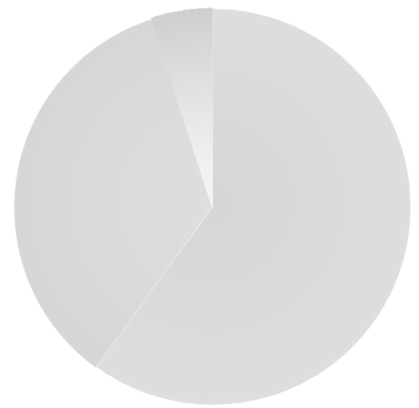First Ascent Asset Management

THE BENEFITS OF DIVERSIFICATION
And How to Achieve Them

What is Diversification?

Almost everyone has heard that diversification is important in building portfolios. However, many people don't understand what it is, why it's important, or how to maximize its benefits.

Diversification means spreading the assets in a portfolio among different investments.

The goal is to smooth out the returns of the portfolio. For most investors, a smoother ride increases their willingness to stay invested. Staying invested dramatically improves the likelihood they will achieve their long-term investment objectives.

Why is Diversification Important?

It is impossible to know exactly how any individual investment will perform in the future.

Since we can't know the future with certainty, we combine multiple investments in a portfolio to enhance our chances of reaching our performance targets. By putting our eggs in many baskets, we reduce the impact on our portfolio of anything negative happening to any one of them.

Further, research shows that a relatively small number of stocks account for a disproportionate share of the market's returns. By broadly diversifying, we can improve the likelihood that we will capture those returns by holding the stocks that drive the market's performance.

Finally, by methodically combining different types of investments in a portfolio we can target specific investment outcomes. This gives us the ability to build portfolios specifically designed to help investors reach their personal investment goals.

Broad Categories of Diversification

We start by identifying different categories of investments that share common performance characteristics over long time periods. Research has identified a number of these, including:

Asset Classes
Securities can be placed in categories we refer to as "asset classes." Some of the more common asset classes include: stocks, bonds, real estate, and commodities.

Asset classes can be further broken down into subcategories, which, themselves, tend to have unique performance characteristics.

For example, bonds can be categorized based on their issuer (corporate, US government, municipal), their credit quality (investment grade, high yield), or their duration (short-term, long-term). Commodities can be segmented based on the type of commodity (gold, oil, beef).
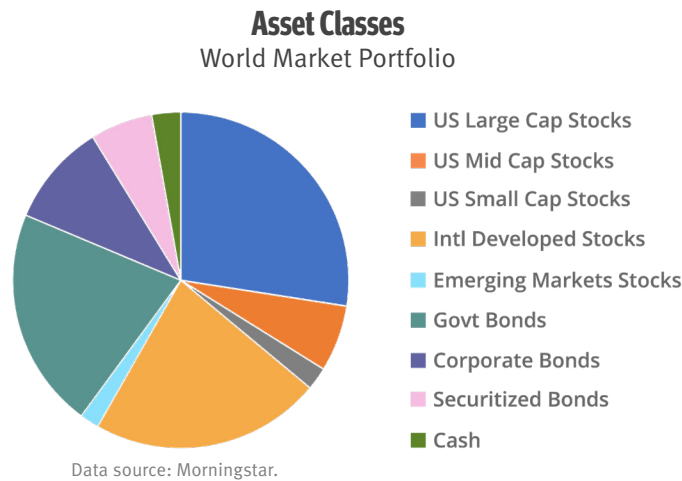
Domestic vs. International
Stocks and bonds are often categorized based on their country of issuance. For a US investor, stocks and bonds issued by US-based companies are considered domestic or "home-country" securities. Stocks and bonds issued by companies based outside the US are considered international securities.

Here's how global investors have diversified their investments among various asset classes:

Asset Classes
World Market Portfolio

- ■ US Large Cap Stocks
- ■ US Mid Cap Stocks
- ■ US Small Cap Stocks
- ■ Intl Developed Stocks
- ■ Emerging Markets Stocks
- ■ Govt Bonds
- ■ Corporate Bonds
- ■ Securitized Bonds
- ■ Cash

Data source: Morningstar.

Region or Country-Specific Distinctions
International securities can be further broken down into subcategories based on region (Asia, Europe) or country (Japan, France).

Market Capitalization
Both domestic and international stocks can be categorized based on the size of the issuing company. Size is determined by a company's "market capitalization," which is the total value of its outstanding stock.

Stocks issued by larger companies are referred to as "large cap stocks." Stocks of mid-sized companies are "mid cap stocks." Stocks of smaller companies are "small cap stocks."

This graphic shows how the US stock market breaks down based on market capitalization:

Market Capitalization
US Stock Market

- ■ US Large Cap Stocks
- ■ US Mid Cap Stocks
- ■ US Small Cap Stocks
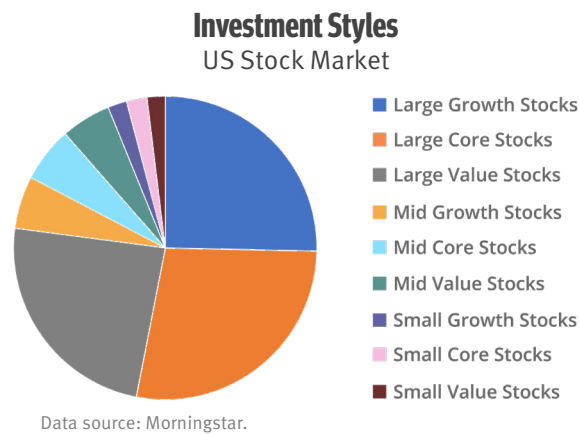
Data source: Morningstar.
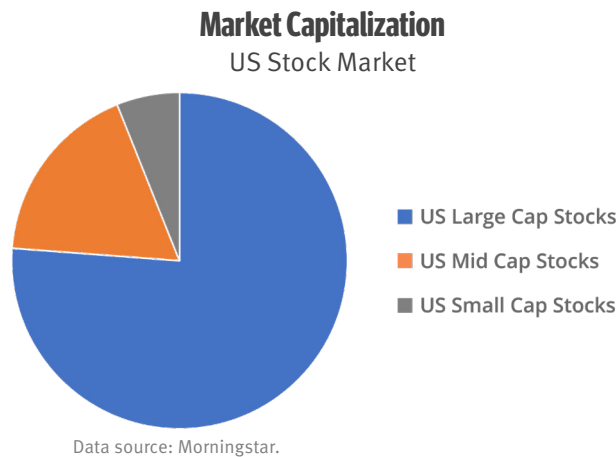
Investment Styles

Both domestic and international stocks can be categorized based on their "investment style." The two major styles are "value" and "growth."

Value stocks are stocks of companies that are priced lower than the broad market based on some measure like price-to-earnings, price-to-book, or price-to-sales. They may be priced low based on the poor performance of the company or because the market fails to currently appreciate the underlying value of the firm.

Growth stocks are stocks of companies that are priced higher than the broad market based on some measure like price-to-earnings, price-to-book, or price-to-sales. They are often priced higher because they've had strong earnings growth in the past and are expected to have better-than-average future growth potential, although that growth potential may not materialize.
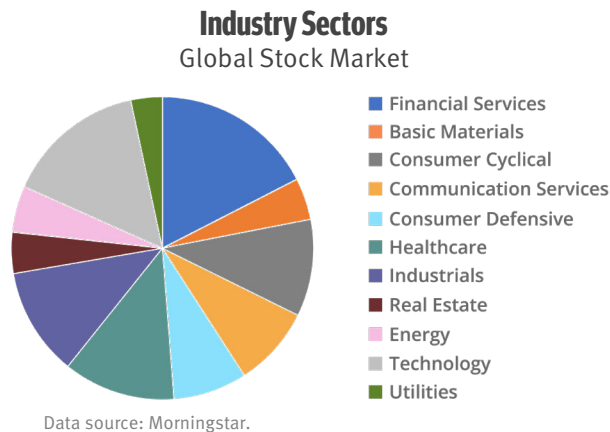
"Core" is a term used to describe stocks that fall in the middle between lower priced value stocks and higher priced growth stocks.

Investment Styles
US Stock Market

- Large Growth Stocks
- Large Core Stocks
- Large Value Stocks
- Mid Growth Stocks
- Mid Core Stocks
- Mid Value Stocks
- Small Growth Stocks
- Small Core Stocks
- Small Value Stocks

Data source: Morningstar.

Industry Sectors

Both domestic and international stocks can be categorized based on the industry sector in which the issuer operates. The Global Industry Classification Standard (GICS) provides a standard methodology for determining industry sectors.

GICS breaks the world's 630,000 public companies into 11 high level categories. These 11 sectors are broken down further into 25 industry groups, 74 industries, and 163 sub-industries.

Industry Sectors
Global Stock Market

- Financial Services
- Basic Materials
- Consumer Cyclical
- Communication Services
- Consumer Defensive
- Healthcare
- Industrials
- Real Estate
- Energy
- Technology
- Utilities

Data source: Morningstar.

Why Put Investments in Categories?

The point of creating and studying these categories is twofold:

- To identify investments that have performance characteristics that differ in a meaningful way from the performance characteristics of other investments.
- To be able to combine investments from different categories in a manner that reduces risk and improves the likelihood of achieving specific performance objectives.

This process can be challenging. First, the performance characteristics of each category do not remain constant. Second, how one category of investment performs relative to another can also change. These changes may not be dramatic, but they do shift over time.

It's worth noting that the diversification benefits of different investment categories are not all the same. For example, the returns of stocks and bonds have been negatively correlated over much of the recent past. That means that when stocks decline in value, bonds have tended to rise in value (and vice versa). This relationship provides a strong diversification benefit.

On the other hand, diversifying across market capitalizations—large, mid, and small cap stocks—tends to provide a much weaker diversification benefit. The average correlation among these categories is very high, meaning that changes in the value of one tend to be accompanied by similar changes in the value of all of them.

The benefit of diversifying across industry sectors tends to be stronger than diversifying across market capitalizations, but not as strong as diversifying between stocks and bonds. So sector diversification provides a modest benefit.

The following table shows correlations among some of the major asset classes. Asset classes with high correlations (those approaching 1.0) tend to move in the same direction when markets rise and fall. Asset classes with low correlations (negative numbers) tend to move in opposite directions when markets rise and fall.

10-Year Cross Correlations
Major Asset Classes

	US Large Cap	US Small Cap	Intl Developed	EM Stocks	Intl Bonds	US Govt Bonds	US High Yield
US Large Cap	**1.00**	0.89	0.86	0.68	0.40	0.33	0.80
US Small Cap	0.89	**1.00**	0.72	0.65	0.12	-0.22	0.67
Intl Developed Stocks	0.86	0.76	**1.00**	0.84	0.47	0.00	0.79
EM Stocks	0.68	0.60	0.79	**1.00**	0.53	0.11	0.76
Intl Bonds	0.40	0.27	0.53	0.60	**1.00**	0.52	0.41
US Govt Bonds	0.33	0.21	0.37	0.43	0.72	**1.00**	0.19
US High Yield	0.80	0.76	0.79	0.70	0.54	0.55	**1.00**

Data Source: Morningstar. Asset Classes are proxied with the following indices: US Large Cap – Russell 1000, US Small Cap – Russell 2000, Intl Developed Stocks – MSCI EAFE, EM Stocks – MSCI EM, Intl Bonds – Bloomberg Barclay Global Agg Ex USD, US Govt Bonds - Bloomberg Barclay US Aggregate Government Related Securities, US High Yield - Bloomberg Barclay US Corporate High Yield. Correlations are for the time period 1/1/2013-12/31/2022

The relationships among the performance characteristics of different categories of investments are complex. But understanding them makes it possible to build portfolios that have very specific risk and return targets.

Providing Better Service to Clients

Categorizing investments has another benefit. It allows financial advisors to analyze a portfolio and determine the drivers of its performance, while diagnosing any shortcomings in its construction. Investors are often unaware of how their assets are allocated and frequently discover that they have unintentional overweights or underweights in their portfolios.

Having a more granular understanding of what's in a client's portfolio allows an advisor and client to have a more meaningful conversation about the portfolio's strengths and weaknesses. An advisor can then prescribe improvements that better align the portfolio's structure and composition with the client's long-term goals and objectives.

How Do You Achieve the Right Level of Diversification?

Again, the key is to combine investments with different performance characteristics. This allows declines in the value of one investment to be offset by smaller declines or even gains in another investment. This can reduce a portfolio's downside volatility making the ride smoother for the portfolio's owner, while harnessing the portfolio's components to achieve specific goals.

All investments have performance characteristics that can be measured and quantified. For example, with respect to any given type of investment, it is possible to:

- Determine what its long-term historical returns have been
- Develop models to estimate what its future returns might be
- Calculate the volatility or range of returns it has displayed over time
- Measure the correlations among the returns of different types of investments

This information allows for a more data-driven approach to diversification. None of it foretells exactly how an investment will perform in the future. But it provides insights into the likely range of outcomes that can help with portfolio construction, particularly over the long-term.

THE BENEFITS OF DIVERSIFICATION

For example, the graphic below shows the performance over the last 15 years of nine different categories of investments on a year-by-year basis. It also shows the performance of a basic (and common) asset allocation portfolio consisting of 60% global equities and 40% bonds.

Periodic Table of Returns
15 Years

Rank	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2008-2022 Ann. Ret.	2008-2022 Std. Dev.
1	Fixed Income 5.24	Emerging 78.51	REIT 28.07	REIT 9.37	Emerging 18.22	Small Cap 38.82	REIT 32.01	REIT 4.48	Small Cap 21.31	Emerging 37.28	Cash 1.86	Large Cap 31.43	Large Cap 20.96	REIT 45.91	Cash 1.50	Large Cap 8.77	REIT 24.17
2	Cash 1.79	High Yield 58.21	Small Cap 26.85	Fixed Income 7.84	International 17.32	Large Cap 33.11	Large Cap 13.24	Large Cap 0.92	High Yield 17.13	International 25.03	Fixed Income 0.01	Small Cap 25.52	Small Cap 19.96	Large Cap 26.54	High Yield -11.19	Small Cap 7.16	Emerging 21.53
3	Asset Allocated -23.22	International 31.78	Emerging 18.88	High Yield 4.98	REIT 17.12	International 22.78	Fixed Income 5.97	Fixed Income 0.55	Large Cap 12.05	Large Cap 21.69	High Yield -2.08	REIT 23.10	Emerging 18.31	Small Cap 14.82	Fixed Income -13.01	High Yield 6.09	Small Cap 21.11
4	High Yield -26.16	REIT 28.46	Large Cap 16.09	Large Cap 1.51	Large Cap 16.42	Asset Allocated 12.87	Small Cap 4.89	Cash 0.03	Emerging 11.19	Asset Allocated 15.80	REIT -4.22	International 22.01	Asset Allocated 12.76	International 11.26	International -14.45	REIT 5.52	International 18.13
5	Small Cap -33.79	Large Cap 28.43	High Yield 15.12	Cash 0.08	Small Cap 16.35	High Yield 7.44	Asset Allocated 4.88	International -0.81	REIT 6.68	Small Cap 14.65	Large Cap -4.78	Asset Allocated 19.45	International 7.82	Asset Allocated 10.51	Asset Allocated -16.22	Asset Allocated 4.49	Large Cap 16.63
6	Large Cap -37.61	Small Cap 27.17	Asset Allocated 10.22	Asset Allocated -1.27	High Yield 15.81	REIT 1.22	High Yield 2.45	Asset Allocated -1.21	Asset Allocated 5.78	High Yield 7.49	Asset Allocated -5.64	Emerging 18.42	Fixed Income 7.51	High Yield 5.28	Large Cap -19.13	Fixed Income 2.66	Asset Allocated 10.42
7	REIT -39.19	Asset Allocated 23.15	International 7.75	Small Cap -4.18	Asset Allocated 11.36	Cash 0.05	Cash 0.03	Small Cap -4.41	Fixed Income 2.65	REIT 3.76	Small Cap -11.01	High Yield 14.32	High Yield 7.11	Cash 0.05	Emerging -20.09	International 1.81	High Yield 10.12
8	International -43.38	Fixed Income 5.93	Fixed Income 6.54	International -12.14	Fixed Income 4.21	Fixed Income -2.02	Emerging -2.19	High Yield -4.47	International 1.01	Fixed Income 3.54	International -13.79	Fixed Income 8.72	Cash 0.58	Fixed Income -1.54	Small Cap -20.44	Emerging 0.65	Fixed Income 3.97
9	Emerging -53.33	Cash 0.16	Cash 0.13	Emerging -18.42	Cash 0.07	Emerging -2.59	International -4.89	Emerging -14.92	Cash 0.27	Cash 0.84	Emerging -14.58	Cash 2.25	REIT -11.20	Emerging -2.54	REIT -25.96	Cash 0.05	Cash 0.26

Source: Morningstar. Asset classes are proxied with the following indices: Fixed Income – Bloomberg US Aggregate Bond, International – MSCI EAFE, Emerging Markets – MSCI EM, Large Cap – Russell 1000, High Yield – Bloomberg US Corporate High Yield, Small Cap – Russell 2000, REIT – DJ US Select REIT, Cash – FTSE Treasury Bill 3 Month, Asset Allocated – 60% MSCI ACWI and 40 Bloomberg US Aggregate Bond rebalanced monthly.

The performance of each asset category varies widely over the 15-year period. The asset allocation portfolio theoretically produces a smoother performance pattern while still delivering compelling performance.

This shows the benefits that diversification can have over the long-term. The diversified portfolio will not be the highest performing in any given year, but it can potentially produce strong performance with a smoother ride.
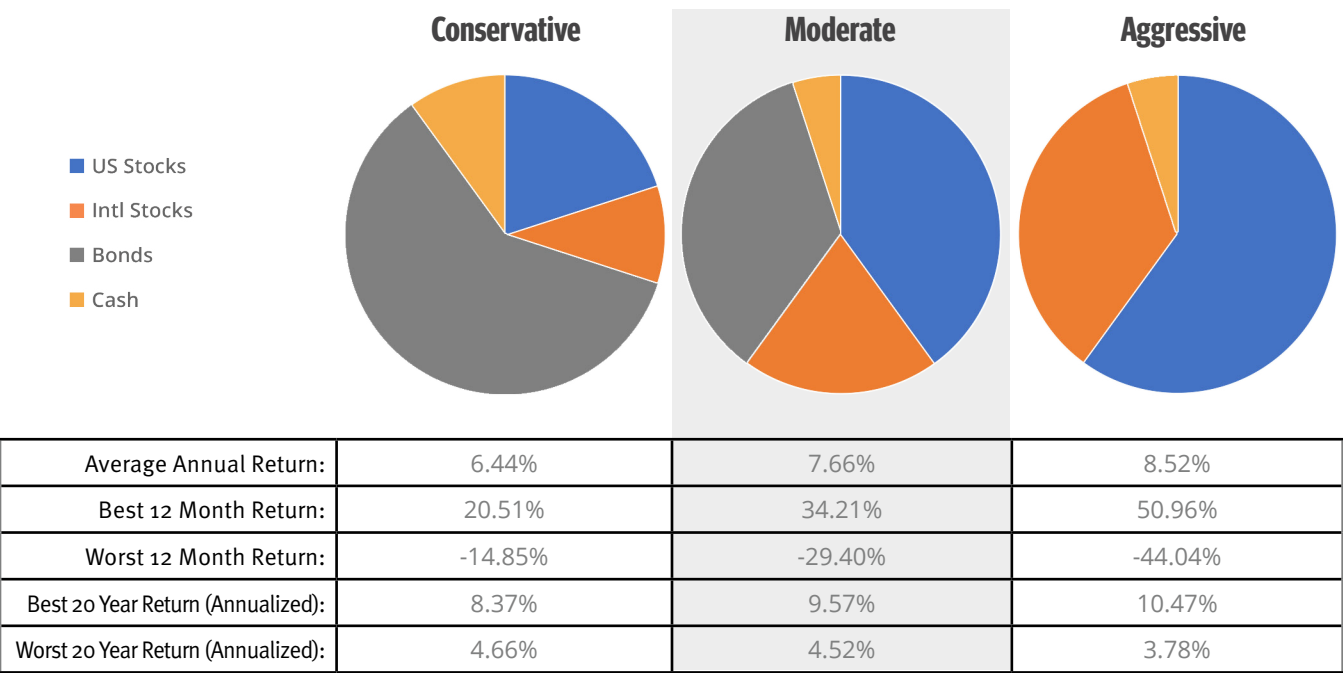
A Simple Example of How It Works

When it comes to diversification, a picture is worth a thousand words. The graphic below shows performance characteristics for three portfolios. They are all comprised of the same four asset classes: US stocks, international stocks, US bonds, and cash.

The average annual return for each portfolio from 1987 through December 31, 2022 is shown, as are the best and worst 12-month and 20-year returns. You can see that increasing the allocation to stocks improves long-term return, but it also increases the volatility of the portfolio—that is, the range of returns that the portfolio experiences over time.

This type of information allows a skilled financial advisor to match a client with an appropriate portfolio. Considering the client's return needs, tolerance for risk, and other factors, the advisor can design or select for the client a portfolio that best fits their needs and preferences.

Conservative   **Moderate**   **Aggressive**

Legend:
- US Stocks
- Intl Stocks
- Bonds
- Cash

	Conservative	Moderate	Aggressive
Average Annual Return:	6.44%	7.66%	8.52%
Best 12 Month Return:	20.51%	34.21%	50.96%
Worst 12 Month Return:	-14.85%	-29.40%	-44.04%
Best 20 Year Return (Annualized):	8.37%	9.57%	10.47%
Worst 20 Year Return (Annualized):	4.66%	4.52%	3.78%

Data Source: Morningstar. Asset mix performance is based on weighted average of monthly performance for proxy indices for each asset class. All mixes are rebalanced monthly. Indices used as proxy are: US Stocks – S&P 500, Intl Stocks – MSCI EAFE, Bonds – Bloomberg Barclays US Aggregate Bond, Cash – ICE Bank of America Merrill Lynch US 3 Month Treasury Bill. The above information is hypothetical in nature and for illustrative purposes only. It does not rely on actual investment results and is not a guarantee of future results. Actual performance will vary and be reduced by any advisory or investment management fees and other account-related expenses.