

# What You Might Not Know About Asset Class Returns

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If you were to choose a word to describe *short-term* returns among components of international markets, “noisy” might fit the bill. This is exactly what we see in **Figure 1**. There’s considerable variability year to year between global stock and bond asset class returns.

While we often hear claims of which asset classes should be “in favor” or which may soon meet their demise, the data highlights both the difficulty in predicting short-term winners and how quickly the picture can change.

Take 2022 as an example. Cash – the lowest returning asset class over the last 15 years – was the top-performing asset class over the year, besting U.S. large-cap growth stocks by more than 30%. U.S. large growth stocks were the worst-performing asset class over the year after topping the charts in two of the prior three years.

With the benefit of hindsight, it’s easy to say that cash did well relative to stocks and bonds over a period of rising interest rates and heightened uncertainty. But on the first day of 2022, did you think this would be the result? Even if this had been your view, to achieve returns like those in **Figure 1** would have required the conviction to buy and hold this investment throughout the entire year – no easy task.

The upside for those who invest over the long term in broadly diversified portfolios that spread investments among global asset classes is that total portfolio returns become less reliant on any single component, thereby reducing “idiosyncratic” (i.e., diversifiable) risk.

By holding a classic mix of 60% global equities and real estate and 40% global bonds, for example, you can have confidence that your portfolio will neither have the highest nor the lowest return compared to the market’s components. That’s the beauty of diversification, which we believe should be a foundational principle of building sound asset allocations.

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Figure 1 | Asset Class Returns (%) Ranked From Highest to Lowest (2008-2022)

2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	FULL PERIOD	BEST YEAR	WORST YEAR	
US Gov't Bonds 12.39	Emerging Markets 82.36	US Small Growth 29.09	US Gov't Bonds 9.02	Global Real Estate 22.38	US Small Growth 43.30	Global Real Estate 21.54	US Large Growth 5.67	US Small Value 31.74	Emerging Markets 36.83	Cash/Treasury Bills 1.83	US Large Growth 36.39	US Large Growth 38.49	Global Real Estate 31.38	Cash/Treasury Bills 1.52	US Large Growth	10.32	38.49	-38.44
Global Bonds 4.79	Int'l Small Value 52.55	US Small Value 24.50	US Credit Bonds 8.35	Int'l Small Value 19.51	US Small Value 34.52	S&P 500 13.69	S&P 500 1.38	US Large Value 17.34	US Large Growth 30.21	US Gov't Bonds 0.88	S&P 500 31.49	US Small Growth 34.63	S&P 500 28.71	Int'l Large Value -5.64	S&P 500	8.80	32.39	-37.00
Cash/Treasury Bills 1.77	US Large Growth 37.21	Global Real Estate 22.09	Global Bonds 5.64	Emerging Markets 18.68	US Large Growth 33.48	US Large Value 13.45	Int'l Small Value 1.06	S&P 500 11.96	Int'l Small Value 27.93	Global Bonds -1.20	US Small Growth 28.48	S&P 500 18.40	US Small Value 28.27	US Large Value -7.54	US Small Growth	7.26	43.30	-38.54
US Credit Bonds -3.08	Int'l Large Value 36.75	Int'l Small Value 20.66	US Large Growth 2.64	US Small Value 18.05	US Large Value 32.53	US Large Growth 13.05	US Gov't Bonds 0.86	US Small Growth 11.32	Int'l Large 24.21	US Large Growth -1.51	US Large Value 26.54	Emerging Markets 18.39	US Large Growth 27.60	US Gov't Bonds -12.32	US Large Value	6.96	32.53	-36.85
US Small Value -28.92	US Small Growth 34.47	Emerging Markets 19.90	S&P 500 2.11	US Large Value 17.51	S&P 500 32.39	US Credit Bonds 7.53	Cash/Treasury Bills 0.03	Emerging Markets 9.90	US Small Growth 22.17	US Credit Bonds -2.11	Global Real Estate 23.12	US Credit Bonds 9.35	US Large Value 25.16	Int'l Small Value -14.00	US Small Value	6.81	34.52	-28.92
US Large Value -36.85	Int'l Large 33.67	US Large Growth 16.71	Global Real Estate 0.61	Int'l Large Value 17.29	Int'l Small Value 27.73	US Small Growth 5.60	Global Real Estate -0.44	Int'l Small Value 7.87	S&P 500 21.83	S&P 500 -4.38	Int'l Small Value 22.83	Global Bonds 9.20	Int'l Small Value 13.27	Int'l Large -14.29	US Credit Bonds	3.73	16.04	-15.26
S&P 500 -37.00	Global Real Estate 31.72	US Large Value 15.51	US Large Value 0.39	Int'l Large 16.41	Int'l Large Value 21.47	US Gov't Bonds 4.92	US Credit Bonds -0.77	Int'l Large Value 7.39	Int'l Large Value 21.04	Global Real Estate -5.90	Int'l Large 22.49	US Gov't Bonds 7.94	Int'l Large Value 13.26	US Small Value -14.48	International Small Value	3.44	52.55	-45.94
US Large Growth -38.44	S&P 500 26.46	S&P 500 15.06	Cash/Treasury Bills 0.07	S&P 500 16.00	Int'l Large 21.02	US Small Value 4.22	US Small Growth -1.38	US Large Growth 7.08	US Large Value 13.66	US Large Value -8.27	US Small Value 22.39	Int'l Large 7.59	Int'l Large 12.62	US Credit Bonds -15.26	Global Real Estate	3.07	31.72	-45.69
US Small Growth -38.54	US Small Value 20.58	Int'l Large 8.95	US Small Growth -2.91	US Large Growth 15.26	Global Real Estate 1.73	Global Bonds 0.59	Int'l Large -3.04	Global Real Estate 5.77	US Small Value 7.84	US Small Growth -9.31	Emerging Markets 17.65	US Small Value 4.63	US Small Growth 2.83	Global Bonds -16.25	US Government Bonds	2.12	12.39	-12.32
Int'l Large -43.56	US Large Value 19.69	US Credit Bonds 8.47	US Small Value -5.50	US Small Growth 14.59	Cash/Treasury Bills 0.05	Cash/Treasury Bills 0.03	Global Bonds -3.15	US Credit Bonds 5.63	Global Real Estate 7.41	US Small Value -12.86	Int'l Large Value 17.02	US Large Value 2.80	Cash/Treasury Bills 0.04	S&P 500 -18.11	International Large Cap	1.84	33.67	-43.56
Int'l Large Value -44.29	US Credit Bonds 16.04	Global Bonds 5.54	Int'l Large Value -11.69	US Credit Bonds 9.37	US Credit Bonds -2.01	Emerging Markets -1.79	US Large Value -3.83	Int'l Large 2.75	Global Bonds 7.39	Int'l Large -14.09	US Credit Bonds 13.80	Int'l Small Value 2.58	Emerging Markets -0.28	Emerging Markets -19.83	Global Bonds	1.48	9.20	-16.25
Global Real Estate -45.69	Global Bonds 6.93	US Gov't Bonds 5.52	Int'l Large -12.21	Global Bonds 4.32	Emerging Markets -2.20	Int'l Large -4.32	US Small Value -7.47	Global Bonds 2.09	US Credit Bonds 6.18	Emerging Markets -15.05	Global Bonds 6.84	Cash/Treasury Bills 0.56	US Credit Bonds -1.08	Global Real Estate -24.36	International Large Value	1.07	36.75	-44.29
Int'l Small Value -45.94	Cash/Treasury Bills 0.16	Int'l Large Value 4.82	Int'l Small Value -16.81	US Gov't Bonds 2.02	US Gov't Bonds -2.60	Int'l Large Value -5.41	Int'l Large Value -7.68	US Gov't Bonds 1.05	US Gov't Bonds 2.30	Int'l Large Value -15.06	US Gov't Bonds 6.83	Int'l Large Value -3.22	US Gov't Bonds -2.28	US Small Growth -26.36	Emerging Markets All Cap	0.86	82.36	-53.78
Emerging Markets -53.78	US Gov't Bonds -2.20	Cash/Treasury Bills 0.13	Emerging Markets -19.49	Cash/Treasury Bills 0.09	Global Bonds -2.60	Int'l Small Value -5.87	Emerging Markets -13.86	Cash/Treasury Bills 0.28	Cash/Treasury Bills 0.82	Int'l Small Value -18.38	Cash/Treasury Bills 2.22	Global Real Estate -9.09	Global Bonds -4.71	US Large Growth -29.14	Cash/Treasury Bills	0.64	2.22	0.03

Data over the 15-year period from 1/1/2008-12/31/2022. Source: Morningstar. Return periods greater than one year are annualized. The corresponding Russell indices represents U.S. size and style asset classes. The corresponding MSCI World ex USA indices represent international equity asset classes. Emerging markets equity is represented by the MSCI EM IMI Index. The corresponding Bloomberg Total Return indices represent bond asset classes. The S&P Global REIT Index represents global real estate. It is not possible to invest directly in an index. Past performance is no guarantee of future results.

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To peel back the onion a bit further on asset class returns, a perhaps lesser-known fact is that there's no single, absolute definition of each asset class. As **Figure 2** shows, while high variability exists across asset classes over time, there's also high variability within asset classes when we examine different indexes designed to represent each one.

In **panels A through E of Figure 2**, we show calendar year returns for each of the last 15 years and annualized returns over the full period for indexes from well-known providers representing various U.S. equity market segments. The results highlight that these different measures of an asset class can yield meaningfully different returns despite labels that might suggest little difference between them.

To demonstrate the variability of returns among indexes within each asset class, we show the difference between the highest and lowest return index in each year and the full period. The largest single-year difference in each asset class ranges from about 9% to nearly 24% (highlighted in black at the bottom of each asset class panel). If you look at the maximum differences over the full 15-year period, the range narrows but is still sizable at about 1.75% to 2.50%

## Why are Index Returns within an Asset Class So Variable?

The reality is that splitting the market into pieces requires making decisions about how each component will be defined. These decisions can be subjective and vary from one instance to the next.

For example, how does one define a small cap company? A “value” company? A “growth” company? Different definitions lead to differences in the securities selected, differences in characteristics, and, as shown, differences in returns.

Index holdings are also typically rebalanced (or updated) periodically. In between rebalance dates, company prices and fundamentals are disregarded. Decisions about how often to rebalance an index, such as once a year or quarterly, and on what dates can be arbitrary. Different decisions between index providers can lead to further differences in outcomes.

We believe this highlights the importance of looking beyond a name and understanding *what* you own – another sound principle for designing asset allocations. Building broadly diversified portfolios that harness the potential of global markets is a solid starting point. Still, when it comes to your choices within an allocation, it would be helpful to remember that a name can only tell you so much.

It may let you know you're in the right vicinity but focusing on a more precise location may benefit overall portfolio returns. Taking a closer look before making an allocation can help avoid unexpected results. When investing, we know we will sometimes be disappointed, but we should try to avoid surprises wherever possible.

# What You Might Not Know About Asset Class Returns

Figure 2 | What's in a Name?

Panel A – U.S. Large Cap Value Index Returns (%) Ranked from Highest to Lowest (2008-2022)

	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	FULL PERIOD
CRSP	-35.30	21.18	16.56	3.74	17.68	33.34	13.45	-0.79	20.01	17.16	-5.40	31.93	7.37	26.51	-0.35	CRSP US Large Cap Value 8.20
MSCI	-36.05	19.69	16.06	1.43	17.51	32.53	13.29	-0.86	17.40	16.31	-5.94	27.72	2.80	26.29	-2.01	Wilshire US Large Value 7.73
Morningstar	-36.06	18.42	15.51	1.35	16.71	31.99	13.00	-2.13	17.34	15.36	-6.90	26.54	2.26	25.16	-5.22	S&P 500 Value 7.06
Wilshire	-36.62	16.98	15.17	0.64	14.56	31.78	12.36	-2.82	16.93	14.42	-7.96	25.85	1.36	24.90	-5.51	Russell 1000 Value 6.96
Russell	-36.85	16.91	15.10	0.39	14.06	31.22	11.36	-3.13	15.83	14.25	-8.27	25.53	0.05	24.53	-6.96	Morningstar US LM Value 6.86
S&P	-39.22	16.39	13.46	-0.48	13.96	30.24	9.37	-3.83	15.44	13.66	-8.95	24.61	-1.65	23.28	-7.54	MSCI USA Value 6.21
MAX - MIN RETURN	3.93	4.78	3.10	4.22	3.72	3.10	4.08	3.04	4.57	3.49	3.55	7.31	9.01	3.24	7.18	1.99

Panel B – U.S. Large Cap Growth Index Returns (%) Ranked from Highest to Lowest (2008-2022)

	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	FULL PERIOD
S&P	-34.92	44.37	16.71	4.65	17.98	34.95	14.89	7.71	8.97	31.15	2.94	37.31	42.74	32.01	-29.14	Russell 1000 Growth 10.32
Wilshire	-37.49	37.21	16.10	2.64	16.90	33.48	14.38	5.67	7.08	30.21	-0.01	37.31	40.27	28.86	-29.41	S&P 500 Growth 10.08
Russell	-38.44	36.88	15.77	1.97	16.73	32.75	13.96	5.52	6.89	28.27	-1.51	36.39	38.86	27.60	-29.54	Wilshire US Large Growth 9.82
CRSP	-38.67	36.13	15.05	1.56	15.26	32.46	13.95	4.19	6.16	27.86	-2.32	35.79	38.49	27.30	-32.08	MSCI USA Growth 9.69
MSCI	-39.22	35.92	15.02	0.58	15.20	32.27	13.69	3.54	6.07	27.71	-3.34	33.81	35.36	26.08	-33.13	CRSP US Large Cap Growth 9.16
Morningstar	-41.87	31.57	12.91	-0.66	14.61	31.75	13.05	3.38	1.79	27.44	-3.58	31.13	33.47	21.47	-40.36	Morningstar US Large Growth 8.56
MAX - MIN RETURN	6.95	12.80	3.80	5.31	3.37	3.20	1.84	4.32	7.18	3.71	6.52	6.18	9.28	10.54	11.23	1.76

Data over the 15-year period from 1/1/2008-12/31/2022. Source: Morningstar. Return periods greater than one year are annualized. It is not possible to invest directly in an index. Past performance is no guarantee of future results.

# What You Might Not Know About Asset Class Returns

Figure 2 | What's in a Name? (Continued)

Panel C – U.S. Small Cap Index Returns (%) Ranked from Highest to Lowest (2008-2022)

	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	FULL PERIOD
S&P	Wilshire	Wilshire	S&P	Wilshire	S&P	CRSP	S&P	S&P	MSCI	S&P	CRSP	Russell	S&P	S&P	S&P SmallCap 600	
-31.07	41.79	28.94	1.02	18.76	41.31	7.54	-1.97	26.56	16.75	-8.48	27.35	19.96	26.82	-16.10	8.89	
Russell	CRSP	Morningstar	CRSP	CRSP	Wilshire	MSCI	CRSP	Wilshire	CRSP	CRSP	MSCI	CRSP	Wilshire	MSCI	CRSP US Small Cap	
-33.79	40.11	28.37	-1.85	18.59	39.01	7.07	-3.68	22.41	16.24	-9.33	26.74	19.07	19.17	-17.55	8.64	
Morningstar	MSCI	CRSP	Morningstar	MSCI	Russell	Morningstar	MSCI	Russell	Morningstar	MSCI	Wilshire	MSCI	MSCI	CRSP	MSCI USA Small Cap	
-36.07	39.07	27.98	-2.57	17.52	38.82	6.92	-4.11	21.31	15.03	-10.40	26.21	18.32	19.11	-17.64	8.35	
MSCI	Morningstar	MSCI	Wilshire	Morningstar	CRSP	Wilshire	Russell	Morningstar	Russell	Wilshire	Morningstar	Wilshire	CRSP	Morningstar	Wilshire US Small	
-36.18	37.75	27.48	-3.40	16.49	38.48	6.80	-4.41	20.25	14.65	-10.84	25.96	17.42	17.71	-18.46	8.24	
CRSP	Russell	Russell	MSCI	Russell	Morningstar	S&P	Wilshire	MSCI	Wilshire	Russell	Russell	Morningstar	Morningstar	Wilshire	Morningstar US Small	
-36.81	27.17	26.85	-3.43	16.35	37.91	5.76	-4.86	19.15	13.45	-11.01	25.52	16.41	16.25	-18.65	7.69	
Wilshire	S&P	S&P	Russell	S&P	MSCI	Russell	Morningstar	CRSP	S&P	Morningstar	S&P	S&P	Russell	Russell	Russell 2000	
-37.76	25.57	26.31	-4.18	16.33	37.63	4.89	-4.88	18.26	13.23	-12.11	22.78	11.29	14.82	-20.44	7.16	
MAX - MIN RETURN	6.69	16.22	2.63	5.19	2.44	3.68	2.65	2.91	8.29	3.52	3.63	4.57	8.67	12.00	4.34	1.73

Panel D – U.S. Small Cap Value Index Returns (%) Ranked from Highest to Lowest (2008-2022)

	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	FULL PERIOD
Russell	Morningstar	CRSP	CRSP	Wilshire	S&P	CRSP	Wilshire	Russell	CRSP	Wilshire	S&P	Wilshire	Morningstar	Morningstar	CRSP US Small Cap Value	
-28.92	40.28	27.18	0.01	21.52	39.98	10.63	-4.36	31.74	11.83	-12.04	24.54	6.16	31.79	-6.60	9.33	
S&P	CRSP	Wilshire	S&P	CRSP	CRSP	Morningstar	CRSP	S&P	S&P	CRSP	Wilshire	CRSP	S&P	CRSP	S&P SmallCap 600 Value	
-29.51	37.81	26.76	-1.38	20.50	38.47	10.03	-4.64	31.32	11.51	-12.27	23.08	5.75	30.95	-9.27	8.43	
Morningstar	Wilshire	Morningstar	Morningstar	Morningstar	Morningstar	Wilshire	MSCI	Morningstar	MSCI	S&P	CRSP	Russell	MSCI	MSCI	Morningstar US Small Value	
-31.67	37.45	25.96	-1.84	18.30	35.71	9.09	-5.89	27.96	8.44	-12.64	22.76	4.63	29.77	-10.33	8.28	
MSCI	MSCI	S&P	MSCI	S&P	Russell	S&P	Wilshire	Morningstar	Morningstar	Russell	Russell	S&P	Wilshire	S&P	Wilshire US Small Value	
-32.66	29.21	24.72	-4.72	18.21	34.52	7.54	-6.67	27.68	8.40	-12.86	22.39	2.53	29.24	-11.04	8.13	
CRSP	S&P	Russell	Wilshire	Russell	Wilshire	MSCI	Russell	MSCI	Russell	MSCI	MSCI	MSCI	Russell	Wilshire	MSCI US Small Cap Value	
-33.19	22.85	24.50	-5.34	18.05	33.80	6.64	-7.47	26.62	7.84	-13.60	21.27	1.20	28.27	-14.22	6.94	
Wilshire	Russell	MSCI	Russell	MSCI	MSCI	Russell	Morningstar	CRSP	Wilshire	Morningstar	Morningstar	Morningstar	CRSP	Russell	Russell 2000 Value	
-33.92	20.58	24.21	-5.50	17.69	32.73	4.22	-8.65	24.82	7.42	-16.61	19.96	1.01	28.15	-14.48	6.81	
MAX - MIN RETURN	5.00	19.70	2.97	5.51	3.82	7.25	6.41	4.28	6.92	4.41	4.57	4.57	5.16	3.64	7.88	2.52

Data over the 15-year period from 1/1/2008-12/31/2022. Source: Morningstar. Return periods greater than one year are annualized. It is not possible to invest directly in an index. Past performance is no guarantee of future results.

# What You Might Not Know About Asset Class Returns

Figure 2 | What's in a Name? (Continued)

Panel E – U.S. Small Cap Growth Index Returns (%) Ranked from Highest to Lowest (2008-2022)

	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	FULL PERIOD
	S&P -32.94	Wilshire 46.40	Morningstar 31.26	S&P 3.62	MSCI 17.24	Wilshire 45.00	Russell 5.60	S&P 2.78	S&P 22.16	Morningstar 23.77	S&P -4.05	CRSP 32.75	Morningstar 43.52	S&P 22.62	S&P -21.08	S&P SmallCap 600 Growth 9.23
	Russell -38.54	CRSP 41.92	Wilshire 31.08	Morningstar -1.04	Wilshire 15.69	MSCI 44.24	MSCI 4.51	Morningstar -0.18	Wilshire 16.97	Russell 22.17	Morningstar -5.67	Wilshire 29.49	MSCI 36.71	MSCI 11.40	Wilshire -23.07	MSCI US Small Cap Growth 8.43
	CRSP -39.50	MSCI 41.79	MSCI 30.58	Wilshire -1.64	CRSP 15.39	Russell 43.30	Wilshire 4.23	Russell -1.38	MSCI 13.13	CRSP 21.90	CRSP -5.68	MSCI 29.29	CRSP 35.35	Wilshire 10.12	MSCI -26.26	Wilshire US Small Growth 8.28
	Morningstar -39.92	Russell 34.47	CRSP 29.43	MSCI -1.64	Russell 14.59	S&P 42.69	CRSP 3.98	CRSP -2.60	Russell 11.32	MSCI 21.22	MSCI -9.18	Russell 28.48	Russell 34.63	CRSP 5.71	Russell -26.36	CRSP US Small Cap Growth 7.63
	MSCI -40.17	Morningstar 32.98	Russell 29.09	Russell -2.91	S&P 14.56	Morningstar 41.86	S&P 3.87	MSCI -3.24	CRSP 10.62	Wilshire 19.55	Russell -9.31	Morningstar 27.60	Wilshire 29.66	Russell 2.83	CRSP -28.44	Russell 2000 Growth 7.26
	Wilshire -41.26	S&P 28.35	S&P 27.99	CRSP -3.08	Morningstar 14.50	CRSP 38.44	Morningstar 2.46	Wilshire -5.28	Morningstar 9.61	S&P 14.79	Wilshire -9.71	S&P 21.13	S&P 19.60	Morningstar -1.00	Morningstar -33.31	Morningstar US Small Growth 6.76
MAX - MIN RETURN	8.31	18.05	3.27	6.70	2.74	6.56	3.15	8.06	12.55	8.98	5.65	11.62	<b>23.92</b>	23.62	12.23	2.47

Data over the 15-year period from 1/1/2008-12/31/2022. Source: Morningstar. Return periods greater than one year are annualized. It is not possible to invest directly in an index. Past performance is no guarantee of future results.