressure on SpaceX that many people have been talking about. When so many assets are controlled by price-inelastic index funds, and they all need to invest in SpaceX, the share price of SpaceX will "automatically" increase—perhaps substantially—is the argument.

But should index funds invest in SpaceX at all?

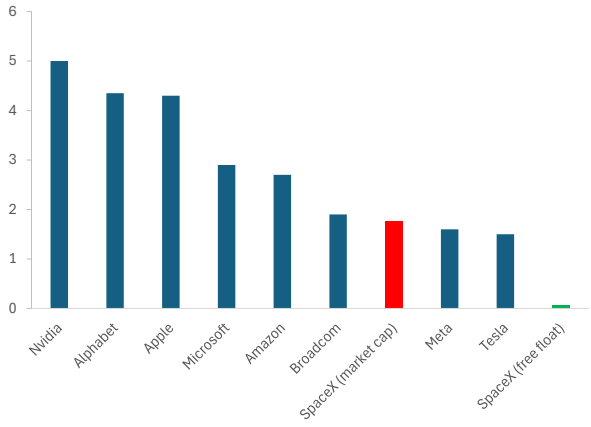
Here's the thing: SpaceX sold only a small fraction of its total shares. In fact, it sold only around 4.2% of all outstanding shares (555,555,555 / 13.1 billion).

That is what we mean by free float. Only 4.2% of all SpaceX shares are available in the market. The remaining approximately 96% are held by Elon Musk and other early investors in SpaceX.

This creates a dilemma for index funds. In principle, if an S&P 500 fund invests according to market values, it should allocate 2.6% of AUM to SpaceX. But there are not many shares available to buy. The price would skyrocket.

So, S&P does something different. If SpaceX were worth USD 1.77 trillion but only 4.2% floated, its float-adjusted market capitalisation would be about USD 76 billion (= USD 1.77 trillion × 4.2%). That would make it much smaller in index terms than in economic terms. Figure 3 demonstrates how large the discrepancy becomes when SpaceX is valued at its free-float market capitalization rather than its full market value.

Figure 3. *Largest US companies by market capitalisation (USD trillions) on 12 June 2026, the day of SpaceX's IPO. SpaceX's IPO market capitalisation is shown in red, while its free-float market capitalisation is shown in green.*
Source: Refinitiv and J.Rangvid.



That is tiny compared with the 3–7% weights of the mega-cap technology firms. If the free-float-adjusted value is used—as the S&P 500 in fact does—SpaceX, with its 4.2% float, would not enter the index as a giant constituent despite being one of the world's most valuable companies. Instead, it would be one of the smallest.

And that is the dilemma: can a company worth nearly USD 2 trillion be represented in the index as if it were worth only USD 76 billion?

Should SpaceX's S&P 500 weight be 2.6% or 0.1%?

There is a tension here. SpaceX is economically enormous, but the tradable supply is tiny. What should the index provider do?

On the one hand, you might think that, as an index investor, you invest in companies according to their economic value. A company that investors believe is worth a great deal should have a larger weight in the index. That points towards using total market capitalisation when determining index weights—the 2.6% weight in my example.

On the other hand, if all index funds collectively need hundreds of billions of dollars' worth of SpaceX shares while only a small fraction can be traded, prices will be driven more by mechanical demand than by valuation. In other words, passive investors are supposed to be price takers, but collectively they would become price makers.

Another problem with relying on economic value when calculating index weights is that the market price may become less informative about the true underlying value of the entire company. Passive investing relies on active investors to determine prices, but if a very large company has a very small float, there will be few shares available to trade and a relatively small amount of buying or selling can move the price significantly.

And this is where the float adjustment becomes useful: it protects index funds from having to buy an impossible number of shares. That is exactly why S&P uses it.

What do the indices do?

There is nothing new about companies having a free float below 100%, nor about index providers having to account for this. What is unusual in this case is the combination of an enormous total market capitalization and a very limited free float. It is an extreme example that highlights the challenges such situations pose for both index providers and investors.

Standard & Poors

S&P Dow Jones Indices use free-float-adjusted indices, and it has explicitly stated that it will not change the S&P 500 rules to accommodate SpaceX or other mega-cap IPOs (link). Most importantly for the discussion here, S&P will retain its requirements regarding public float and the investable weight factor (IWF). In other words, there will be no "mega-cap" exception for firms such as SpaceX.

In addition, there will be no exemption from the profitability requirement (S&P 500 inclusion requires positive earnings, and SpaceX does not currently meet that criterion), nor from the 12-month seasoning requirement (a company must generally be publicly traded for at least one year before it can be considered for inclusion).

Given the figures above, SpaceX would therefore enter the S&P 500 at roughly a 0.1% weight, assuming a float of around 4%, at the earliest in mid-2027, and only if the company has found a way to become profitable.

This might sound reasonable, but it does mean that SpaceX's weight in the S&P 500 will not necessarily represent its economic importance.

Nasdaq

Nasdaq has taken almost the opposite approach. It has changed its methodology specifically to ensure that very large, low-float IPOs can enter the Nasdaq-100 quickly and at larger weights (link).

Nasdaq now allows a newly listed company that is sufficiently large to be added to the

Nasdaq-100 after only about 15 trading days, rather than waiting several months or a year. It has also abolished the previous 10% minimum float requirement, which SpaceX did not meet. Finally—and most importantly in this context—Nasdaq now provides special treatment for low-float companies. For companies with a float below 33.3%, a 3x float cap is applied. This means that if SpaceX has a float of 4.2%, its weight in Nasdaq will be based on 3 × 4.2% = 12.6% of its market capitalisation. This would certainly create considerable additional demand for SpaceX shares.

Taken together, Nasdaq's changes mean that SpaceX could generate substantial forced buying by Nasdaq-100 trackers, whereas S&P index funds would not have to buy it until much later, if at all.

You may not like that, but it is also difficult to totally dismiss the argument made by Nasdaq (link): "The consultation was about ensuring the Nasdaq-100 continues to reflect the market it is designed to measure."

Points to notice

To illustrate the arguments, I have structured this discussion around the price and share count on the IPO date, 12 June 2026.

Of course, the numbers change by the minute, as market capitalisation depends on share price movements and free float at any point in time depends on additional shares becoming available for trading.

At the time of writing (21 June 2026), SpaceX's share price had increased to USD 185. That gives a total market value of USD 2.42 trillion, significantly above the IPO valuation of USD 1.77 trillion, although below the peak reached on 16 June, when the share price touched USD 220 and the company's market value briefly reached USD 2.9 trillion. Using these figures, the allocation to SpaceX in an index would be even larger than the 2.6% market share at the IPO date that I have used for illustration.

The free float may also increase over time, as various triggers and the expiry of lock-up restrictions allow insiders to sell shares in the market (link). The more shares become available in free float, the less difficult the trade-off between a market-representative index and a free-float-adjusted index becomes.

Conclusion

What should a stock market index represent: the economic value of the companies in the market, or the value of the shares that investors can actually buy?

Usually, the distinction hardly matters. Microsoft's free float is 99.9%, Nvidia's is 96%, Apple's is 99.8%, and so on. But SpaceX is different. Its free float is only around 4%, yet it is among the largest companies in the world.

This divergence between tradable shares and total market capitalisation poses a challenge for index providers—and, by extension, for the many investors in index funds. If an index includes the full value of a company even though only a small fraction of its shares can be traded—as Nasdaq's methodology tries to aim at—it risks amplifying demand for a limited supply of shares and thereby inflating the share price. If, instead, an index reflects only the company's free-float value—as in the S&P methodology—the index no longer

represents the full economic value of the companies it contains.

One can debate for a long time which approach is preferable. But for price formation in financial markets and for the returns earned by index investors, the choice is far from academic. The rise of companies such as SpaceX forces index providers to take a stand on a fundamental question they might have preferred to avoid: is a stock market index meant to measure companies, or markets?