Dimensional

1971: The Beginning of a New Way to Invest, Based on Science

By David Booth, Founder and Chairman

I'd rather be an investor in 2024 than in 1971.

Back then, investment options were limited, opaque, and expensive. Portfolios were based on predictions and often highly concentrated.

Starting in the mid-1960s when computers became available, leading academics began developing and testing theories with stock market data. Within a short period of time, seminal research came out that paved the way for investing to shift from being a speculative sport to becoming a science.

So, what did these academics uncover? For one, professional money managers performed no better than you'd expect by chance. After fees, they performed worse than chance and their results looked random. Gene Fama at the University of Chicago developed the efficient market hypothesis, which offered a sensible theory as to why. His main insight was that markets do a good job incorporating all available information and driving it into prices. That's great news for investors because it means you can win without having to identify pricing "mistakes" or predict the future. In many ways, it heralded the democratization of investing.

I was lucky to be at the University of Chicago as many of these new ideas were being developed. It's hard to describe how exciting it was. Groundbreaking ideas led to more research and more questions. It inspired me to put these ideas into practice.

THEN AND NOW

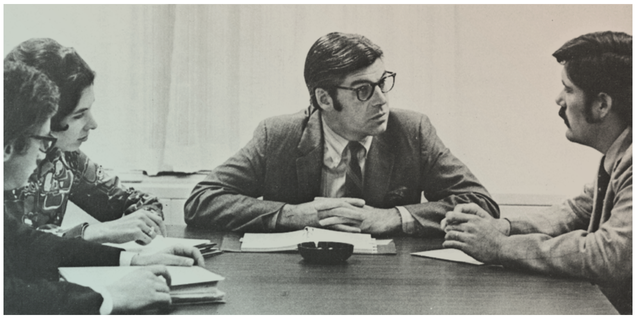
What other innovations got off the ground in 1971?

Indexing launched in 1971, a year that saw many other notable debuts. Investing has made great advances beyond index funds in the years since, alongside progress across a range of industries.

Starbucks opens its first coffee shop

NOW

38,500+ shops



Left: Professor Eugene Fama at the University of Chicago

Right: John "Mac" McQuown at Wells Fargo in the early 1970s (Photo is used with permission from Wells Fargo Corporate Archives.)

Fast-forward to 1971. One of the first index funds, which I worked on with Mac McQuown when he led the management sciences division at Wells Fargo Bank, was an initial step in applying these insights. Mac had what is now the "who's who" list of academics consulting with the team. Several went on to earn Nobel Prizes. We asked ourselves, "If it's difficult for investors to consistently pick winners, is there a way to beat the market without outguessing it?"

The group contemplated different weighting schemes and adding leverage as potential ways to perform better. That led to our launching an equally weighted New York Stock Exchange index fund. Two attributes emerged as important when forming an index portfolio: maximizing diversification and minimizing costly trading. Shortly after our launch, the trust department at Wells Fargo came up with the idea of simply tracking the S&P 500 Index using market-cap weighting. That caught people's imaginations because it's easy to explain and cheap to do.

THEN

2,300
transistors
per chip

Intel introduces the world's first microprocessor

NOW

46 billion
transistors
per chip

FedEx is incorporated

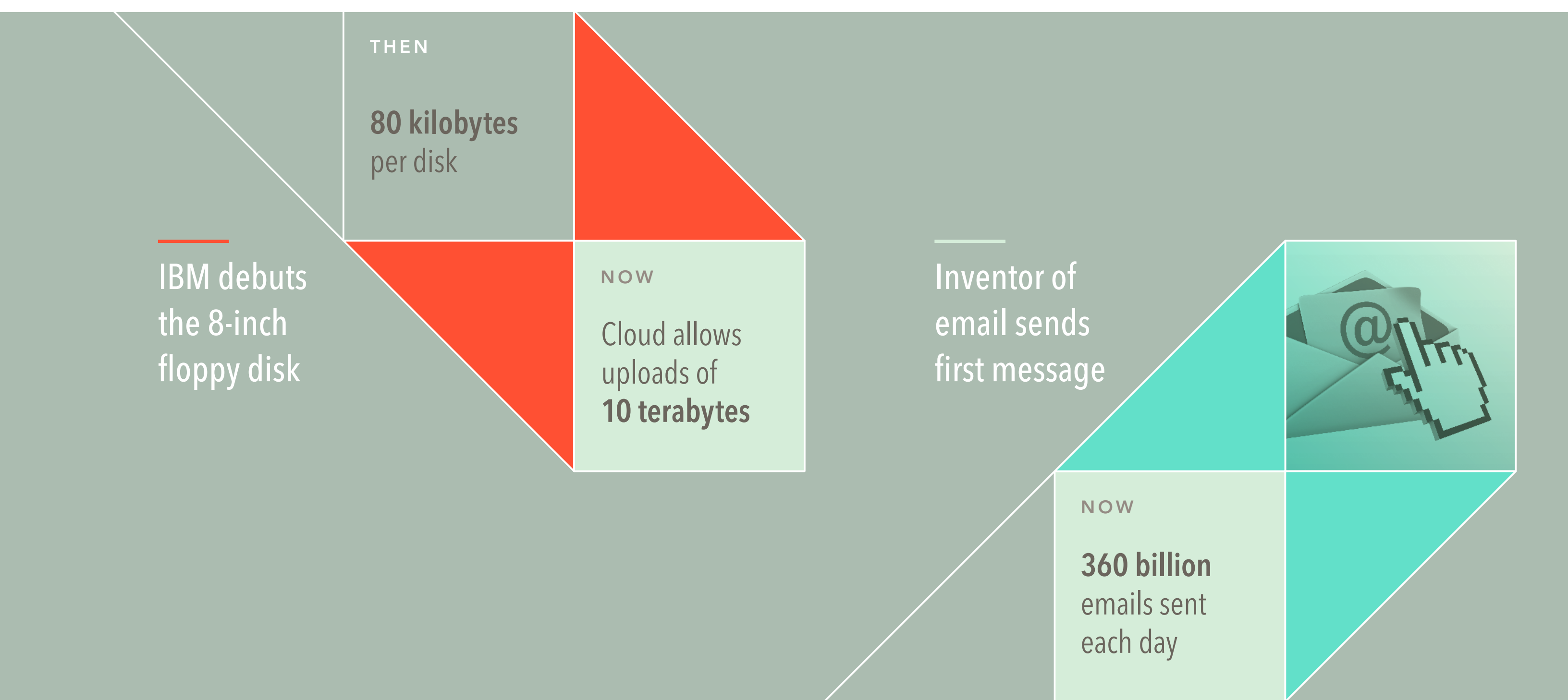
NOW

16.5 million
packages
shipped daily

Indexing was revolutionary at the time, because it meant that investors could finally capture market returns without trying to time the market or pick stocks. It also created a new standard of manager accountability that was easy to monitor. Unless the index fund matched the returns of the index minus its fees, managers weren't doing their jobs. But what started as a way to hold managers accountable became an obsession with zero tracking error. This fixation on matching—rather than beating—benchmarks is unnecessarily rigid. It shortchanges the investor and leaves money on the table. That's why, soon after creating the first index funds, my colleagues and I were driven to create something even better.

When we founded Dimensional in 1981, we wanted to give investors the opportunity to do better than indexing, while still maintaining the virtues of diversification and low costs. We call this better way Dimensional Investing. Our first advantage is structural, designing portfolios informed by financial science. Weighting stocks by market capitalization, as many indexes do, is not the only way to form a diversified portfolio with exposure to a market segment. Subsequent research has found that not all stocks have the same expected returns, so we systematically emphasize dimensions of the market that historically have outperformed.

Second, implementation matters. While many indexes rebalance as infrequently as once or twice a year, staying flexible allows you to buy and sell securities every day based on up-to-date information on what can improve returns. Engineering portfolios and implementing well is what Dimensional has been doing and improving upon for 43 years. Because we're not beholden to a rigid goal of matching an index, we trade what we want to, and when.

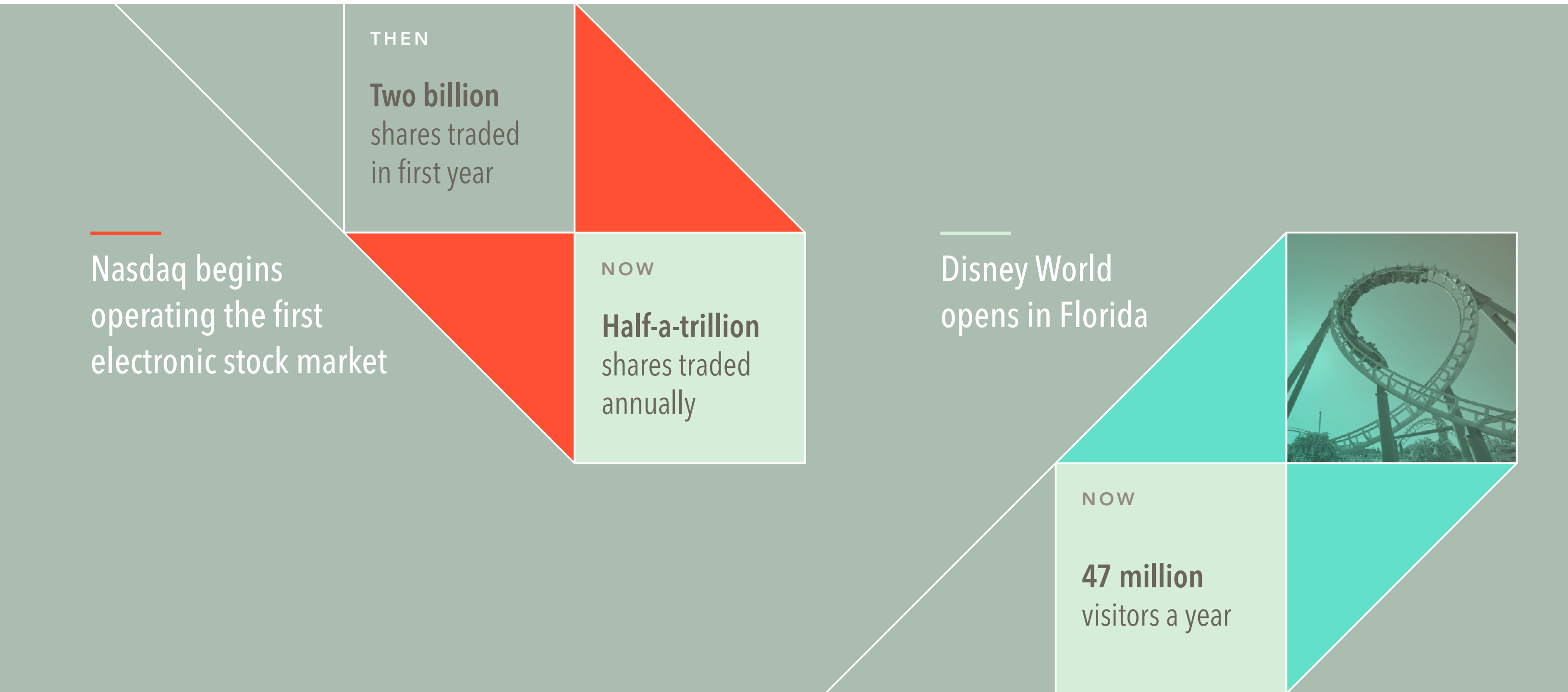


That flexibility has been a key source of value, because it allows us to seek better prices than index funds may get. Myron Scholes and Robert Merton became Nobel laureates for their options pricing model, which highlighted the merits of flexibility. The insight applies well beyond options—more flexibility in implementation could give investors a better deal while still allowing them to benefit from the positives of indexing. Flexibility is key to distinguishing what we do at Dimensional from what indexers have been doing for 50 years.

Left: Robert Merton and Myron Scholes at the Nobel ceremony in 1997

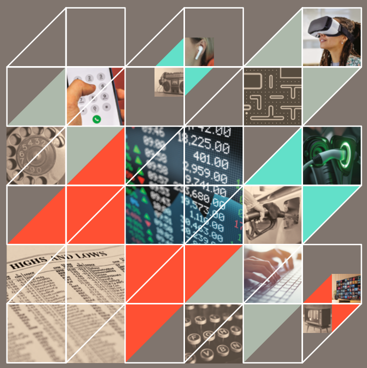
Right: David Booth in the early 1970s

It is remarkable to look back at 1971 and see how much the world has changed. When it comes to investing, people are having a much better experience today—fees are lower, transparency is higher, and our understanding of markets has advanced. We founded Dimensional with the belief that we could do better for investors, and looking back over the last four decades, we have. ■



Then and Now sources: Starbucks, number of stores as of January 2024; FedEx, average daily package volume based on 255 operating days per year; Intel and *transistorcount.com*, number of transistors on Intel Xeon Sapphire Rapids processor launched in 2023; *computerhistory.org* and IBM, largest upload supported by IBM Cloud Object Storage as of 2023; BBC, first email sent by Ray Tomlinson over ARPANET, and Statista, based on projected number of emails sent and received each day in 2024 (forecast in 2022); *Traders Magazine*, 2 billion shares traded in about 2,500 securities, and Nasdaq, based on monthly equity volumes from 2023; Disney and AECOM Theme Index *Global Attractions Attendance Report* for 2022, the most recent year available.

Eugene Fama and Ken French are members of the Board of Directors of the general partner of, and provide consulting services to, Dimensional Fund Advisors LP. Robert Merton provides consulting services to Dimensional Fund Advisors LP. Myron Scholes served as an Independent Director, Dimensional Funds, 1981–2021.



ON THE COVER

Science has transformed every aspect of our lives, including the way we interact, travel, and even invest. The cover captures innovations from the 1970s, when index funds were born, and the advancements since then that have shaped our world for the better.

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