
Mind the Gap 2019

A Report on Investor Returns Around the Globe

Morningstar Manager Research

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Executive Summary

- ▶ Returns gaps generally decreased as a benign global equity market spared investors from the whipsaw effect that leads to bad timing decisions.
- ▶ The study found certain investment types and characteristics such as low volatility and lower fees led to higher investor returns.
- ▶ We improved our methodology to include exchange-traded funds and extinct funds for the first time. In addition, our calculation captured dynamic flows better than past iterations.
- ▶ Australia had the best investor return gaps, and Europe had the worst.

Our second global investor returns study found declining investor return gaps in most markets we studied. In addition, we found the best results in areas where investors are required to make a commitment to continued investment and the worst where returns are most volatile.

Our first global Mind the Gap study came out in 2017. Here as before, we compared asset-weighted internal rate of return data with category averages to see what was missed along the way because of poor timing. However, we made three refinements aimed at more precisely capturing returns.

First, we ran the data on share-class levels using monthly flows and returns for each share class. Then, we applied a portfolio method to the monthly data that allowed us to include funds that did not survive the measured time period.

We treated the final net assets before the fund is liquidated or merged as a sale. If those dollars went into another fund, we treated those incoming assets as a buy. Because fund mergers almost always occur within an asset class, those figures should be a wash on an asset-class basis.

The second change was in how we looked at fund flows when rolling up to aggregate levels. In the past, we weighted a fund's return based on its average of assets over the time period in question. In this iteration, we used a monthly portfolio method that allowed us to weight using funds' monthly flow figures to better capture the ups and downs in flows.

Third, for the first time, we included exchange-traded funds in our study. We compared monthly net assets at ETFs to infer a flow for the month. Essentially, it means we evaluated long-term investors in ETFs. There is huge intraday trading at ETFs that this study doesn't capture. The short-term ETF investors were thus mostly excluded from our calculation.

Data

For our study, we looked at 10-year return periods in the United States and five-year periods outside the U.S. We did so because monthly asset and return data are insufficient in many markets beyond 10 years. This means that the U.S. data is more heavily influenced by the dramatic bear market and rebound from 2008 and 2009, whereas our results for other markets are largely beyond the time period that saw the greatest gap in investor returns.

In all cases, we looked at returns and flows for the years ended 2014, 2015, 2016, 2017, and 2018. We then calculated an average of those because the start and end dates can have a big impact on investor returns. In general, the gap widens around dramatic market reversals such as those seen in 2008 and 2009 because some investors panic and sell near the bottom, thus missing out on a dramatic rebound. In steadier years, investors are less inclined to attempt to time markets.

We excluded asset classes and markets where there were not enough funds with complete data sets over the time period measured to allow us to calculate investor returns. This was most common for alternatives funds, which are relatively recent additions to the mutual fund world in some countries.

For Europe outside the United Kingdom, we looked at the three largest fund markets—France, Ireland, and Luxembourg—as a proxy. Funds from Ireland and Luxembourg are not only important for European investors but also show investor trends for Hong Kong, Singapore, and Taiwan because they are widely on sale in Asia beside locally domiciled products. We have on average 16,415 share classes for the Europe data set. In Asia, share-class-level net asset size data is less common. This led us to drop some markets that were previously included. We included South Korea and Taiwan across asset classes as well as Singapore equity funds.

To ensure that currency fluctuations did not affect the flow numbers, we used only the major currency for each region or domicile. So, the European data set includes only euro-denominated share classes; Singapore the local dollar; Taiwan the new Taiwan dollar; and South Korea the won.

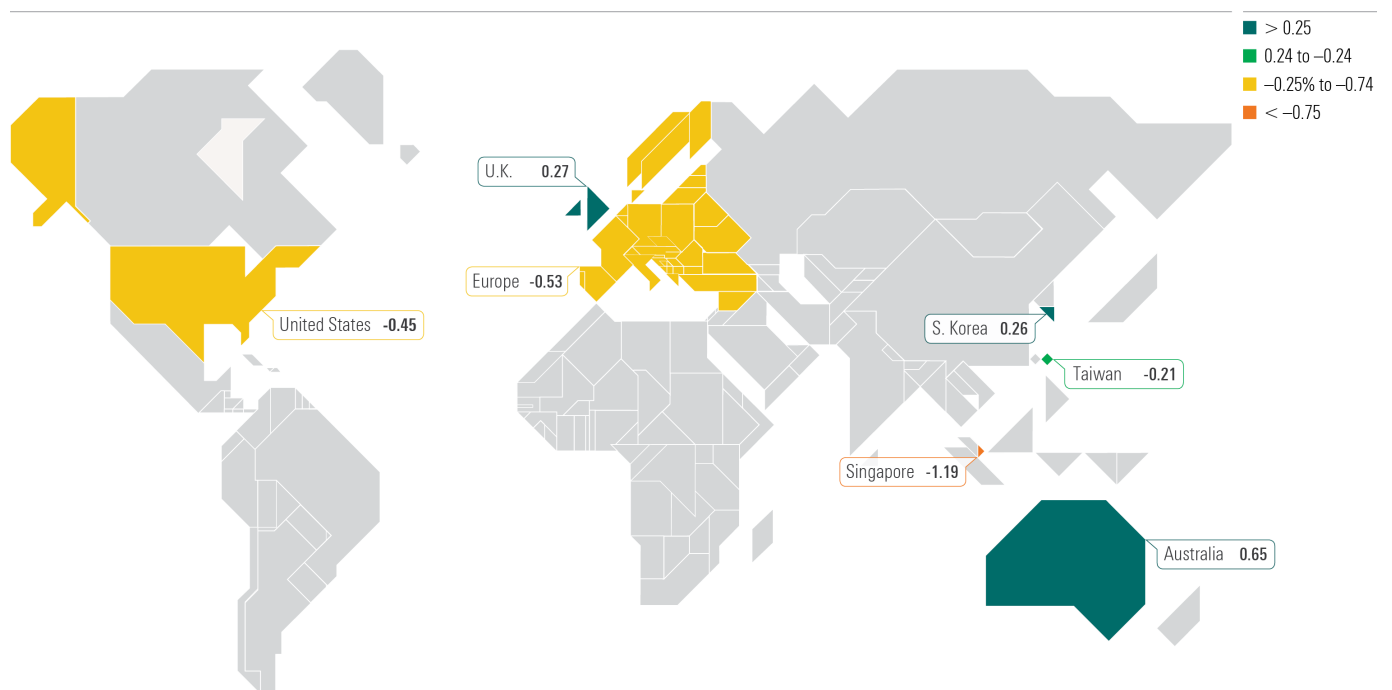
Downward-Trending Gaps

For this report, we examined 10-year results for the U.S. for each year-end from 2014-18. For other markets, we examined five-year results for each year-end from 2014-18.

We saw gaps decline from our last look in 2017. Overall, the U.S. had a gap of 45 basis points and Europe had a gap of 53 basis points. Australia and Korea had positive gaps of 65 basis points and 26 basis points. All are improvements over our prior study.

The likely explanation for these improvements is that when markets are relatively stable and trending upward, investors are less likely to make bad timing decisions.

Exhibit 1 Investor Return Gaps Around the World



Source: Morningstar Inc. Data as of 12/31/18.

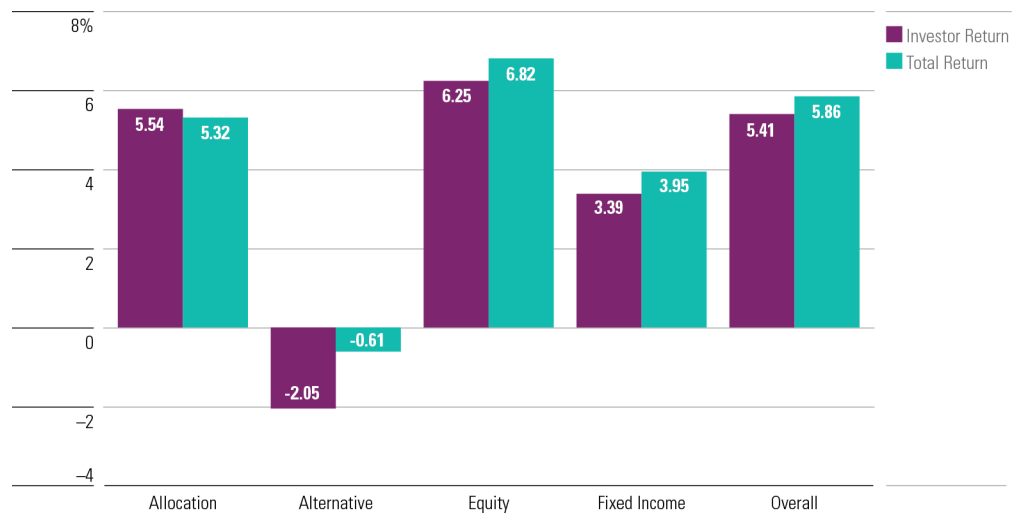
A second factor may be that global assets under management are increasing more rapidly than flows, so the impact of bad timing is lessened.

U.S.: Asset-Class Breakdown

If we drill down to broad category groups, we see some stark differences. On the one hand, U.S. allocation funds produced a positive gap of 0.22% on annualized returns of 5.54%. A positive gap means a majority of the money going in was well-timed. The reasons are instructive about what works best for investors.

We should also note that in the U.S., we excluded funds of funds from our overall figures but included them when we broke out asset-allocation funds because they are such a big part of the asset-allocation universe.

Exhibit 2 Average of Rolling 10-Year Investor Returns in the U.S.



Source: Morningstar Inc. Data as of 12/31/18.

First, because allocation funds are a mix of stocks and bonds, their returns are generally muted. As such, they tend to not produce huge returns that inspire the greedy to rush in, nor losses that cause the fearful to flee. Second, this is where target-date funds live. Target-date funds are fairly low-volatility funds depending on the retirement date, and they are held almost exclusively in 401(k)s, where most investors keep plugging away with contributions every paycheck through all the highs and lows of the markets. That combination of modest volatility and disciplined investing is what we should strive for.

On the other hand, we have alternatives. Alternative funds have low returns and are generally supposed to have the sort of low market correlation that makes them good diversifiers for portfolios—but they don't appear to have helped many. The average annualized return was negative 0.61%, and investors made things worse with bad timing that left them with an annualized loss of 2.05%, summing up to a gap of 144 basis points.

In the middle are equity and fixed-income funds, which have gaps of 56 basis points and 55 basis points, respectively. When one considers that the equity funds started with returns of 6.8% annualized versus 3.4% for bond funds, it makes bond funds the real disappointment here.

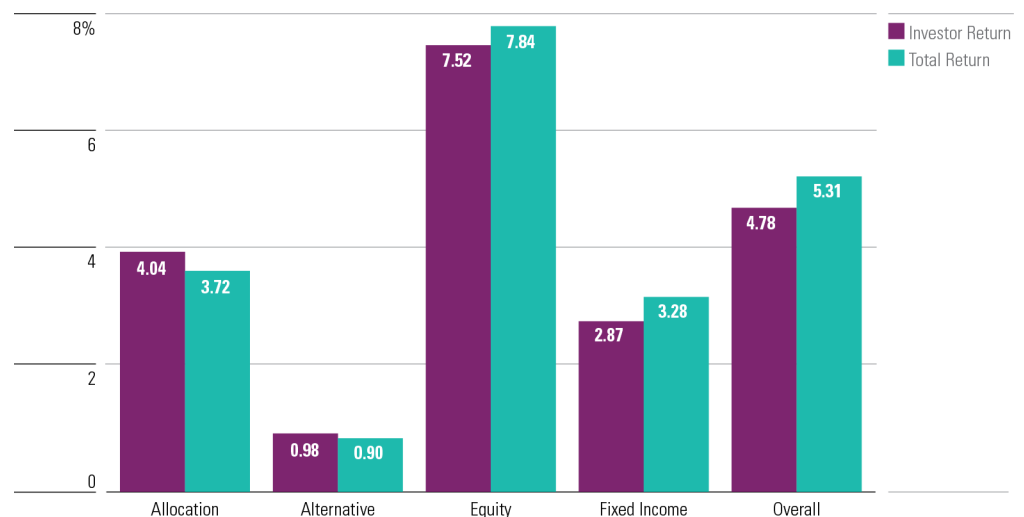
We have seen municipal-bond fund investors make things worse by selling after reading scary headlines that made the fundamentals seem worse than they were.

Europe

Of all groups included in this study, investors in European funds had the most difficulties in timing their investments, though they were not large. The overall gap was 53 basis points in the average five-year period. It is a slight improvement from our previous global study, but that study looked only at a single 10-year period (2006-16).

In Europe, fixed income has been the trickiest asset class to invest in, and that's no wonder: With government bond yields coming down to below-zero levels, investors sought higher returns from other, more volatile areas of the market such as emerging-markets debt and high yield with mixed results.

Exhibit 3 Average of Rolling Five-Year Investor Returns in Europe



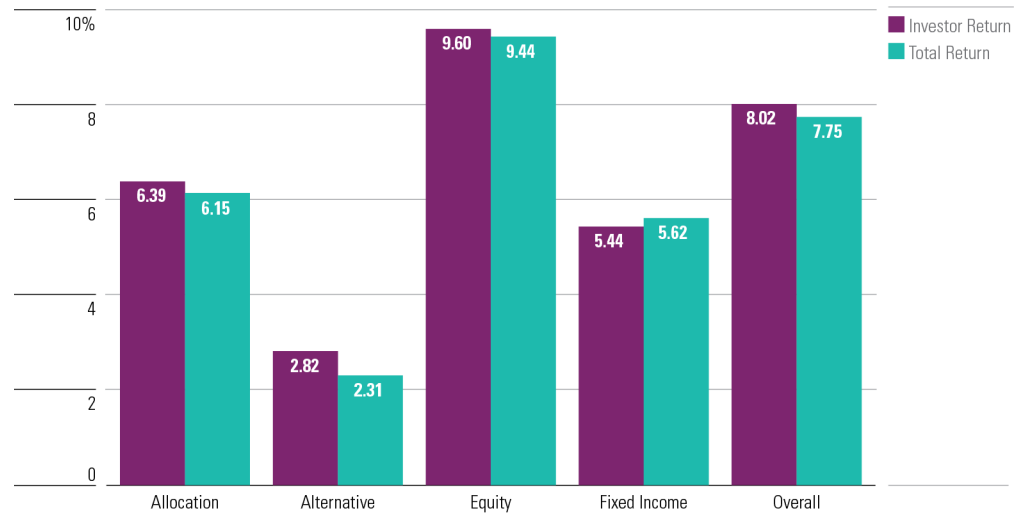
Source: Morningstar Inc. Data as of 12/31/18. Includes euro share classes from France, Ireland, and Luxembourg.

Good news for investors is the positive gap in allocation funds. Investors earned a higher return on their euros in allocation funds than they would have by just investing in all funds an equal amount at the start of the period. The asset class also enjoyed considerable popularity, so the fruits of this success have been spread widely.

United Kingdom

In our 2017 study, the U.K. results were among the most encouraging, and this time U.K. investors look to have fared even better. Gaps in the U.K. market have turned positive, to 27 basis points, with allocation, equity, and alternative funds all showing positive gaps. While it is probably true that U.K. investors have done a good job, the U.K. data is not as easy to interpret because of the 2014 regulation change called Retail Distribution Review. It channeled assets to new, cheaper share classes, which were mostly not included because of their inception dates. Also, compared with our European data, we have a lower coverage of U.K. funds' share-class numbers.

Exhibit 4 Average of Rolling Five-Year Investor Returns in the U.K.

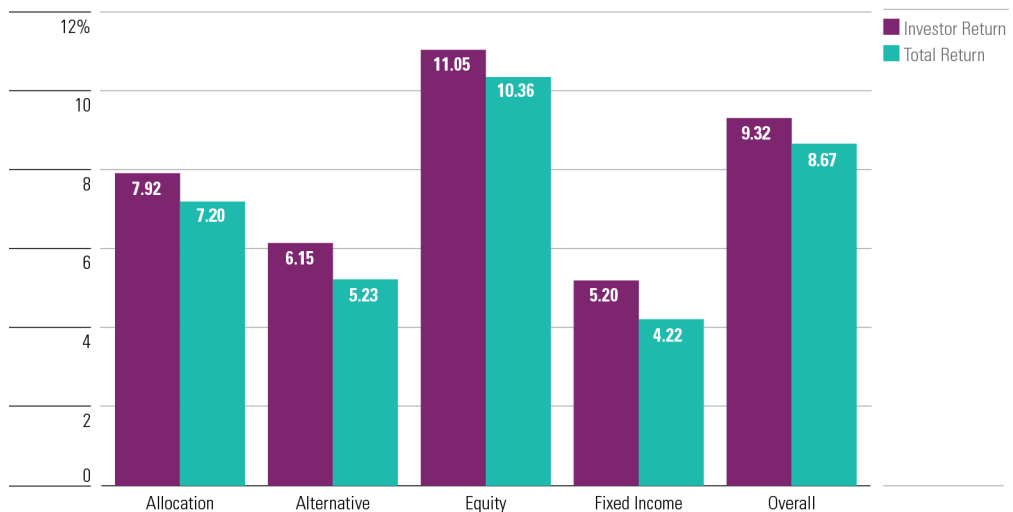


Source: Morningstar Inc. Data as of 12/31/18. Includes pound sterling share classes of U.K.-domiciled funds.

Australia

Australia is the prime example of how a market profits from the fact that funds are mainly used for long-term retirement saving, with investors sending some money regularly to funds rather than trying to time their investments. From 53 basis points in our last report, the positive returns gap in Australia grew to 65 basis points in this study when we considered a longer time period and included liquidated and merged share classes. All asset classes saw strong returns and positive gaps.

Exhibit 5 Average of Rolling Five-Year Investor Returns in Australia

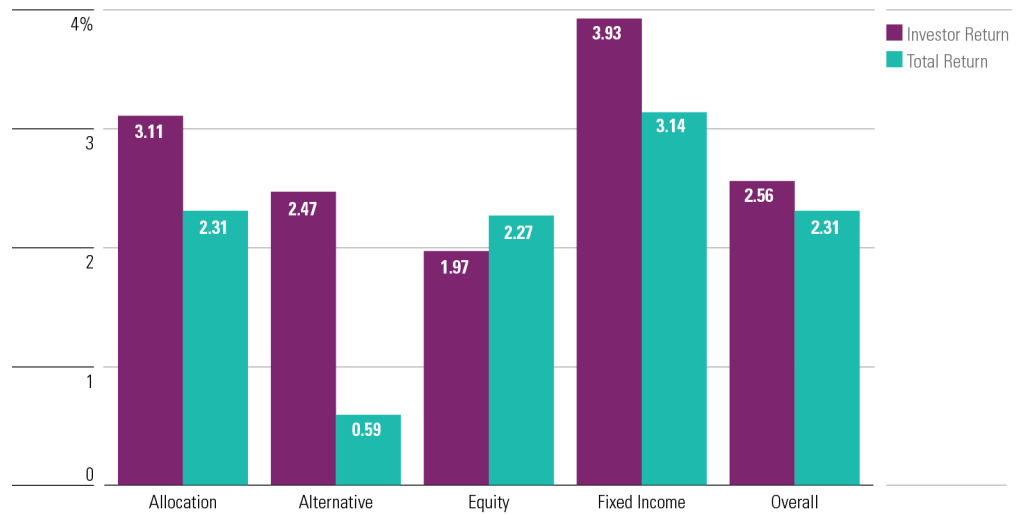


Source: Morningstar Inc. Data as of 12/31/18.

South Korea

Similar to Australia, regulation in South Korea has elements favoring long-term investing through automatic monthly plans. Fund investors saw positive gaps in all asset classes. Within allocation funds, the Korean gaps were clearly positive across all five rolling five-year periods, and that was also the case for Korean alternative funds, typically a weak spot for investors. Within fixed income, both investor and total returns have been coming down in recent years, but investor returns were nevertheless impressive for the average period.

Exhibit 6 Average of Rolling Five-Year Investor Returns in South Korea

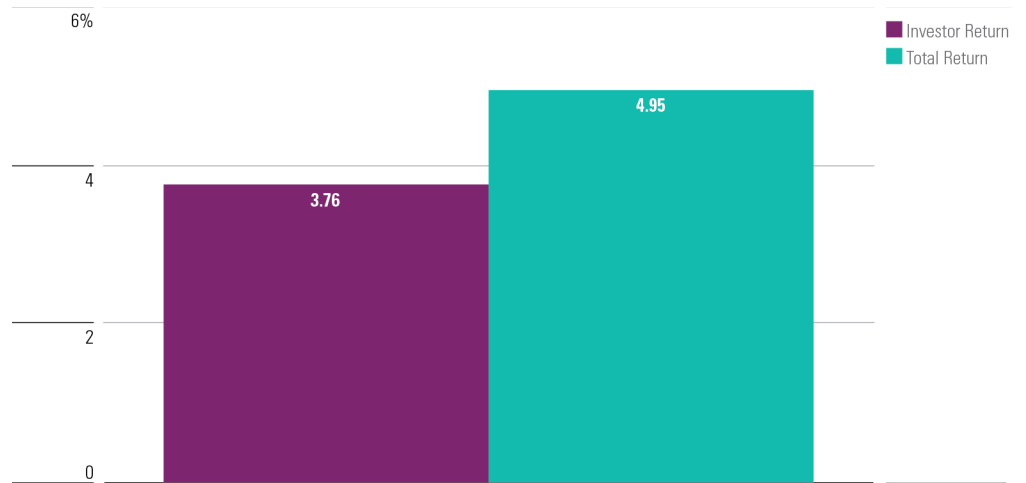


Source: Morningstar Inc. Data as of 12/31/18. Includes won share classes of South Korea-domiciled funds.

Singapore

Our Singapore data was limited by a lack of share-class-level net asset data. That is why it is prudent not to draw conclusions that are too strong. Within equity funds, we see a negative gap on average for the five five-year periods, but the gaps are getting smaller. This could be a weak signal that Singapore investors learned from their previous timing mistakes, but with such a small sample size, we should wait to draw any conclusions.

Exhibit 7 Average of Rolling Five-Year Investor Returns in Singapore



Source: Morningstar Inc. Data as of 12/31/18. Includes Singapore dollar share classes of Singapore-domiciled funds.

Taiwan

In Taiwan, fixed income has been challenging, with investor returns in negative territory in four of the five periods we examined. This means that the average investor lost value in bond funds, while the average fund returned a slight 1.36% return. In contrast, equity fund investors saw a small positive gap in Taiwan.

Exhibit 8 Average of Rolling Five-Year Investor Returns in Taiwan



Source: Morningstar Inc. Data as of 12/31/18. Includes New Taiwan dollar share classes of Taiwan-domiciled funds.

Factor Analysis

We can also look at how investors do when we group investments by expense ratio and volatility.

Exhibit 9 Australia Factor Ranking as Average of Five Five-Year Periods, by Asset Class

Group	Factor	Quintile	# of Share Classes (Average)	# of Share Classes Surviving Period (Average)	Average Return %		
					Total	Investor	Gap
Allocation	Fee	1	102	95	8.03	7.96	-0.06
		2	93	86	7.88	8.28	0.40
		3	97	85	7.31	7.89	0.58
		4	93	84	6.62	7.20	0.58
		5	94	88	6.42	6.95	0.53
	Volatility	1	92	85	5.14	5.73	0.59
		2	92	82	6.22	6.77	0.56
		3	91	83	7.49	8.14	0.65
		4	91	84	8.02	8.23	0.21
		5	92	86	8.87	8.76	-0.11
Equity	Fee	1	283	249	11.01	11.31	0.30
		2	252	214	10.84	10.37	-0.47
		3	265	230	10.39	11.10	0.71
		4	260	208	9.96	10.74	0.78
		5	257	226	9.57	9.41	-0.17
	Volatility	1	237	198	12.38	13.48	1.10
		2	236	201	10.83	11.05	0.22
		3	236	207	8.32	8.50	0.18
		4	236	207	9.05	9.31	0.26
		5	236	203	11.35	11.28	-0.07
Fixed Income	Fee	1	68	59	5.05	5.21	0.16
		2	60	49	4.81	5.59	0.78
		3	59	48	4.15	4.39	0.24
		4	60	47	3.69	4.58	0.89
		5	60	48	3.39	3.86	0.47
	Volatility	1	56	43	1.61	3.18	1.57
		2	56	48	4.39	4.76	0.37
		3	56	50	4.83	5.35	0.52
		4	56	47	4.64	5.77	1.14
		5	56	39	5.04	6.30	1.26

Source: Morningstar Inc. Data as of 12/31/18.

We broke down funds within asset class based on their standard deviation. For equity funds, investor returns were higher for less volatile funds and lower for more volatile funds. In Europe, Australia, and the U.S., the gap grew as volatility grew. However, in some Asian markets, the total returns declined even faster than investor returns so that we saw gaps shrink. However, even in those cases, investors fared better with low-volatility funds as evidenced by higher investor returns.

For allocation funds, we generally saw higher total returns for more volatile funds because equities outperformed bonds and higher volatility is associated with higher equity weightings.

Exhibit 10 U.S. Factor Ranking as Average of Five 10-Year Periods, by Asset Class

Group	Factor	Quintile	# of Share Classes (Average)	# of Share Classes Surviving Period (Average)	Average Return %		
					Total	Investor	Gap
Allocation	Fee	1	245	163	6.24	5.85	-0.38
		2	248	130	5.78	5.04	-0.73
		3	240	103	5.52	4.42	-1.10
		4	242	109	5.08	4.43	-0.66
		5	247	102	4.61	3.81	-0.80
	Volatility	1	166	82	5.23	6.71	1.48
		2	169	88	5.87	6.34	0.47
		3	169	92	5.70	5.45	-0.25
		4	169	100	5.67	5.35	-0.32
		5	170	96	5.73	4.76	-0.96
Equity	Fee	1	2,570	1,739	7.66	6.56	-1.10
		2	2,604	1,381	7.12	5.63	-1.49
		3	2,570	1,131	6.81	5.27	-1.54
		4	2,527	1,065	6.41	4.81	-1.60
		5	2,557	978	5.79	3.59	-2.20
	Volatility	1	1,927	946	7.30	7.11	-0.19
		2	1,983	960	7.18	6.98	-0.20
		3	1,981	996	6.63	5.59	-1.04
		4	1,980	1,001	7.18	5.77	-1.41
		5	2,033	1,008	6.58	4.72	-1.86
Fixed Income	Fee	1	1,243	856	4.31	3.52	-0.79
		2	1,263	703	4.11	3.27	-0.83
		3	1,202	561	4.02	3.14	-0.88
		4	1,230	601	3.73	2.61	-1.12
		5	1,216	518	3.42	2.80	-0.62
	Volatility	1	1,034	554	2.34	2.18	-0.16
		2	1,049	506	3.56	2.69	-0.86
		3	1,050	548	3.95	3.72	-0.23
		4	1,049	533	4.23	3.74	-0.49
		5	1,061	608	5.45	4.62	-0.83

Source: Morningstar Inc. Data as of 12/31/18.

Exhibit 11 Europe Factor Ranking as Average of Five Five-Year Periods, by Asset Class

Group	Factor	Quintile	# of Share Classes (Average)	# of Share Classes Surviving Period (Average)	Average Return %		
					Total	Investor	Gap
Allocation	Fee	1	649	489	4.52	4.95	0.43
		2	607	460	4.23	4.16	-0.07
		3	616	474	3.80	3.63	-0.17
		4	602	438	3.30	3.33	0.03
		5	617	415	2.35	3.09	0.73
	Volatility	1	448	312	2.06	3.02	0.96
		2	448	328	3.17	2.99	-0.18
		3	447	351	4.17	4.63	0.46
		4	448	356	4.97	5.41	0.44
		5	448	352	5.56	6.03	0.47
Alternative	Fee	1	228	130	1.37	1.12	-0.24
		2	186	119	1.35	1.23	-0.12
		3	189	111	0.66	1.38	0.71
		4	181	117	0.43	-0.12	-0.55
		5	194	120	0.49	-0.22	-0.70
	Volatility	1	99	64	0.04	1.31	1.27
		2	98	59	0.39	1.54	1.15
		3	98	59	-0.03	0.21	0.24
		4	98	62	1.39	0.42	-0.97
		5	98	71	1.26	0.97	-0.28
Equity	Fee	1	1,508	1,168	8.91	7.74	-1.17
		2	1,346	1,033	8.40	7.54	-0.86
		3	1,394	1,073	7.84	7.36	-0.48
		4	1,318	1,006	7.29	7.33	0.04
		5	1,405	1,040	6.80	7.12	0.32
	Volatility	1	1,030	780	9.80	9.81	0.01
		2	1,029	807	8.76	8.41	-0.36
		3	1,029	804	8.37	7.27	-1.09
		4	1,029	810	8.12	7.09	-1.03
		5	1,029	755	4.56	3.74	-0.82
Fixed Income	Fee	1	757	568	5.19	4.21	-0.97
		2	673	493	4.86	4.63	-0.23
		3	716	500	4.71	3.70	-1.01
		4	640	452	4.56	3.45	-1.11
		5	684	495	4.00	2.76	-1.24
	Volatility	1	590	448	0.97	1.33	0.36
		2	590	476	3.09	3.19	0.10
		3	590	470	3.79	3.89	0.10
		4	590	478	3.84	3.10	-0.73
		5	590	499	5.32	3.94	-1.38

Source: Morningstar Inc. Data as of 12/31/18.

For fixed income, we generally saw higher total returns alongside greater volatility. In Europe and the U.S., investor returns did not keep pace, leading to greater gaps as volatility increases. However, in the U.K. and Korea, there was no pattern to investor returns.

Exhibit 12 U.K. Factor Ranking as Average of Five Five-Year Periods, by Asset Class

Group	Factor	Quintile	# of Share Classes (Average)	# of Share Classes Surviving Period (Average)	Average Return %		
					Total	Investor	Gap
Allocation	Fee	1	196	158	7.01	6.33	-0.68
		2	191	157	6.16	6.54	0.38
		3	190	159	5.87	6.02	0.15
		4	186	139	5.82	6.60	0.77
		5	188	142	5.80	7.05	1.25
	Volatility	1	118	93	4.92	5.62	0.71
		2	118	89	5.72	6.03	0.31
		3	118	101	6.36	5.86	-0.50
		4	118	96	7.19	7.72	0.52
		5	118	92	7.76	7.48	-0.29
Equity	Fee	1	436	374	10.11	10.63	0.52
		2	374	312	9.89	10.04	0.15
		3	391	321	9.26	9.11	-0.15
		4	380	319	9.02	8.80	-0.22
		5	364	265	8.72	9.11	0.39
	Volatility	1	315	272	10.25	10.74	0.49
		2	315	258	9.82	9.81	-0.02
		3	315	268	9.77	9.47	-0.30
		4	315	247	9.65	9.50	-0.15
		5	315	253	7.96	6.54	-1.42
Fixed Income	Fee	1	168	124	6.23	6.36	0.13
		2	143	101	5.92	4.97	-0.95
		3	143	104	5.41	5.15	-0.26
		4	141	108	5.30	5.20	-0.10
		5	134	97	5.10	5.31	0.21
	Volatility	1	112	77	4.41	5.11	0.70
		2	111	88	5.63	5.40	-0.24
		3	112	78	6.50	6.58	0.08
		4	111	80	6.02	5.12	-0.89
		5	112	85	6.03	5.94	-0.08

Source: Morningstar Inc. Data as of 12/31/18.

When we look at fees, the pattern is clear, but there were exceptions. Low-cost funds tend to lead to higher total returns and higher investor returns. Costs are good predictors of performance, so this makes intuitive sense.

Exhibit 13 South Korea Factor Ranking as Average of Five Five-Year Periods, by Asset Class

Group	Factor	Quintile	# of Share Classes (Average)	# of Share Classes Surviving Period (Average)	Average Return %		
					Total	Investor	Gap
Allocation	Fee	1	214	159	2.51	3.44	0.92
		2	189	136	2.35	2.57	0.22
		3	191	117	1.94	2.33	0.39
		4	200	111	1.96	3.04	1.08
		5	189	86	2.09	3.10	1.01
	Volatility	1	125	60	1.82	4.32	2.50
		2	124	72	2.01	2.41	0.39
		3	124	82	2.36	2.72	0.36
		4	124	89	2.57	2.64	0.07
		5	125	78	2.33	4.09	1.76
Alternative	Fee	1	33	24	-4.42	-1.68	2.74
		2	28	20	-3.97	-0.61	3.36
		3	28	21	-5.78	-1.79	3.99
		4	30	24	-5.50	1.52	7.01
		5	29	26	-6.34	-1.20	5.14
	Volatility	1	48	39	1.15	1.74	0.60
		2	47	34	2.86	4.23	1.37
		3	47	34	0.19	1.48	1.29
		4	47	34	0.60	1.79	1.19
		5	47	38	0.19	2.58	2.38
Equity	Fee	1	396	310	2.96	2.74	-0.22
		2	379	304	2.59	3.15	0.56
		3	373	311	2.05	0.76	-1.29
		4	371	309	2.22	0.76	-1.46
		5	380	292	2.34	3.22	0.88
	Volatility	1	239	166	4.31	4.14	-0.17
		2	239	188	2.29	1.60	-0.69
		3	239	196	1.98	2.15	0.17
		4	239	185	1.81	2.30	0.48
		5	239	198	1.48	2.27	0.79
Fixed Income	Fee	1	92	80	3.13	3.60	0.48
		2	88	76	3.02	4.81	1.79
		3	86	75	2.98	3.09	0.11
		4	95	84	2.42	1.97	-0.46
		5	76	70	2.91	2.03	-0.88
	Volatility	1	61	44	1.83	4.78	2.96
		2	60	48	2.41	3.04	0.63
		3	60	50	2.90	3.05	0.16
		4	60	55	3.77	3.89	0.11
		5	61	59	3.18	5.01	1.83

Source: Morningstar Inc. Data as of 12/31/18.

In the U.S., Australia, and Europe, lower-cost funds produced higher investor returns and higher total returns throughout each asset class. For example, the cheapest quintile of European bond funds produced returns of 3.85% and investor returns of 3%. The priciest quintile produced returns of 2.61% and 1.83%. For U.S. equities, the cheapest quintile produced total returns of 7.66% and investor returns of 6.56%. The priciest fell to 5.79% total return and 3.59% investor return. However, in South Korea total returns followed the same pattern, but investor returns did not.

Exhibit 14 Taiwan Factor Ranking as Average of Five Five-Year Periods, by Asset Class

Group	Factor	Quintile	# of Share Classes (Average)	# of Share Classes Surviving Period (Average)	Average Return %		
					Total	Investor	Gap
Equity	Fee	1	92	81	5.08	5.07	-0.01
		2	120	100	5.41	6.08	0.66
		3	84	69	4.19	4.95	0.76
		4	39	30	4.53	5.33	0.79
		5	40	34	4.34	4.63	0.29
	Volatility	1	57	47	5.69	7.10	1.41
		2	56	49	4.59	4.79	0.20
		3	56	48	4.76	5.31	0.54
		4	56	49	5.85	5.72	-0.13
		5	57	48	5.53	6.53	1.00

Source: Morningstar Inc. Data as of 12/31/18.

Conclusion

Perhaps more important than the size of the gap are the characteristics of funds that produced the best and worst results for investors. We can draw lessons from these fund types about what kinds of funds work best for investors.

In Australia, South Korea, and the United States, investment vehicles requiring a commitment to steady contributions did best. In addition, allocation funds, which tend to damp swings in returns, were used well by investors likely because they were less volatile and sometimes favored in retirement vehicles. More broadly, investors did better with lower-cost, less-volatile funds than high-cost volatile funds. Investors, planners, and fund companies should continue to push in this direction so that more investors can reach their goals. ■■■

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