



## You Just Bought Tesla

December 21, 2020

If you own an S&P 500 Index fund, you just bought Tesla.

On Monday, November 16, and after years of speculation, the Standard & Poor's index committee voted to add Tesla to its famed S&P 500 Index. Official entry took place today, December 21.

The addition is truly historic. Tesla is the sixth-largest publicly traded company in the world by market cap, making it the largest company ever added to the index. At nearly 300 times next year's earnings, it also may be the most expensive.

This is what makes investing in passive ETFs and index funds tricky. You may think Tesla is overvalued, but if the committee votes to add it, your index fund will be buying the stock. And in this case, you are buying it **after** it has gone up 11,800% since it IPOed in 2013. It's up over 700% this year alone ....



## Criteria

So what exactly are the criteria to add or subtract companies to the index?

*“To be eligible for S&P 500 index inclusion, a company should be a U.S. company, have a market capitalization of at least USD \$8.2 billion, be highly liquid, have a public float of at least 10% of its shares outstanding, and its most recent quarter’s earnings and the sum of its trailing four quarters’ earnings must be positive.”*

Source: (<https://www.spglobal.com/spdji/en/>).

The profitability requirement is what took the committee so long to add Tesla. Tesla hadn't had four consecutive quarters of profits until earlier this year. I know what you are thinking. Tesla stock went up over 10,000% before posting four consecutive quarters of profits?

Yes, it's true. This brings us to one of the criticisms of investing in passive indexes like the S&P 500 Index. Generally, a company isn't added until after it has grown big enough to be included. Said another way, the stock has already gone up substantially. And to be removed, a stock must have shrunk below the \$8.2-billion threshold. Said another way, the stock has gone down substantially.

Put it all together and it turns out the S&P 500 Index committee buys high and sells low. Wait a minute....

## Recent Additions Do Worse

If they are buying high and selling low, one would assume that new additions to the index tend to underperform after they've been added. And those stocks that have been removed would do better after being removed. Turns out, that is exactly what has happened historically.

According to a 2017 Credit Suisse study:

*One intriguing finding is that in the 12 months following an action, the companies the committee removes from the S&P 500 but that continue to trade vastly outperform the companies the committee adds. This is consistent with regression toward the mean. The committee generally adds companies that have done well and have high embedded expectations, and removes companies that have done poorly and have low expectations. The stocks with low expectations go on to outperform the stocks with high expectations.*

The study goes onto to depict this phenomenon in a chart where:

**TSR:** Total Shareholder Returns

**CAGR:** Compounded Annual Growth Rate

**-3 Year:** The three years prior to being added or removed

**-1 Year:** One year prior to being added or removed

**+1 Year:** One year after being added or removed

**+3 Year:** The three years after being added or removed

## Exhibit 7: Trailing and Future TSRs for Additions and Removals from the S&P 500, 2000-2016

		TSR Relative to S&P 500			
		-3 Year CAGR	-1 Year	+1 Year	+3 Year CAGR
Mean	Added	23%	41%	-2%	-3%
	Removed	-9%	3%	28%	3%
Median	Added	16%	26%	-3%	0%
	Removed	-5%	7%	4%	2%

Source: FactSet and S&P Dow Jones Indices.

Source: [https://research-doc.credit-suisse.com/docView?language=ENG&format=PDF&sourceid=em&document\\_id=1070991801&serialid=TqtAPA%2FTEBUW%2BqCJnJNtlkenlBO4nHilyPL7Muuz0FI%3D](https://research-doc.credit-suisse.com/docView?language=ENG&format=PDF&sourceid=em&document_id=1070991801&serialid=TqtAPA%2FTEBUW%2BqCJnJNtlkenlBO4nHilyPL7Muuz0FI%3D)

Simply stated, the stocks that have been added returned 23% per year during the three years **prior** to being added then went down by 3% per year for the three years **after** being added. The stocks that have been removed from the index averaged down 9% per year for the three years **prior** to being removed then went up by 3% per year for the three years **after** being removed.

If this was your only input when making investment decisions, you might consider selling the stock that was just added (Tesla up +730% this year) then buying the stock that was just removed (Aimco down -30% this year)....

To be fair, the index still remains one of the best ways to track the US stock market. And anyone who has purchased and held onto the S&P 500 Index has done extremely well over time. After all, they've been investing in the largest, most successful companies in the largest, most liquid stock market in the world.

So congratulations, you now own Tesla. If history is any guide, its addition to the index today may end up being a "sell the news" event. But then again, nothing Elon Musk touches seems to operate under historical norms....

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