Investment indices: The inside story

Both the Dow Jones Industrial Average and the S&P 500 Index have made changes recently. What does that mean for retirement investors?

Jeff Chalk, CFA



It's unusual for investment indices to make the news except during recordbreaking highs or lows. However, over the past few weeks, there has been quite a bit of fanfare over changes in two of the most widely known benchmarks for the U.S. stock market.

The Dow Jones Industrial Average (DJIA, or the Dow) went first on August 31, 2020. Headlines noted the irony of the success of Apple Inc. in triggering a four-for-one stock split, which caused the Dow to *reduce* its weighting of Apple stock to one-fourth the pre-split level. Other stories focused on the exclusion of Exxon, which had been a Dow member since 1928 under its original name, Standard Oil. The changes are noted in Figure 1.

FIGURE 1: DJIA ACTIONS

Effective Date	Index Name	Action	Company Name	Ticker	GICS Sector
August 31, 2020	DJIA	Addition	Salesforce.com CRM Information Techn		Information Technology
		Addition	Amgen	AMGN	Health Care
		Addition	Honeywell International	HON	Industrials
		Deletion	Exxon Mobil	XOM	Energy
		Deletion	Pfizer	PFE	Health Care
		Deletion	Raytheon Technologies	RTX	Industrials

Changes to the Standard & Poor's 500 Index (S&P 500) occurred three weeks later on September 21, 2020. Here the biggest headline grabber was the fact that Tesla, the innovative maker of electric luxury cars, was excluded from a group of companies that were added to the S&P 500, including online craft seller Etsy, semiconductor equipment maker Teradyne, and pharmaceutical technology company Catalent. Tesla stock fell 21% when the decision was announced.

FIGURE 2: S&P 500 ACTIONS

Effective Date	Index Name	Action	Company Name	Ticker	GICS Sector
September 21, 2020	S&P 500	Addition	Etsy	ETSY	Consumer Discretionary
September 21, 2020	S&P 500	Addition	Teradyne	TER	Information Technology
September 21, 2020	S&P 500	Addition	Catalent	CTLT	Health Care
September 21, 2020	S&P 500	Deletion	H&R Block	HRB	Consumer Discretionary
September 21, 2020	S&P 500	Deletion	Coty	COTY	Consumer Staples
September 21, 2020	S&P 500	Deletion	Kohl's	KSS	Consumer Discretionary

These stories raise a number of questions for fiduciaries and administrators as well as participants in retirement benefits programs. What is the rationale for these changes? What is the difference between these indices? And how does this impact a program and its future benefits? To answer these questions, a quick historical review is in order.

The why and how of the Dow

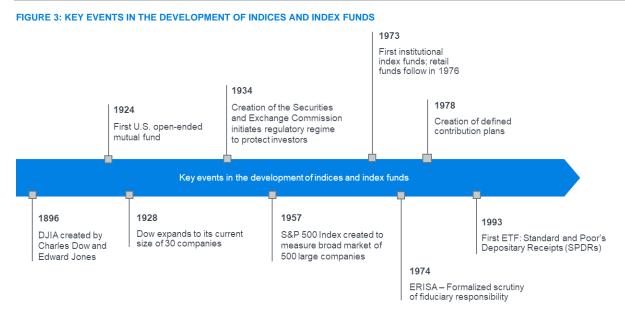
Charles Dow and his partner Edward Jones created the Dow Jones Industrial Average in 1896. Published daily in Dow's newspaper, the *Wall Street Journal*, the DJIA was a tool to provide a quick take on the strength or weakness of the stock market and the larger economy.

Originally, the Dow consisted of 12 stocks, selected by Dow and colleagues, as representative of the U.S. economy. The Dow expanded to its current size, 30 companies, in 1928. The composition has changed more than 60 times since then. Thus, the changes of August 31, 2020 were mostly routine maintenance.

A century of growth and turmoil demands specialized benchmarks

The first half of the 20th century was a volatile time for investors. Despite the Great Depression and two world wars, the United States was industrializing rapidly. Companies began to establish pension funds to attract and retain employees. Individuals began investing on their own account, increasingly using mutual funds to obtain diversification, even in smaller portfolios.

Professional asset managers began asking different questions. Instead of "how's the market doing?" they wanted to know "how's my portfolio performing compared to the market?" This in turn raised the question, "how do we define *the market?*"



The Dow did a good job of tracking the performance of the very largest, most influential businesses in the United States. But what about the hundreds of other publicly traded companies that weren't as big or as visible as the Dow's 30?

In 1957, Standard & Poor's addressed the need for a broad-market benchmark by creating the S&P 500 Index. Like the Dow, the S&P 500 focuses on large capitalization companies, which are also selected by a committee that changes the makeup of the index on a regular basis.

However, with more than 16 times the number of stocks than the Dow, the S&P 500 Index is a better indicator of how the *overall* stock market is performing. For that reason, investment professionals typically choose the S&P 500 as the benchmark for U.S. stock funds they are managing or recommending to their clients.

The rise of index funds

In addition, the S&P 500 became the go-to index for creating passively managed index funds. These funds began appearing in the mid-1970s, driven by investors who wanted a simple way to invest in the stock market while paying significantly lower fees. Tellingly, as of December 31, 2019, more than \$11 trillion was indexed to the S&P 500 Index while only about \$32 billion was indexed to the Dow. This is another key reason why the S&P 500 gets more attention from professionals than the Dow.

Expected impact of recent changes

A peculiarity of the Dow is that it is a *price*-weighted index, while the S&P 500 and virtually all other indices are *market*-weighted. Under the Dow's methodology, Apple's split looks like an outright loss in price of \$374 per share. Without a reconstitution, the index would have dropped for no material reason, and the Dow's Information Technology (IT) sector weighting would have fallen from 27% to about 20%. However, the additions and deletions kept the index steady, and the inclusion of Salesforce.com brought the Dow's IT weighting back to 24.4%, the largest weight in the index. The deletion of Exxon reduced the Dow's Energy sector weighting to a mere 1.9%.

For a market-weighted index like the S&P 500, a stock split like Apple's is a nonevent. Apple's market capitalization stood at approximately \$2.21 trillion throughout the split and Apple's inclusion and weighting in the S&P 500 remains unchanged. However, the changes made over time by the S&P 500 committee have an interesting story to tell.

FIGURE 4: HISTORICAL SECTOR WEIGHTS OF THE S&P 500 INDEX

As you can see in Figure 4, the Energy sector had one of the largest weightings in the S&P 500 in 1989 (12.6%). However, it has plummeted to 2.3% as of September 1, 2020, as the demand for oil has diminished in a world economy stricken by COVID-19. Meanwhile, the weight of the IT sector has grown significantly, from 5.9% in 1989 to 29.0% as of September 1, 2020. This reflects the way computerization and the internet have transformed our everyday lives.

Likewise, technology has transformed the discipline of investment management. All of the major index providers now offer *families* of indices that segment markets around the world by asset class, capitalization tier, industry sector, and other factors. Thus, when plan sponsors and participants hear about the Dow or the S&P 500, they should

Historical Sector Weights of the S&P 500 Index								
	9/1/2020	2019	2009	1999	1989			
Energy	2.3%	4.3%	11.5%	5.6%	12.6%			
Materials	2.5%	2.7%	3.6%	3.0%	7.9%			
Industrials	8.0%	9.1%	10.2%	9.9%	14.4%			
Consumer Discretionary	11.5%	9.8%	9.6%	12.7%	14.6%			
Consumer Staples	6.8%	7.2%	11.4%	7.2%	11.6%			
Health Care	13.7%	14.2%	12.6%	9.3%	8.4%			
Financials*	9.6%	13.0%	14.4%	13.0%	8.8%			
Information Technology	29.0%	23.2%	19.9%	29.2%	5.9%			
Communication Services**	11.1%	10.4%	3.2%	7.9%	9.8%			
Utilities	2.8%	3.3%	3.7%	2.2%	6.1%			
Real Estate*	2.6%	2.9%						
The dates in the table are as of year-end unless otherwise noted.								
"Real Estate was spun off from the Financial sector post September 16, 2016.								
**Telecommunication Services was renamed Communication Services, with issues added from other sectors post September 20, 2018.								
Source: S&P Dow Jones Indices								

remember that these indices are just the tip of the iceberg. They're part of a complex of sophisticated tools and analytics that allow investors unprecedented flexibility in managing risk and designing portfolios to meet your program's investment goals.

Milliman

Milliman is among the world's largest providers of actuarial and related products and services. The firm has consulting practices in life insurance and financial services, property & casualty insurance, healthcare, and employee benefits. Founded in 1947, Milliman is an independent firm with offices in major cities around the globe.

CONTACT

Jeff Chalk
jeff.chalk@milliman.com

milliman.com

© 2020 Milliman, Inc. All Rights Reserved. The materials in this document represent the opinion of the authors and are not representative of the views of Milliman, Inc. Milliman does not certify the information, nor does it guarantee the accuracy and completeness of such information. Use of such information is voluntary and should not be relied upon unless an independent review of its accuracy and completeness has been performed. Materials may not be reproduced without the express consent of Milliman. The author is an employee of Milliman Advisors, LLC which is a wholly-owned subsidiary of Milliman, Inc.